

RESERVOIR STORAGE

October 2015

At the end of the month, total storage in 114* of the state's major water supply reservoirs was at 25.4 million acre-feet**, or 82% of their total conservation storage capacity. This is 823,172 acre-feet more than a month ago and 6.11 million acre-feet more than the storage at this time last year.

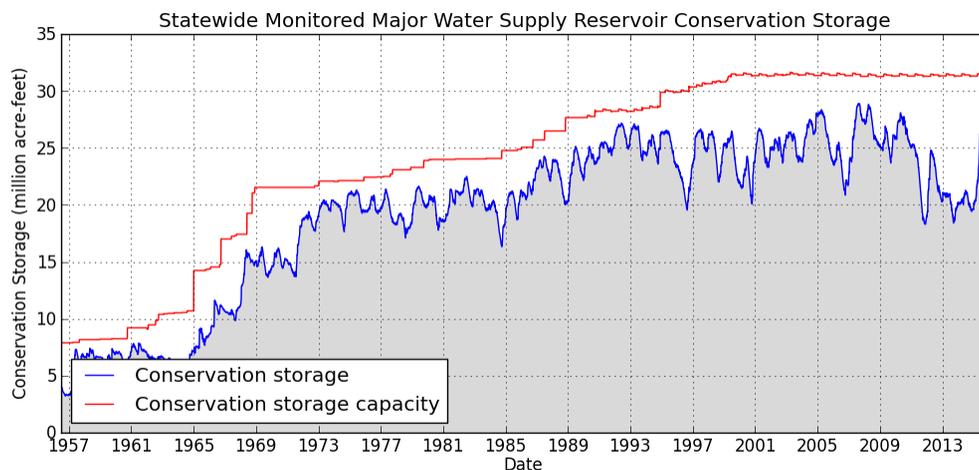
Forty-three (43) reservoirs held 100% of conservation storage capacity, primarily in the North Central (30) and East (9) regions. Four (4) reservoirs remain below 10% full: Palo Duro (5%), Abilene (3%), Twin Buttes (5%), E.V. Spence (9%).

Total combined storage was greater than 70% in the East (93%), North Central (96%), Upper Coast (100%), South Central (85%) and Trans-Pecos (89%) regions. The regions with the lowest percentage storage were the High Plains (22%), Edwards Plateau (49%) and Southern (48%). Storage declined in 2 regions and increased in 7 regions over the past month.

Elephant Butte reservoir held 182,724 acre-feet, or 9% of storage capacity. This is 14,384 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 Oct		Change since end of Sept 2015		Change since end of Oct 2014		
		2015 (acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)	(%)	
HIGH PLAINS								
Palo Duro Reservoir	61,066	3,228	5	1,662	3	2,052	3	
Meredith, Lake (Texas)	500,000	121,776	24	18,083	4	95,916	19	
Meredith, Lake (Texas & Oklahoma)	779,556	121,776	16	18,083	2	95,916	12	
MacKenzie Reservoir	46,450	7,644	16	59	0	4,207	9	
White River Lake	29,880	9,899	33	-63	-0	8,325	28	
TOTAL	637,396	142,547	22	19,741	3	110,500	17	
LOW ROLLING PLAINS								
Greenbelt Lake	59,968	13,241	22	728	1	6,002	10	
N. Fork Buffalo Crk Reservoir	15,400	10,844	70	-66	-0	10,813	70	
Kemp, Lake	245,307	176,963	72	767	0	114,938	47	
Millers Creek Reservoir	26,768	23,645	88	-450	-2	21,649	81	
Alan Henry Reservoir	94,808	90,803	96	393	0	19,561	21	
Stamford, Lake	51,570	43,380	84	-595	-1	37,876	73	
J B Thomas, Lake	199,931	147,670	74	-663	-0	55,007	28	
Fort Phantom Hill, Lake	70,030	51,732	74	9,030	13	29,693	42	
Sweetwater, Lake	12,267	1,346	11	9	0	-325	-3	
Colorado City, Lake	30,758	8,779	29	-121	-0	1,997	6	
Champion Creek Reservoir	41,580	9,233	22	3,802	9	6,770	16	
Abilene, Lake	7,900	267	3	1	0	no data		
Coleman, Lake	38,075	25,885	68	-14	-0	13,662	36	
Hords Creek Lake	8,443	3,166	37	-26	-0	18	0	
TOTAL	902,805	606,954	67	12,795	1	317,661	35	
NORTH CENTRAL								
Nocona, Lake (Farmers Crk)	21,444	20,739	97	929	4	13,906	65	
Hubert H Moss Lake	24,058	24,058	100	1,582	7	4,050	17	
Texoma, Lake (Texas)	1,258,113	1,189,888	95	6,640	1	148,328	12	
Texoma, Lake (Texas & Oklahoma)	2,525,281	1,189,888	47	6,640	0	148,328	6	
*Pat Mayse Lake	113,683	105,731	93	-1,595	-1	no data		
Kickapoo, Lake	86,345	78,137	90	0	0	54,783	63	
Arrowhead, Lake	230,359	213,463	93	-834	-0	169,777	74	
Bonham, Lake	11,027	8,747	79	76	1	631	6	
Crook, Lake	9,195	7,828	85	50	1	-1,263	-14	
Amon G Carter, Lake	19,266	19,266	100	1,004	5	9,519	49	
Ray Roberts, Lake	788,167	788,167	100	0	0	194,219	25	
Jim Chapman Lake (Cooper)	260,332	260,332	100	32,086	12	169,091	65	
Graham, Lake	45,288	41,962	93	2,045	5	24,244	54	
*Lost Creek Reservoir	11,950	11,950	100	491	4	4,574	38	
Bridgeport, Lake	366,236	334,265	91	10,311	3	193,068	53	
Lewisville Lake	563,228	563,228	100	0	0	175,698	31	
Lavon Lake	406,388	350,336	86	6,947	2	159,354	39	
Hubbard Creek Reservoir	318,067	114,381	36	11,072	3	68,508	22	
Possum Kingdom Lake	523,873	523,873	100	19,738	4	192,157	37	
*Mineral Wells, Lake	6,760	6,760	100	608	9	3,407	50	
Weatherford, Lake	17,812	14,081	79	-292	-2	4,842	27	
Eagle Mountain Lake	179,880	168,705	94	4,896	3	68,971	38	
Worth, Lake	33,495	30,160	90	1,151	3	8,209	25	
Grapevine Lake	164,703	164,703	100	0	0	69,992	42	
Ray Hubbard, Lake	452,040	452,040	100	52,050	12	184,244	41	
New Terrell City Lake	8,583	8,583	100	929	11	1,916	22	

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	Conservation Storage Capacity (acre-feet)	Conservation Storage end of Oct 2015 (acre-feet)	(%)	Change since end of Sept 2015 (acre-feet)	(%)	Change since end of Oct 2014 (acre-feet)	(%)
(North Central Continue)							
Palo Pinto, Lake	26,766	25,318	95	2,842	11	22,370	84
Benbrook Lake	85,648	64,471	75	3,172	4	6,351	7
Arlington, Lake	40,188	40,188	100	9,795	24	17,289	43
Joe Pool Lake	175,358	175,358	100	3,026	2	12,996	7
*Cisco, Lake	25,895	17,825	69	154	1	5,873	23
Leon, Lake	26,476	26,476	100	2,714	10	9,991	38
Granbury, Lake	125,756	123,864	98	2,848	2	54,387	43
Pat Cleburne, Lake	26,008	26,008	100	4,474	17	8,563	33
Waxahachie, Lake	10,780	10,780	100	1,856	17	3,222	30
Bardwell Lake	46,122	46,122	100	3,307	7	6,283	14
Proctor Lake	55,457	51,664	93	0	0	35,012	63
Whitney, Lake	553,344	553,344	100	54,378	10	192,324	35
Aquila Lake	43,243	43,243	100	5,690	13	6,025	14
Navarro Mills Lake	49,827	49,827	100	4,607	9	7,990	16
*Halbert, Lake	6,033	6,033	100	1,162	19	2,058	34
Richland-Chambers Reservoir	1,087,839	1,087,839	100	45,337	4	380,848	35
*Brownwood, Lake	128,839	115,527	90	-2,150	-2	54,580	42
Waco, Lake	189,418	189,418	100	17,997	10	23,653	12
Limestone, Lake	208,014	208,014	100	34,576	17	26,182	13
Belton Lake	435,225	435,225	100	9,770	2	130,572	30
Stillhouse Hollow Lake	227,771	227,771	100	7,771	3	71,302	31
Georgetown, Lake	36,823	29,613	80	3,506	10	9,388	25
Granger Lake	50,779	50,779	100	370	1	0	0
Tawakoni, Lake	871,685	871,685	100	46,833	5	365,084	42
Mountain Creek, Lake	22,850	22,850	100	0	0	0	0
Squaw Creek, Lake	151,250	151,250	100	0	0	1,921	1
TOTAL	10,627,686	10,151,875	96	413,919	4	3,376,489	32
EAST							
Wright Patman Lake	135,069	135,069	100	-92,373	-68	0	0
*Sulphur Springs, Lake	17,747	17,747	100	2,916	16	1,814	10
Cypress Springs, Lake	66,756	64,638	97	3,025	5	-223	-0
Bob Sandlin, Lake	190,822	184,229	97	8,451	4	15,330	8
Caddo, Lake	29,898	29,898	100	180	1	no data	
Martin, Lake	75,726	64,135	85	-678	-1	-1,041	-1
Monticello, Lake	34,740	34,740	100	649	2	265	1
Fork Reservoir, Lake	605,061	579,587	96	24,882	4	129,848	21
O the Pines, Lake	241,363	241,363	100	-11,062	-5	2,813	1
Cedar Creek Reservoir in Trinity	644,686	644,686	100	61,447	10	165,917	26
Athens, Lake	29,503	29,503	100	2,723	9	3,025	10
Palestine, Lake	373,199	373,199	100	36,033	10	17,641	5
Tyler, Lake	72,073	68,373	95	5,480	8	90	0
Murvaul, Lake	38,285	33,334	87	195	1	-3,249	-8
Jacksonville, Lake	25,670	23,763	93	-56	-0	-1,354	-5
Nacogdoches, Lake	39,522	33,369	84	-641	-2	-4,372	-11
Houston County Lake	17,113	15,557	91	308	2	-1,401	-8
Sam Rayburn Reservoir	2,857,077	2,561,645	90	-119,712	-4	-14,794	-1
Toledo Bend Reservoir (Texas)	2,236,450	1,922,020	86	7,200	0	-27,717	-1
Toledo Bend Reservoir (TX & LA)	4,472,900	1,922,020	43	7,200	0	-27,717	-1
*Livingston, Lake	1,785,348	1,785,348	100	0	0	36,309	2
B A Steinhagen Lake	66,961	56,343	84	-4,830	-7	-5,032	-8
Conroe, Lake	410,988	381,841	93	-737	-0	-16,965	-4
TOTAL	9,994,057	9,280,387	93	-76,600	-1	296,904	3

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	Conservation Storage Capacity (acre-feet)	Conservation Storage end of Oct 2015 (acre-feet)	(%)	Change since end of Sept 2015 (acre-feet)	(%)	Change since end of Oct 2014 (acre-feet)	(%)
TRANS-PECOS							
**Red Bluff Reservoir	151,110	134,147	89	-2,489	-2	-4,564	-3
TOTAL	151,110	134,147	89	-2,489	-2	-4,564	-3
EDWARDS PLATEAU							
Oak Creek Reservoir	39,210	9,730	25	-206	-1	3,523	9
E V Spence Reservoir	517,272	46,332	9	10,317	2	32,546	6
O C Fisher Lake	115,742	19,017	16	7,679	7	18,157	16
*O H Ivie Reservoir	554,340	70,890	13	-4,727	-1	-14,819	-3
Twin Buttes Reservoir	182,454	9,692	5	-521	-0	3,815	2
Nasworthy	9,615	7,115	74	no data		-666	-7
Brady Creek Reservoir	28,808	9,263	32	69	0	1,309	5
Buchanan, Lake	816,904	601,786	74	28,962	4	311,402	38
Inks, Lake	13,962	12,922	93	-91	-1	-68	-0
Lyndon B Johnson, Lake	115,249	109,905	95	-792	-1	-365	-0
*Amistad Reservoir (Texas)	1,840,849	1,170,719	64	38,140	2	54,672	3
*Amistad Reservoir (TX & Mexico)	3,275,532	1,170,719	36	38,140	1	54,672	2
TOTAL	4,234,405	2,067,371	49	78,830	2	409,506	10
SOUTH CENTRAL							
Travis, Lake	1,113,348	908,215	82	49,673	4	553,658	50
*Austin, Lake	23,972	23,081	96	263	1	324	1
Somerville Lake	147,104	147,104	100	650	0	10,983	7
Canyon Lake	378,781	378,781	100	21,184	6	90,315	24
Medina Lake	254,823	160,816	63	-8,130	-3	151,919	60
*Coleto Creek Reservoir	31,040	29,023	94	1,304	4	7,768	25
TOTAL	1,949,068	1,647,020	85	64,944	3	814,967	42
UPPER COAST							
Houston, Lake	120,686	120,686	100	0	0	0	0
Texana, Lake	159,566	159,566	100	17,703	11	33,748	21
TOTAL	280,252	280,252	100	17,703	6	33,748	12
SOUTHERN							
Choke Canyon Reservoir	695,262	244,383	35	-1,820	-0	63,226	9
Corpus Christi, Lake	256,961	221,204	86	3,318	1	92,194	36
*Falcon Reservoir (Texas)	1,551,007	737,262	48	41,403	3	346,213	22
*Falcon Reservoir (TX & Mexico)	2,646,817	737,262	28	41,403	2	346,213	13
TOTAL	2,503,230	1,202,849	48	42,901	2	501,633	20
STATE TOTAL	31,128,899	25,379,255	82	823,172	3	6,114,565	20
* 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	182,724	9	14,384	1	-698	-0

Note:

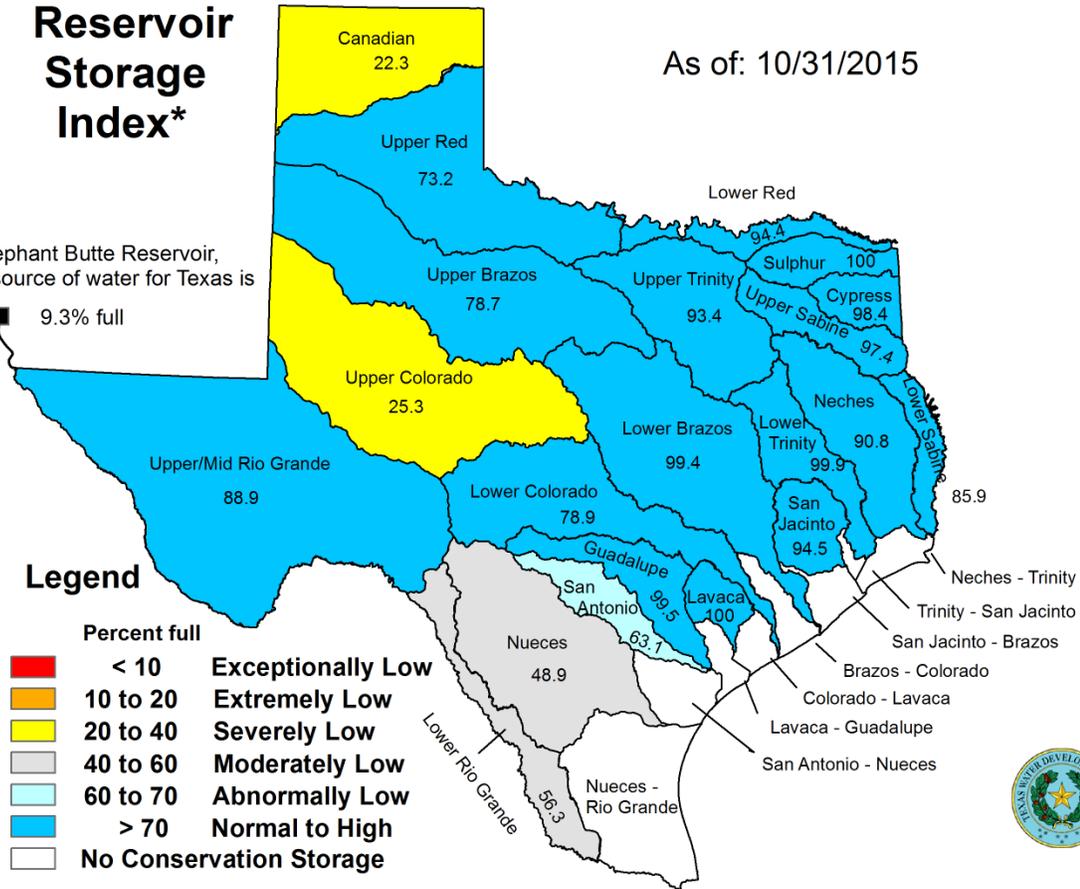
Conservation storage capacity is the space available to store water above the lowest outlet and below the top of conservation pool, or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included is any water in flood control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

OCTOBER RESERVOIR CONDITIONS

As of: 10/31/2015

Reservoir Storage Index*

Elephant Butte Reservoir, a source of water for Texas is 9.3% full



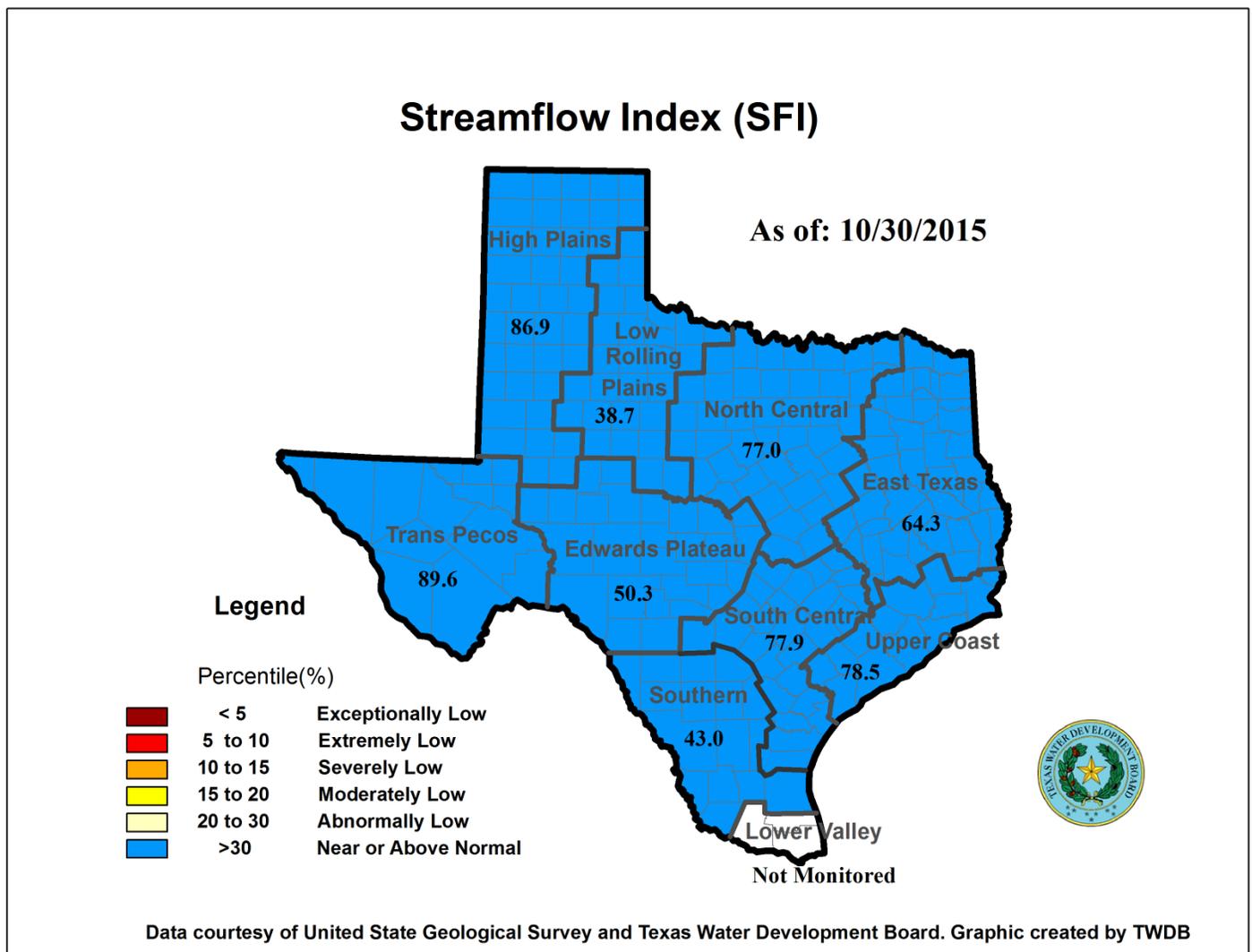
*Percent of combined conservation storage capacity of 114 major water supply reservoirs by sub-basin (dead pools are excluded)

OCTOBER STREAMFLOW CONDITIONS

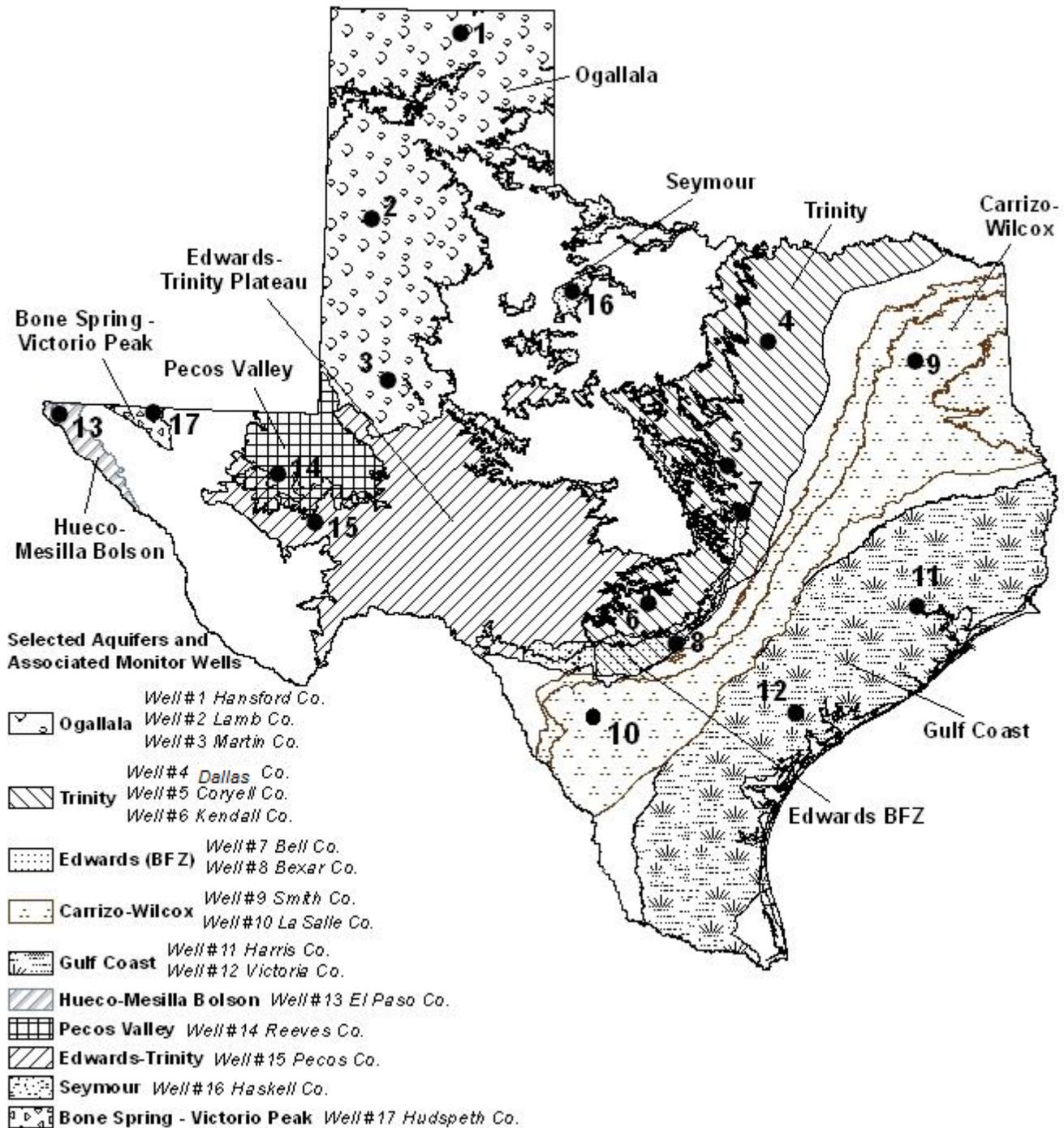
The computed 30-day mean flow status for 29 reporting index stations monitored this month is presented below:

Flow Status	Number of Stations
Normal to High (>30%)	25
Abnormally Low (20-30%)	2
Moderately Low (15-20%)	1
Severely Low (10-15%)	0
Extremely Low (5-10%)	0
Exceptionally Low (<5%)	1

Flows went up at 25 index stations and down at 4 stations. On a regional basis, flows in this month at index stations were near or above normal in all 9 regions. Streamflow in the Lower Valley region is not monitored.



OCTOBER 2015 GROUNDWATER LEVELS IN OBSERVATION WELLS



October, 2015

Water level measurements were available for all of the seventeen key monitoring wells in the state. Water levels rose in nine of the monitoring wells since the beginning of October, ranging from 0.22 feet in the Smith County Carrizo-Wilcox Aquifer well to 16.95 feet in the Pecos County Edwards-Trinity (Plateau) Aquifer well. Water levels declined in seven monitoring wells, ranging from 0.14 feet in the Lamb County Ogallala Aquifer well to 6.7 feet in the LaSalle County Carrizo-Wilcox Aquifer well. The J-17 well in San Antonio recorded a water level of 78.81 feet below land surface or 652.19 feet above mean sea level. Stage I restrictions are currently in place for the San Antonio portion of the Edwards BFZ, with water levels at 7.81 feet below Stage I critical management levels, in that segment of the Edwards Aquifer.

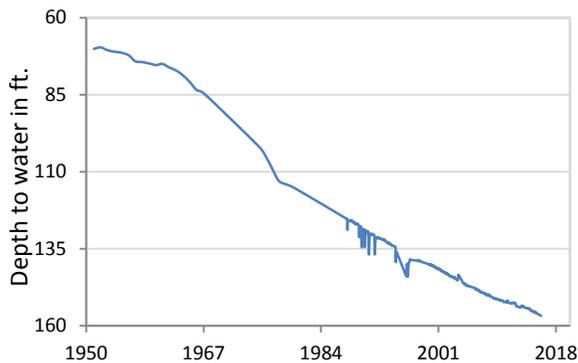
*IDs used in this publication on the aquifer map to indicate the monitoring well location (IDs 1 - 17) are different than the TWDB's six- or seven-digit state well "identification" number.

Monitoring Well	October	September	month change	year change	historical change	first measured
(1) Hansford 0354301	156.77	156.57	-0.2	-1.08	-86.65	1951
(2) Lamb 1053602	146.15	146.01	-0.14	-1.19	-118	1951
(3) Martin 2739903	142.32	142.7	0.38	0.02	-37.43	1964
(4) Dallas 3319101	495.2	493.55	-1.65	-5.63	-273.2	1954
(5) Coryell 4035404	515.53	517.12	1.59	-7.14	-223.53	1955
(6) Kendall 6802609	136.93	136.11	-0.82	18.85	-76.93	1975
(7) Bell 5804816	122.76	123.05	0.29	4.45	0.37	2008
(8) Bexar 6837203	78.81	84.31	5.5	22.49	-32.17	1932
(9) Smith 3430907	438.72	438.94	0.22	1.34	-72.72	1987
(10) La Salle 7738103	475.97	469.27	-6.7	34.83	-222.9	2003
(11) Harris 6514409	190.26	189.73	-0.53	3.79	-54.76*	1956
(12) Victoria 8017502	35.52	36.15	0.63	3.8	-1.52	1958
(13) El Paso 4913301	295.21	294.18	-1.03	1.11	-63.31	1964
(14) Reeves 4644501	158.04	161.96	3.92	1.6	-65.95	1952
(15) Pecos 5216802	217.58	234.53	16.95	9.5	29.3	1976
(16) Haskell 2135748	47.84	NA	NA	1.3	-6.51	2002
(17) Hudspeth 4807516	146.32	152.3	5.98	-2.05	-42.4	1966

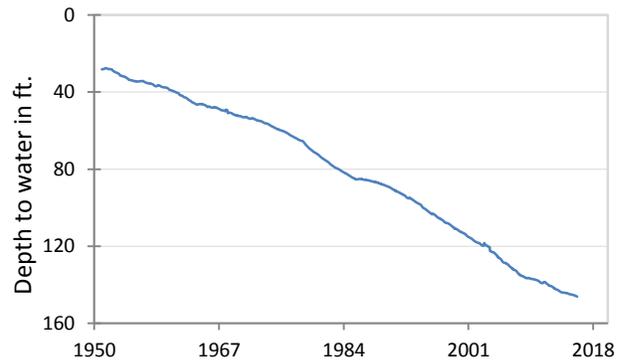
*change since the original measurement of 135.5 feet below land surface in 1947 (measurement not shown on the hydrograph)

OCTOBER GROUNDWATER LEVELS IN OBSERVATION WELLS

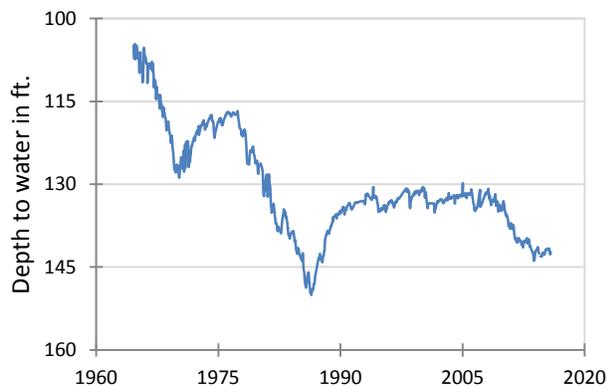
(1) State Well ID 03-54-301
Near Spearman, Hansford County
Ogallala Aquifer



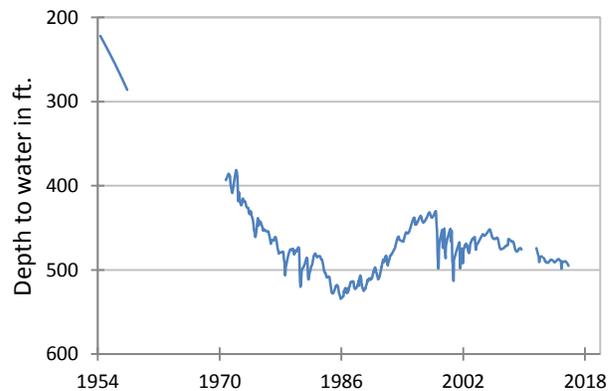
(2) State Well ID 10-53-602
Near Earth, Lamb County
Ogallala Aquifer



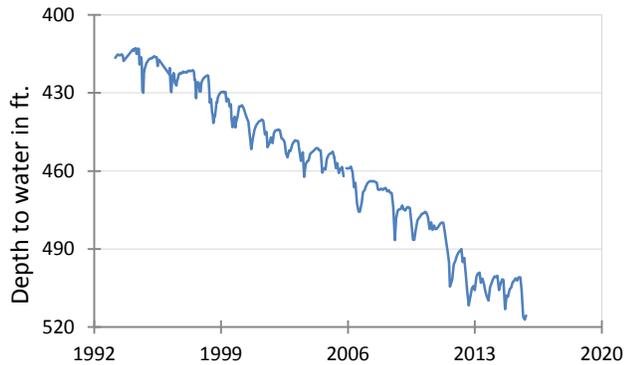
(3) State Well ID 27-39-903
Northwest Martin County
Ogallala Aquifer



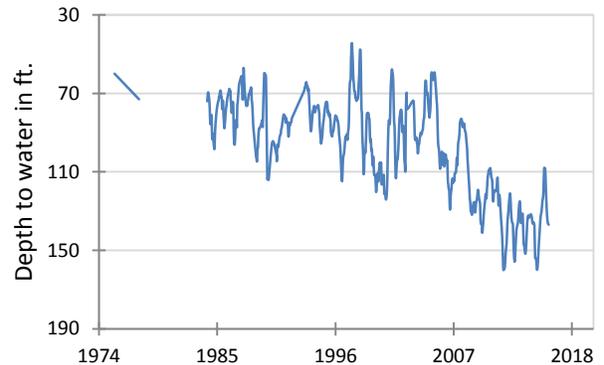
(4) State Well ID 33-19-101
Southeast Dallas, Dallas County
Twin Mountains Formation-Trinity Aquifer



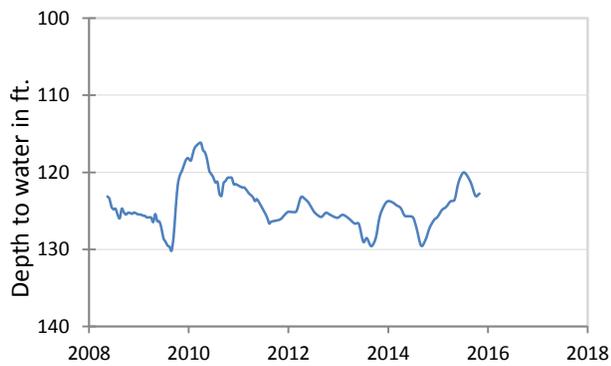
**(5) State Well ID 40-35-404
Gatesville, Coryell County
Hosston Formation-Trinity Aquifer**



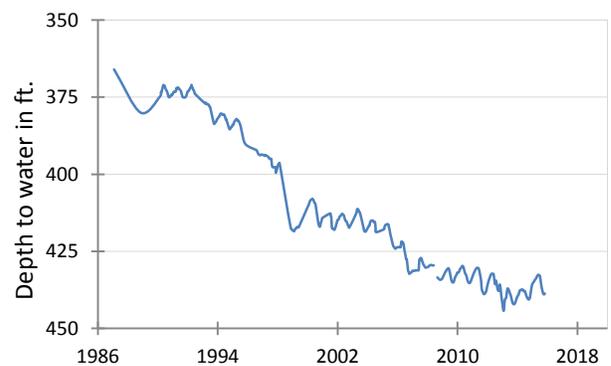
**(6) State Well ID 68-02-609
Waring, Kendall County
Cow Creek Formation-Trinity Aquifer**



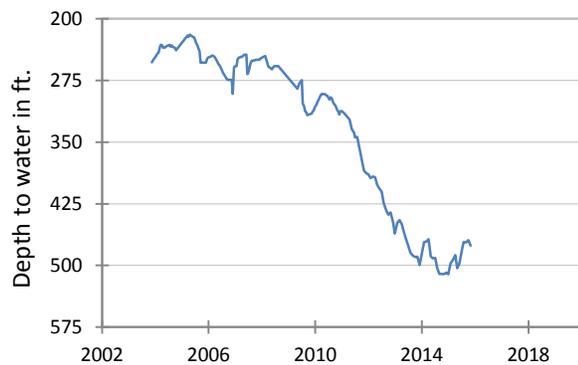
**(7) State Well ID 58-04-816
Near Salado, Bell County
Edwards (BFZ) Aquifer**



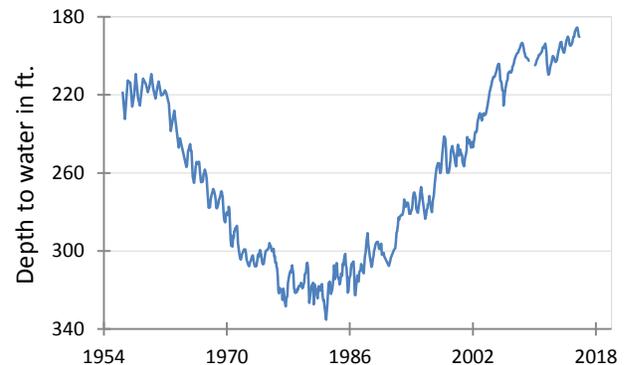
**(9) State Well ID 34-30-907
Red Springs, Smith County
Carrizo-Wilcox Aquifer**



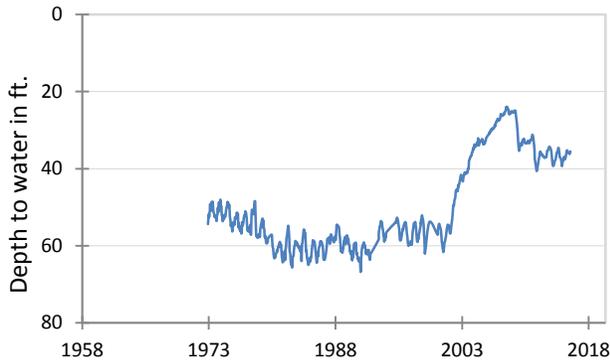
**(10) State Well ID 77-38-103
Near Cotulla, La Salle County
Carrizo-Wilcox Aquifer**



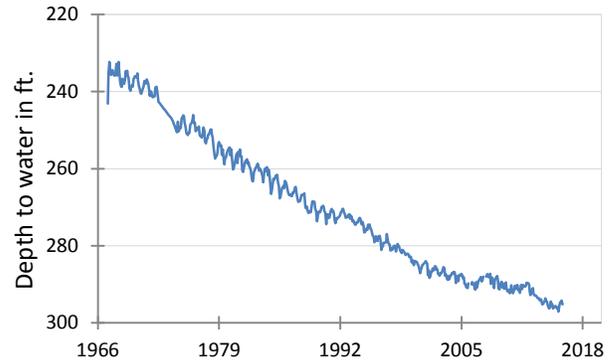
**(11) State Well ID 65-14-409
Alief, Harris County
Evangeline Formation-Gulf Coast Aquifer**



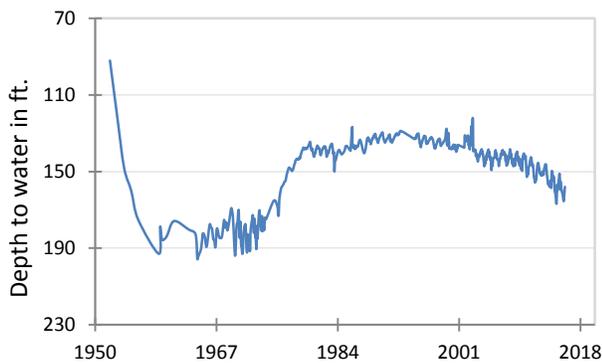
(12) State Well ID 80-17-502
Near Bloomington, Victoria County
Lissie Formation-Gulf Coast Aquifer



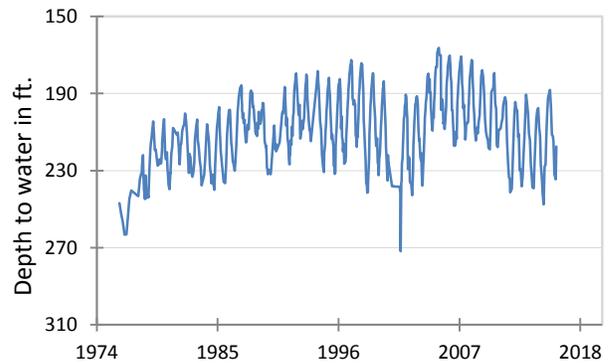
(13) State Well ID 49-13-301
El Paso, El Paso County
Hueco-Mesilla Bolson Aquifer



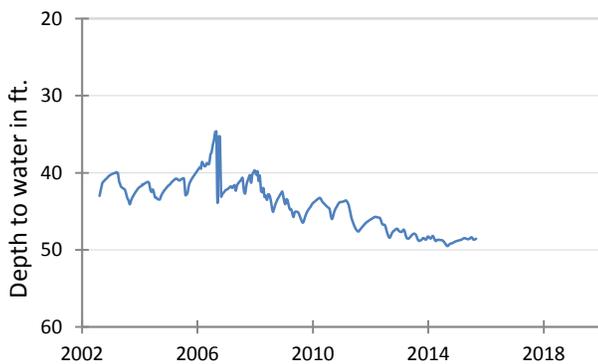
(14) State Well ID 46-44-501
Near Pecos, Reeves County
Pecos Valley Aquifer



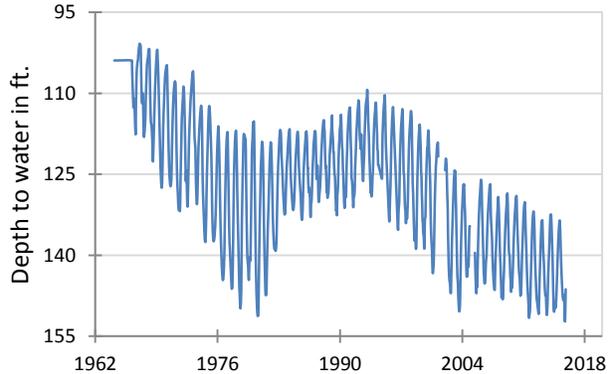
(15) State Well ID 52-16-802
Fort Stockton, Pecos County
Edwards-Trinity (Plateau) Aquifer



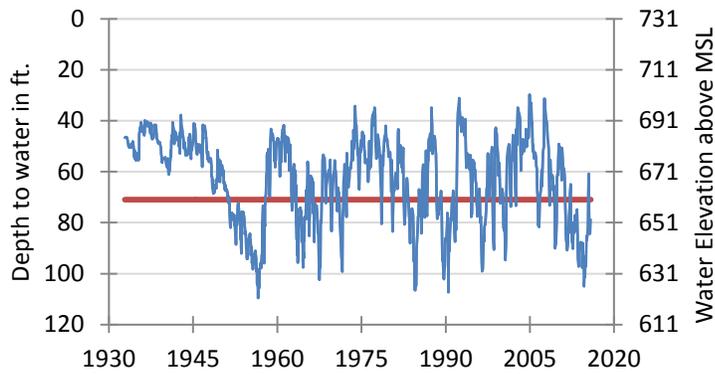
(16) State Well ID 21-35-748
Near O'Brien, Haskell County
Seymour Aquifer



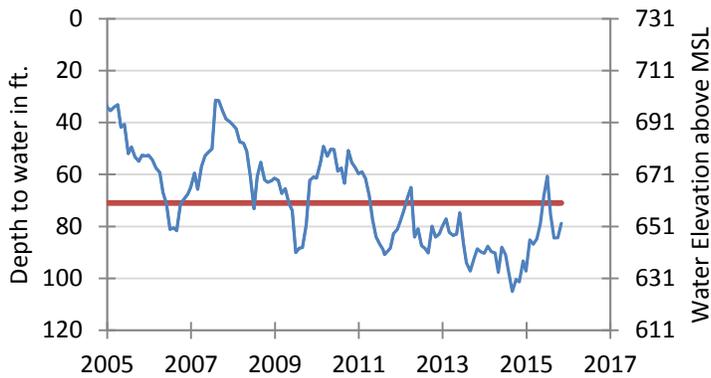
(17) State Well ID 48-07-516
Dell City, Hudspeth County
Bone Spring - Victorio Peak Aquifer



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

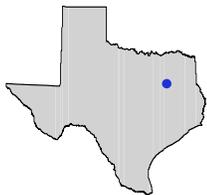


The late October water-level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above mean sea level, was 78.81 feet below land surface, or 652.19 feet above mean sea level. This was 5.5 feet above last month's measurement, 22.49 feet above last year's measurement, and 32.17 feet below the initial measurement recorded in 1932.



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

HYDROGRAPH OF THE MONTH



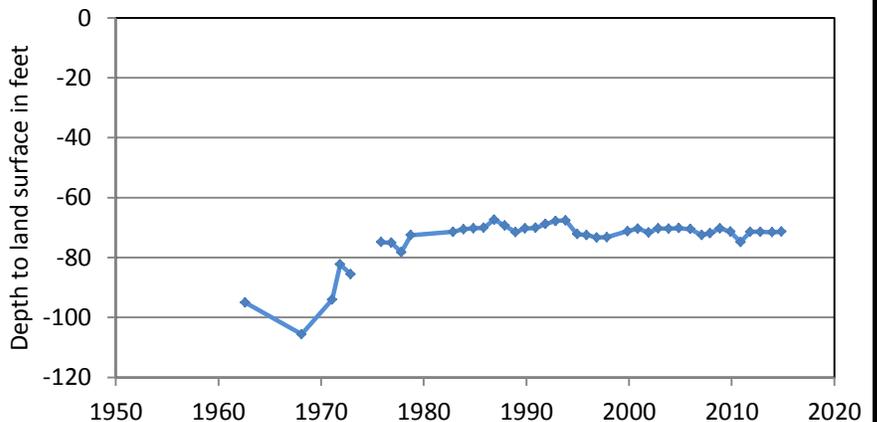
Each month this space features a new hydrograph (marked with the • symbol on the map) depicting different aquifers and different conditions in Texas.

Nacatoch Aquifer

Well #3353603, 259 feet deep
unused, northern Navarro County

The Nacatoch Aquifer is a minor aquifer occurring in a narrow band across northeast Texas. The aquifer consists of the Nacatoch Sand, composed of sequences of sandstone separated by impermeable layers of mudstone or clay. Freshwater saturated thickness averages about 50 feet. The groundwater in the aquifer is typically alkaline, high in sodium bicarbonate, and soft. Water from the aquifer is extensively used for domestic and livestock purposes.

A few cities that have also historically pumped from the aquifer for public supply have converted to surface water. As a result of reduced pumping in some systems, the declining water levels that had developed in their areas are stabilizing. However, systems maintaining standby wells to augment supplies during the recent drought may anticipate a resumption of declining water levels.



The lowest measurement in this now unused well in the period of record was recorded by the U.S. Geological Survey at 105.6 feet below land surface in 1968. Since the mid-70s, the water level in this well, now measured by the TWDB, has experienced a rebound, possibly in response to reduced pumping as nearby municipalities have increasingly developed surface-water supplies.

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