

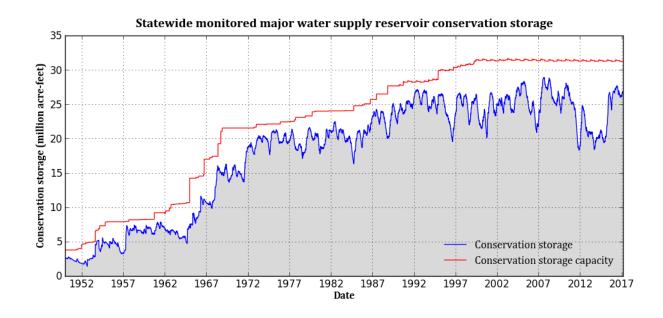


### FEBRUARY 2017 RESERVOIR STORAGE\*

At the end of February 2017, total conservation storage\* in 115 of the state's major water supply reservoirs was at 27.0 million acre-feet or 84 percent of total conservation storage capacity. This is approximately 0.17 million acre-feet more than a month ago but 0.07 million acre-feet less than storage at this time last year.

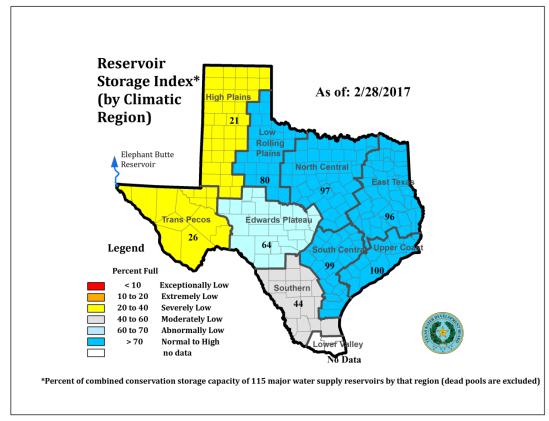
Fifty-three (53) reservoirs held 100 percent of conservation storage capacity, primarily in the North Central (33 reservoirs) and East (12 reservoirs) regions. One reservoir, Palo Duro (2 percent), remained below 10 percent full.

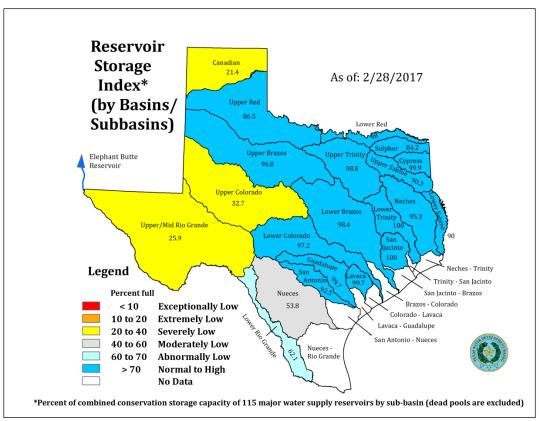
Total combined storage was at or above normal (storage ≥70 percent) in the Upper Coast (100 percent), South Central (99 percent), North Central (97 percent), East (96 percent), and Low Rolling Plains (80 percent) regions. The region with the lowest percentage of storage was the High Plains (21 percent) region. Overall, storage increased in seven regions but declined in two regions over the past month.



<sup>\*</sup>Storage is based on end of the month data in 114 major reservoirs that represent 96 percent of the total conservation storage capacity of 188 major water supply reservoirs in Texas plus Elephant Butte reservoir in New Mexico. Major reservoirs are defined as having a conservation storage capacity of 5,000 acre-feet or greater. Only the Texas share of storage in border reservoirs is counted.

#### FEBRUARY 2017 RESERVOIR CONDITIONS





<sup>\*</sup>Reservoir Storage Index is defined as the percent full of conservation storage capacity.

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS									
Name of lake or reservoir	Conservation storage capacity	storage capacity end of February 2017		Change since end of January	Change since end of February 2016				
	(acre-feet)	(acre-feet)	(%)	(acre-feet)**	(%)	(acre-feet)**	(%)		
HIGH PLAINS  MacKennia Programain 20 (40)									
MacKenzie Reservoir	46,450	6,893	15	-38	-0	-640	-1		
Meredith, Lake	500,000	119,073	24	1,016	0	-12,998	-3		
Palo Duro Reservoir	61,066	935	2	-79	-0	-940	-2		
White River Lake	29,880	7,531	25	182	1	-2,332	-8		
TOTAL	637,396	134,432	21	1,081	0	-16,910	-3		
		LOW ROLLING P		0.0	_				
Abilene, Lake	7,900	7,816	99	83	1	5,538	70		
Alan Henry Reservoir	94,808	90,750	96	340	0	1,693	2		
Champion Creek Reservoir	41,580	15,774	38	84 0		6,311	15		
Coleman, Lake	38,075	37,841	99	2,040	5	7,577	20		
Colorado City, Lake	30,758	14,565	47	-122	-0	6,035	20		
Fort Phantom Hill, Lake	70,030	70,030	100	976	1	1,210	2		
Greenbelt Lake	59,968	16,434	27	77	0	2,215	4		
Hords Creek Lake	8,443	7,368	87	431	5	3,309	39		
J. B. Thomas, Lake	199,931	126,370	63	-1,577	-1	-15,276	-8		
Kemp, Lake	245,307	245,307	100	0	0	22,694	9		
Millers Creek Reservoir	26,768	26,768	100	0	0	0	0		
North Fork Buffalo Creek	15 400	10.401	01	110	4	105	1		
Reservoir	15,400	12,421	81	119	1	-195	-1		
Stamford, Lake	51,570	49,513	96	-248	-0	-2,057	-4		
Sweetwater, Lake	12,267	2,857	23	88	1	1,123	9		
TOTAL	902,805	723,814	80	2,291	0	40,177	4		
	40.055	NORTH CENTE							
Amon G Carter, Lake	19,266	19,266	100	0	0	0	0		
Aquilla Lake	43,243	43,243	100	0	0	0	0		
Arlington, Lake	40,188	39,805	99	1,934	5	-383	-1		
Arrowhead, Lake	230,359	230,070	100	9,313	4	869	0		
Bardwell Lake	46,122	46,122	100	0	0	0	0		
Belton Lake	435,225	435,225	100	0	0	0	0		
Benbrook Lake	85,648	74,932	87	2,797	3	-9,507	-11		
Bonham, Lake	11,027	8,253	75	82	1	-2,774	-25		
Bridgeport, Lake	366,236	366,236	100	0	0	0	0		
*Brownwood, Lake	128,839	128,839	100	0	0	257	0		
*Cisco, Lake	25,895	25,895	100	0	0	6,218	24		
Crook, Lake	9,195	8,976			6	-219	-2		
Eagle Mountain Lake	179,880	179,880	100	0	0	0	0		
Georgetown, Lake	36,823	36,823	100	0	0	0	0		
Graham, Lake	45,288	45,288	100	0	0	0	0		
Granbury, Lake	132,949	132,378	100	-571	-0	-571	-0		
Granger Lake	51,822	51,822	100	0	0	0	0		
Grapevine Lake	164,703	164,703	100	0	0	0	0		
*Halbert, Lake	6,033	5,445	90	50	1	215	4		
Hubbard Creek Reservoir	318,067	315,114	99	5,116	2	169,878	53		
Hubert H Moss Lake	24,058	23,874	99	53	0	1,544	6		
Jim Chapman Lake (Cooper)	260,332	199,980	77	-475	-0	-60,352	-23		
Joe Pool Lake	175,358	175,358	100	0	0	0	0		
Kickapoo, Lake	86,345	80,595	93	1,346	2	-5,750	-7		
Lavon Lake	406,388	361,860	89	12,091	3	-44,528	-11		
Leon, Lake	27,762	23,963	86	609	2	-3,572	-13		
Lewisville Lake	563,228	563,228	100	0	0	0	0		
Limestone, Lake	203,780	203,780	100	6,527	3	124	0		
*Lost Creek Reservoir	11,950	11,950	100	0	0	0	0		
*Mineral Wells, Lake	5,273	5,273	100	0	0	0	0		
Mountain Creek, Lake	22,850	22,850	100	0	0	2,129	9		

CONSERVATIO	N STORAGE DA	ATA FOR SELE	CTED N	MAJOR TEXAS	RESE	RVOIRS	
Name of lake an nagaryain	Conservation	Conservation st end of February		Change since end of January 2		Change since end of February 2016	
Name of lake or reservoir	storage capacity (acre-feet)	(acre-feet)	(%)	(acre-feet)**	(%)	(acre-feet)**	(%)
	(acre reet)	(North Central cont		(acre reet)	(70)	(acre reer)	(70)
Navarro Mills Lake	49,827	49,827	100	0	0	0	0
New Terrell City Lake	8,583	8,583	100	103	1	0	0
Nocona, Lake (Farmers Crk)			100				0
Palo Pinto, Lake	21,444 26,766	21,444 25,125	94	280	1 0	0	-6
	26,008			1 106		-1,641 0	
Pat Cleburne, Lake		26,008	100 1,196		5 1		0
*Pat Mayse Lake	113,683	101,804	90	·		-11,879	-10
Possum Kingdom Lake Proctor Lake	523,873	522,568 54,762	100	100 -1,142		-1,305 0	-0 0
Ray Hubbard, Lake	54,762 439,559	427,390	97	1,056 2			-3
				8,114 0	2	-12,169 0	
Ray Roberts, Lake Richland-Chambers Reservoir	788,167	788,167 1,085,270	100		0	-2,569	0
	1,087,839		100		20,856 2		-0
Squaw Creek, Lake	151,250	150,649	100	-601	-0	1,571	1
Stillhouse Hollow Lake	227,771	227,771	100	0	0	0	0
Tawakoni, Lake	871,685	774,965	89	-1,385	-0	-96,720	-11
Texoma, Lake (Texas) Texoma, Lake (Texas &	1,258,113	1,243,987	99	9,946	1	55,501	4
Oklahoma)	2,525,281	2,487,981	99	19,892	1	111,002	4
Waco, Lake	189,418	189,418	100	729	0	0	0
Waxahachie, Lake	10,780	10,780	100	0	0	0	0
Weatherford, Lake	17,812	17,541	98	301	2	-271	-2
Whitney, Lake	553,344	525,245	95	38,591	7	17,654	3
Worth, Lake	33,495	33,495	100	615	2	0	0
TOTAL	10,618,311	10,315,825	97	119,234	1	1,750	0
TOTAL	10,010,011	EAST		117,201		1,730	
Athens, Lake	29,503	29,503	100	0	0	0	0
B A Steinhagen Lake	66,961	64,864	97	6,193	9	-209	-0
Bob Sandlin, Lake	190,822	190,822	100	0	0	0	0
Caddo, Lake	29,898	29,898	100	7,234	24	0	0
Cedar Creek Reservoir in Trinity	644,686	644,359	100	981	0	-327	-0
Conroe, Lake	410,988	410,988	100	0	0	0	0
Cypress Springs, Lake	66,756	66,014	99	-612	-1	-742	-1
Fork Reservoir, Lake	605,061	552,725	91	5,179	1	-52,336	-9
Houston County Lake	17,113	17,113	100	0	0	0	0
Jacksonville, Lake	25,670	25,670	100	0	0	0	0
*Livingston, Lake	1,785,348	1,785,348	100	0	0	0	0
Martin, Lake	75,726	72,641	96	2,255	3	-3,085	-4
Monticello, Lake	34,740	34,740	100	0	0	0	0
Murvaul, Lake	38,285	36,752	96	371	1	-1,533	-4
Nacogdoches, Lake	39,522	38,870	98	-22	-0	-86	-0
O' the Pines, Lake	241,363	241,363	100	0	0	0	0
Palestine, Lake	367,303	367,303	100	0	0	0	0
Sam Rayburn Reservoir	2,857,077	2,695,633	94	5,498	0	-161,444	-6
*Sulphur Springs, Lake	17,747	14,962	84	214	1	-2,785	-16
Toledo Bend Reservoir (Texas)	2,236,450	2,013,464	90	-6,566	-0	-208,718	-9
Toledo Bend Reservoir (Texas &	_,_00,100	_,0 _0,101	, 0	5,550	Ü	200,710	,
Louisiana)	4,472,900	4,031,028	90	-13,132	-0	-417,435	-9
Tyler, Lake	72,073	72,073	100	0	0	0	0
Wright Patman Lake	122,593	122,593	100	0	0	0	0
TOTAL	9,975,685	9,527,698	96	20,725	0	-431,265	-4
		TRANS-PECO	S				
Elephant Butte Reservoir (Texas)	852,491	126,762	15	18,682	2	no data	
Elephant Butte Reservoir (Texas	·			•			
& New Mexico)	1,973,358	293,430	15	43,246	2	2 no data	
Red Bluff Reservoir	151,110	133,455	88	-277	-0	-3,389	-2
TOTAL	1,003,601	260,217	26	18,405	2	-3,389	-0

CONSERVATI	ON STORAGE DA	TA FOR SELE	CTED N	MAJOR TEXAS	RESE	RVOIRS				
Name of lake or reservoir	Conservation storage capacity	Conservation storage end of February 2017			Change since end of January 2017		Change since end of February 2016			
	(acre-feet)	(acre-feet)	(%)	(acre-feet)**	(%)	(acre-feet)**	(%)			
EDWARDS PLATEAU										
*Amistad Reservoir (Texas) *Amistad Reservoir (Texas &	1,840,849	1,505,050	82	-25,684	-1	268,429	15			
Mexico)	3,275,532	2,129,193	65	-13,025	-0	189,281	6			
Brady Creek Reservoir	28,808	18,840	65	601	2	8,138	28			
Buchanan, Lake	860,607	817,122	95	0	0	no data				
E. V. Spence Reservoir	517,272	70,903	14	985	0	22,078	4			
Inks, Lake	13,962	12,870	92	-7	-0	no data				
Lyndon B Johnson, Lake	115,249	110,209	96	22,975	20	no data				
Nasworthy	9,615	7,529	78	-144	-1	no data				
Oak Creek Reservoir	39,210	22,871	58	1,147	3	9,033	23			
O. C. Fisher Lake	119,445	17,455	15	-90	-0	-3,223	-3			
*O. H. Ivie Reservoir	554,340	137,039	25	4,165	1	68,876	12			
Twin Buttes Reservoir	182,454	25,081	14	1,721	1	15,264	8			
TOTAL	4,281,811	2,744,969	64	5,669	0	388,595	9			
	, - ,-	SOUTH CENTE								
*Austin, Lake	23,972	22,942	96	12,985	54	no data				
Canyon Lake	378,781	378,781	100	0	0	0	0			
*Coleto Creek Reservoir	31,040	29,844	96	3,321	11	211	1			
Medina Lake	254,823	235,680	92	1,104	0	75,375	30			
Somerville Lake	147,104	147,104	100	0	0	0	0			
Travis, Lake	1,113,348	1,113,348	100	0	0	no data				
TOTAL	1,949,068	1,927,699	99	17,410	1	75,586	4			
	,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	UPPER COAS	T	•		-,				
Houston, Lake	120,686	120,686	100	0	0	0	0			
Texana, Lake	159,566	159,015	100	-459	-0	-551	-0			
TOTAL	280,252	279,701	100	-459	-0	-551	-0			
	•	SOUTHERN								
Choke Canyon Reservoir	662,820	260,688	39	-4,482	-1	38,690	6			
Corpus Christi, Lake	256,961	233,725	91	-5,169	-2	30,514	12			
*Falcon Reservoir (Texas)	1,551,007	601,541	39	-1,840	-0	-190,767	-12			
*Falcon Reservoir (Texas &	-,,	,		_,	Ü	,	- <b>-</b>			
Mexico)	2,646,817	801,007	30	27,310	1	-683,152	-26			
TOTAL	2,470,788	1,095,954	44	-11,491	-0	-121,563	-5			
		STATEWIDE TO	)TAL							
STATEWIDE TOTAL	32,119,717	27,010,309	84	172,865	1	-67,570	-0			

<sup>\*</sup> Conservation volume is used as conservation storage capacity, because the dead storage is unknown.

#### 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 pool 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. Values shown are for the Texas share of conservation storage in all reservoirs.

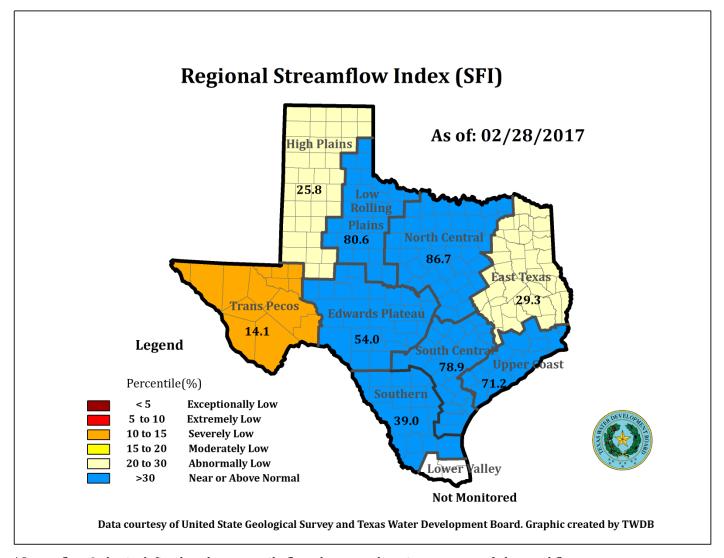
<sup>\*\*</sup>Monthly and yearly changes do not include reservoirs that did not have data in last month or last year, respectively.

### FEBRUARY 2017 STREAMFLOW CONDITIONS

The computed 30-day mean flow status for 29 reporting index stations monitored this month is presented below. Mean flow increased at six index stations and decreased at 19 stations and remained unchanged at four stations.

Streamflow Status	Number of Stations		
Near or Above Normal (>30%)	20		
Abnormally Low (20-30%)	3		
Moderately Low (15-20%)	3		
Severely Low (10-15%)	3		
Extremely Low (5-10%)	0		
Exceptionally Low (<5%)	0		

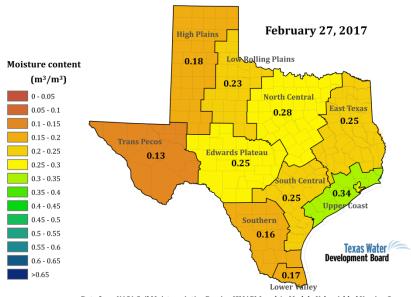
On a regional basis, as shown below, flows at index stations were severely low in the Trans Pecos region and abnormally low in High Plains and East Texas regions but near or above normal in all other regions. Streamflow in the Lower Valley region is not monitored.



<sup>\*</sup>Streamflow Index is defined as the percentile flow that exceeds a given percent of observed flows.

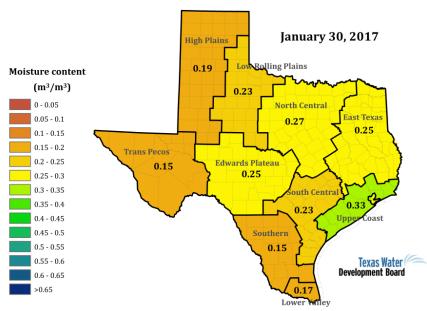
#### FEBRUARY 2017 SOIL MOISTURE CONDITIONS

### **Soil Moisture Condition**



Data from NASA Soil Moisture Active Passive (SMAP) Level 4 - Model - Value Added Version 2
Soil moisture content is shown as volume of water per unit volume of bulk soil. Root zone: 0 to 1 meter depth.

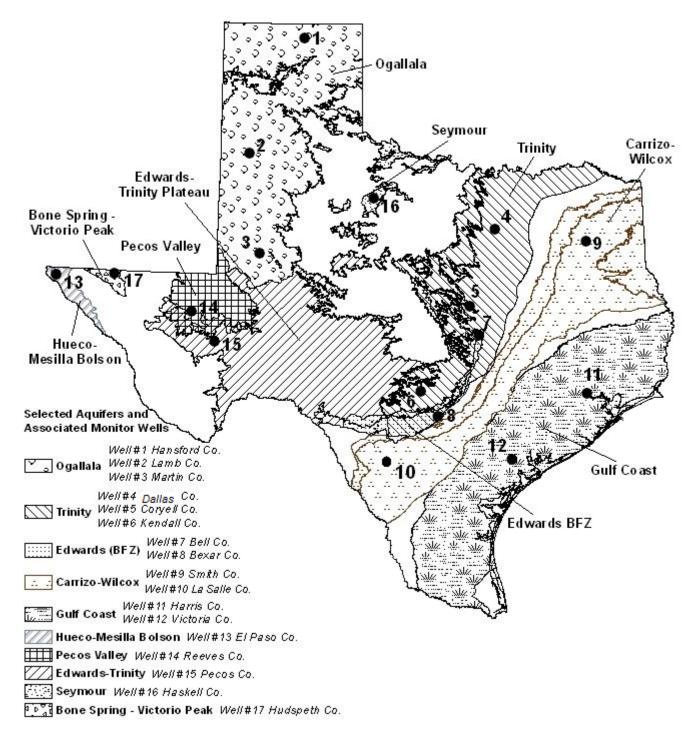
#### **Soil Moisture Condition**



Data from NASA Soil Moisture Active Passive (SMAP) Level 4 - Model - Value Added Version 2
Soil moisture content is shown as volume of water per unit volume of bulk soil. Root zone: 0 to 1 meter depth.

In the past 30 days, (*top image*, February 27, 2017) as compared to soil moisture at the end of January 2017 (*bottom image*), soil moisture condition remained consistent across all regions with modest declines in the Trans Pecos and High Plains regions but modest increases in the, North Central, South Central, Southern, and Upper Coast regions.

### FEBRUARY 2017 GROUNDWATER LEVELS IN OBSERVATION WELLS

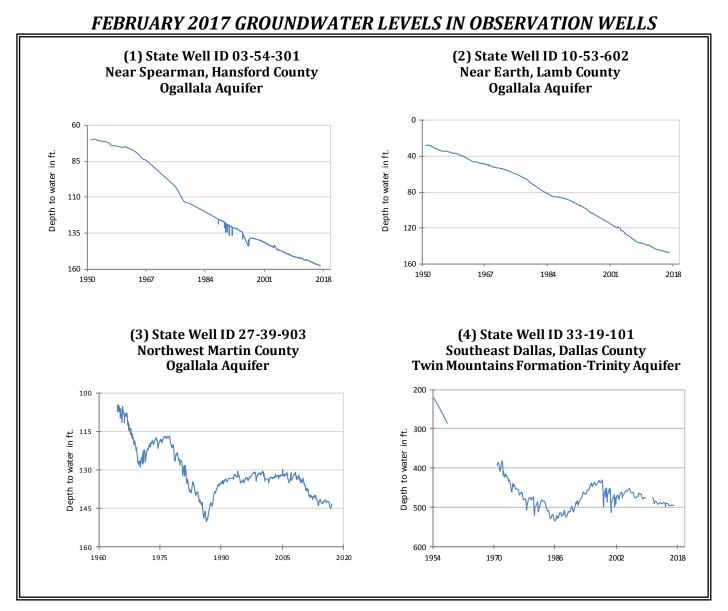


Water-level measurements were available for all 17 key monitoring wells in the state. Water levels rose in 11 monitoring wells since the beginning of February, ranging from an increase of 0.02 feet in the Martin County Ogallala Aquifer well (#3 on map) to 2.68 feet in the Kendall County Cow Creek Formation - Trinity Aquifer well (#6 on map). Water levels declined in six monitoring wells, ranging from a decline of 0.01 feet in the Coryell County Hosston Formation - Trinity Aquifer well (#5 on map) to 11.74 feet in the La Salle County Carrizo-Wilcox Aquifer well (#10 on map). The J-17 well (#8 on map) in San Antonio recorded a water level of 43.61 feet below land surface or 687.39 feet above mean sea level. There are no restrictions currently in place for the San Antonio portion of the Edwards (Balcones Fault Zone) Aquifer, with water levels at 27 feet above the Stage I critical management level.

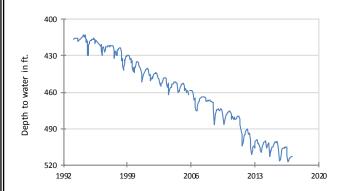
<sup>\*</sup>IDs used in this publication on the aquifer map to indicate the monitoring well location (IDs 1 - 17) are different than the TWDB's six- or seven-digit state well identification number.

Monitoring Well	February	January	Month Change	Year Change	Historical Change	First Measured
(1) Hansford 0354301	157.88	157.78	-0.10	-0.90	-87.76	1951
(2) Lamb 1053602	147.15	147.12	-0.03	-0.64	-118.98	1951
(3) Martin 2739903	143.22	143.24	0.02	-0.90	-38.33	1964
(4) Dallas 3319101	494.26	494.51	0.25	1.81	-272.26	1954
(5) Coryell 4035404	512.96	512.95	-0.01	-5.88	-220.96	1955
(6) Kendall 6802609	110.03	112.71	2.68	8.51	-50.03	1975
(7) Bell 5804816	121.38	121.7	0.32	-1.10	2.13	2008
(8) Bexar 6837203	43.61	45.71	2.10	23.70	3.03	1932
(9) Smith 3430907	430.95	431.9	0.95	1.84	-130.95	1987
(10) La Salle 7738103	460.63	448.89	-11.74	2.03	-207.56	2003
(11) Harris 6514409	194.43	195.62	1.19	-5.61	-58.93*	1947**
(12) Victoria 8017502	32.14	33.16	1.02	2.99	1.86	1958
(13) El Paso 4913301	295.49	295.47	-0.02	1.08	-63.59	1964
(14) Reeves 4644501	161.78	157.45	<i>-4.33</i>	-5.57	-69.69	1952
(15) Pecos 5216802	183.50	184.49	0.99	2.63	63.38	1976
(16) Haskell 2135748	46.21	46.26	0.05	0.49	-3.21	2002
(17) Hudspeth 4807516	133.10	134.31	1.21	1.67	-29.18	1966

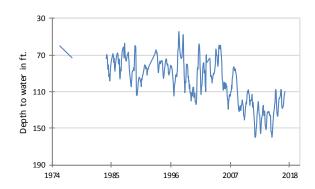
<sup>\*</sup>Change since the original measurement of 135.5 feet below land surface in 1947 (\*\*measurement not shown on the hydrograph)



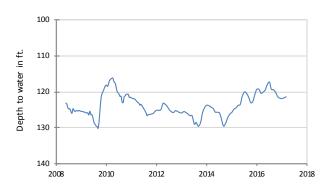
(5) State Well ID 40-35-404 Gatesville, Coryell County Hosston Formation-Trinity Aquifer



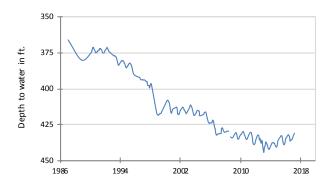
(6) State Well ID 68-02-609 Waring, Kendall County Cow Creek Formation-Trinity Aquifer



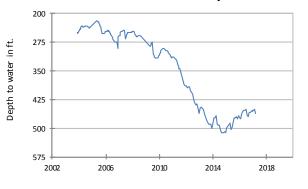
(7) State Well ID 58-04-816 Near Salado, Bell County Edwards (Balcones Fault Zone) Aquifer



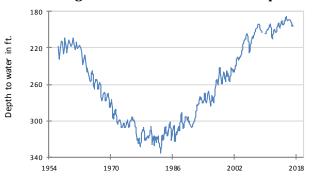
(9) State Well ID 34-30-907 Red Springs, Smith County Carrizo-Wilcox Aquifer



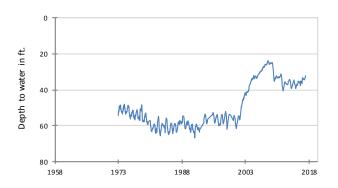
(10) State Well ID 77-38-103 Near Cotulla, La Salle County Carrizo-Wilcox Aquifer



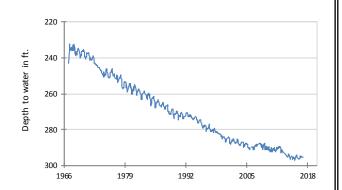
(11) State Well ID 65-14-409 Alief, Harris County Evangeline Formation-Gulf Coast Aquifer



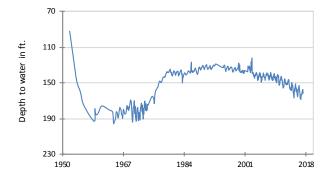
(12) State Well ID 80-17-502 Near Bloomington, Victoria County Lissie Formation-Gulf Coast Aquifer



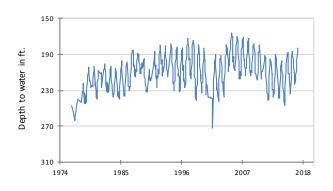
(13) State Well ID 49-13-301 El Paso, El Paso County Hueco-Mesilla Bolson Aquifer



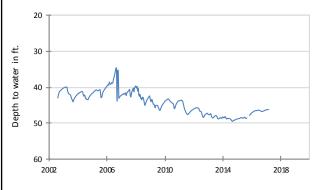
(14) State Well ID 46-44-501 Near Pecos, Reeves County Pecos Valley Aquifer



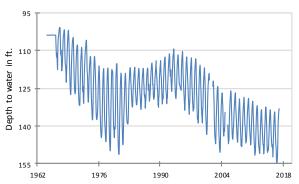
(15) State Well ID 52-16-802 Fort Stockton, Pecos County Edwards-Trinity (Plateau) Aquifer



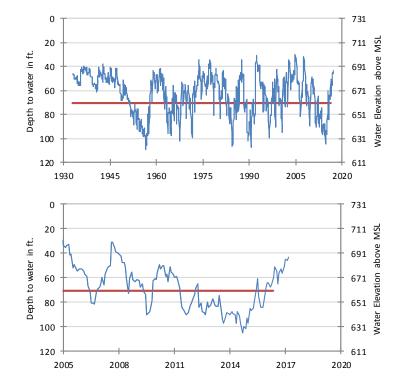
(16) State Well ID 21-35-748 Near O'Brien, Haskell County Seymour Aquifer



(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 (Balcones Fault Zone) Aquifer



The late February water-level measurement in this Edwards (Balcones Fault Zone) Aquifer well, elevation 731 feet above mean sea level, was 43.61 feet below land surface, or 687.39 feet above mean sea level. This was 2.10 feet above last month's measurement, 23.70 feet above last year's measurement, and 3.03 feet above the initial measurement recorded in 1932.

\*\*\* Water levels below the red line indicate periods in which Edwards Aquifer Authority Stage I drought restrictions are in effect. \*\*\*

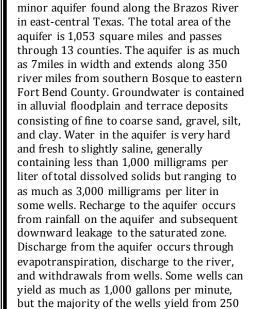


# HYDROGRAPH OF THE MONTH

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

# **Brazos River Alluvium Aquifer**

Well #3949301, 48 feet deep Irrigation well, Central Falls County

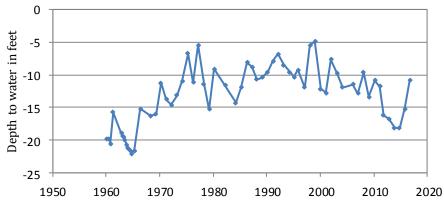


to 500 gallons per minute. No significant

water level declines have occurred in the

aguifer.

The Brazos River Alluvium Aquifer is a



The first recorded water-level measurement for this irrigation well was 19.78 feet below land surface in 1960. The TWDB began measuring this well in 1964, with a measurement of 22.07 feet below land surface, and has measured every year since. The water-level has remained relatively constant with minor fluctuations due to seasonal weather patterns. The highest recorded water-level was 4.95 feet below land surface in 1999, and the lowest recorded water-level was 22.07 feet below land surface in 1964.