

Texas Water Development Board



W **A** **T** **E** **R**
Conditions

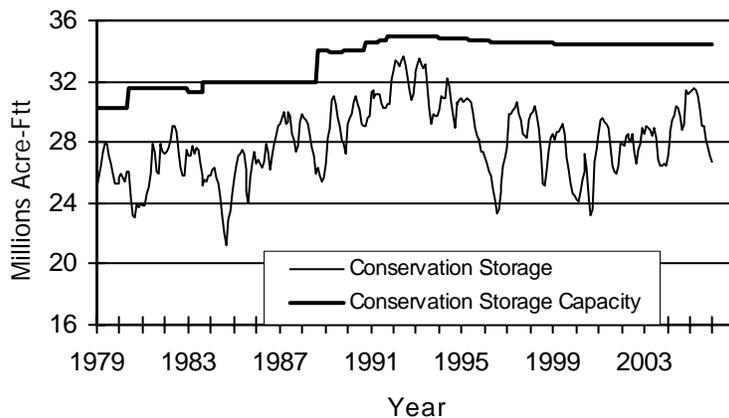
RESERVOIR STORAGE

January 2006

Near the end of January, the 77 reservoirs monitored for this report held 26.69 million acre-feet in conservation storage, or 77 percent of the conservation storage capacity of the state's major reservoirs. Statewide total storage is below median for this time of year. Storage decreased during the month by 0.07 million acre-feet (-0.2% of conservation storage capacity). Compared to last year, storage decreased by 4.58 million acre-feet (-13%).

Storage was near capacity in the Upper Coast Region (92%), but lower than one-third of capacity in the High Plains Region (25%). Storage was at 100% in 3 reservoirs, and the Texas share of Amistad remained above its capacity, at 130%. Compared to this time last year, the storage increased in three regions with the greatest increase in the Trans-Pecos Region (+3%), and the decreased in six regions with the sharpest decreases in the South Central Region (-20%).

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS



Current data are based on elevation near end of month at 77 reservoirs that represent 98 percent of total conservation storage capacity in Texas reservoirs having a capacity of 5,000 acre-feet or more.

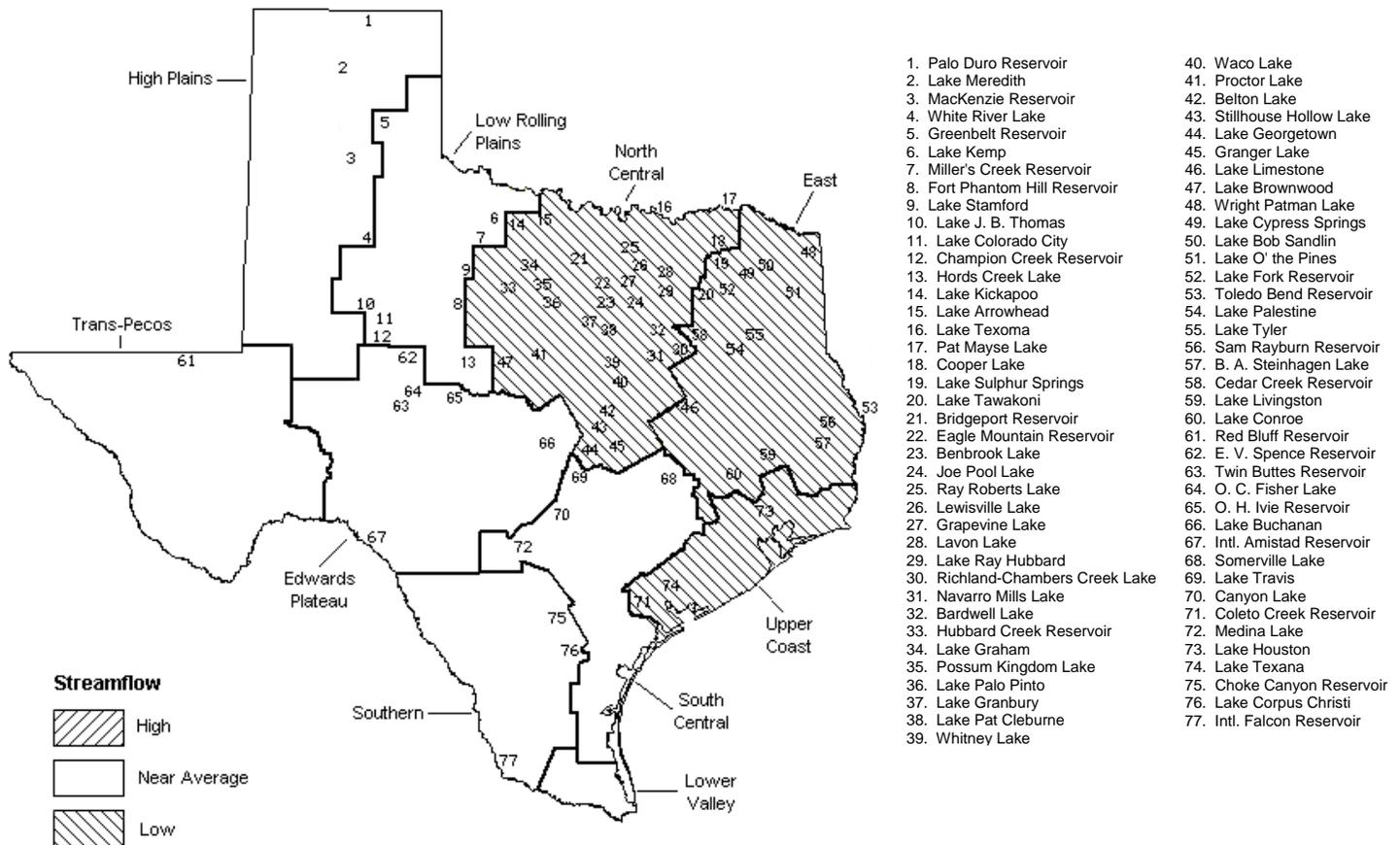
STREAMFLOW

Of 29 reporting index stations in January, computed 30-day mean flows were high (5% - 30%) at 2 stations, low (70% - 95%) at 12 stations, and near normal (30% - 70% exceedance) at the remaining 15 stations. Compared to December, flows have increased at 14 index stations and decreased at 15 stations.

On a regional basis, flows in January were low in North Central, East Texas, and Upper Coast Regions, and normal everywhere else. Streamflow in the Lower Valley Region is not monitored.

JANUARY STREAMFLOW CONDITIONS

Reservoirs Shown on Map



CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation	Conservation	Change since		Change since		
		Storage Capacity (acre-feet)	Storage Late Jan. 2006 (acre-feet) (%)	Late December 2005 (acre-feet) (%)	Late January 2005 (acre-feet) (%)			
HIGH PLAINS								
Palo Duro Reservoir	1	60,900	1,830	3	-90	0	-2,820	-5
Lake Meredith (Texas)	2	500,000	142,970	29	-3,530	-1	-29,310	-6
Lake Meredith (Texas and Oklahoma)	(2)	779,560	142,970	18	-3,530	0	-29,310	-4
MacKenzie Reservoir	3	46,250	9,620	21	-130	0	-410	-1
White River Lake	4	31,850	5,890	18	-240	-1	-4,110	-13
TOTAL		639,000	160,310	25	-3,990	-1	-36,650	-6
LOW ROLLING PLAINS								
Greenbelt Reservoir	5	58,200	21,490	37	-150	0	-1,610	-3
Lake Kemp	6	319,600	272,800	85	-5,920	-2	23,650	7
Miller's Creek Reservoir	7	27,890	25,960	93	-500	-2	4,870	17
Fort Phantom Hill Reservoir	8	70,030	45,220	65	-2,100	-3	-20,640	-29
Lake Stamford	9	52,700	48,850	93	-1,240	-2	13,250	25
Lake J. B. Thomas	10	202,300	57,210	28	-1,930	-1	-4,590	-2
Lake Colorado City	11	30,800	27,910	91	-330	-1	-2,890	-9
Champion Creek Reservoir	12	41,600	5,800	14	-10	0	760	2
Hords Creek Lake	13	8,600	6,580	77	-160	-2	-1,350	-16
TOTAL		811,720	511,820	63	-12,340	-2	11,450	1
NORTH CENTRAL								
Lake Kickapoo	14	106,000	91,610	86	-2,170	-2	19,150	18
Lake Arrowhead	15	262,100	223,140	85	-3,230	-1	27,200	10
Lake Texoma	16	2,722,300	2,375,600	87	-26,540	-1	-180,650	-7
Pat Mayse Lake	17	124,500	92,470	74	-1,110	-1	-32,030	-26
Cooper Lake	18	273,000	130,310	48	-11,260	-4	-138,150	-51
Lake Sulphur Springs	19	17,710	11,910	67	300	2	-5,800	-33
Lake Tawakoni	20	936,200	605,700	65	-14,300	-2	-292,200	-31
Bridgeport Reservoir	21	374,830	246,200	66	-8,900	-2	-105,700	-28
Eagle Mountain Reservoir	22	178,380	140,500	79	3,300	2	-35,500	-20
Benbrook Lake	23	88,200	45,600	52	1,310	1	-38,710	-44
Joe Pool Lake	24	175,800	151,270	86	410	0	-24,530	-14
Ray Roberts Lake	25	798,760	698,900	87	-3,140	0	-99,860	-13
Lewisville Lake	26	555,000	447,990	81	-3,430	-1	-107,010	-19
Grapevine Lake	27	187,700	134,970	72	-1,290	-1	-52,600	-28
Lavon Lake	28	443,800	272,480	61	-4,380	-1	-171,320	-39
Lake Ray Hubbard	29	413,420	335,200	81	4,400	1	-78,220	-19
Richland-Chambers Creek Lake	30	1,103,820	923,000	84	-13,100	-1	-180,820	-16
Navarro Mills Lake	31	55,810	38,850	70	-570	-1	-16,960	-30
Bardwell Lake	32	53,580	35,450	66	480	1	-15,440	-29
Hubbard Creek Reservoir	33	317,800	182,620	57	-2,080	-1	-3,370	-1
Lake Graham	34	45,000	42,270	94	-570	-1	760	2
Possum Kingdom Lake	35	551,820	493,250	89	-4,380	-1	-40,650	-7
Lake Palo Pinto	36	27,650	14,040	51	-850	-3	-11,910	-43
Lake Granbury	37	135,680	131,930	97	-710	-1	-1,270	-1
Lake Pat Cleburne	38	25,300	18,800	74	-90	0	-6,500	-26
Whitney Lake	39	622,800	498,240	80	-10,810	-2	-111,900	-18
Waco Lake	40	144,500	144,500	100	0	0	0	0
Proctor Lake	41	55,590	34,400	62	-1,300	-2	-21,190	-38
Belton Lake	42	434,500	399,290	92	-5,740	-1	-35,210	-8
Stillhouse Hollow Lake	43	226,060	221,500	98	60	0	-4,560	-2
Lake Georgetown	44	37,010	21,830	59	-1,790	-5	-15,180	-41
Granger Lake	45	54,280	54,280	100	0	0	0	0
Lake Limestone	46	215,750	168,550	78	-560	0	-47,200	-22
Lake Brownwood	47	143,400	118,810	83	-1,480	-1	-13,660	-10
TOTAL		11,908,050	9,545,460	80	-113,520	-1	-1,840,990	-15

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

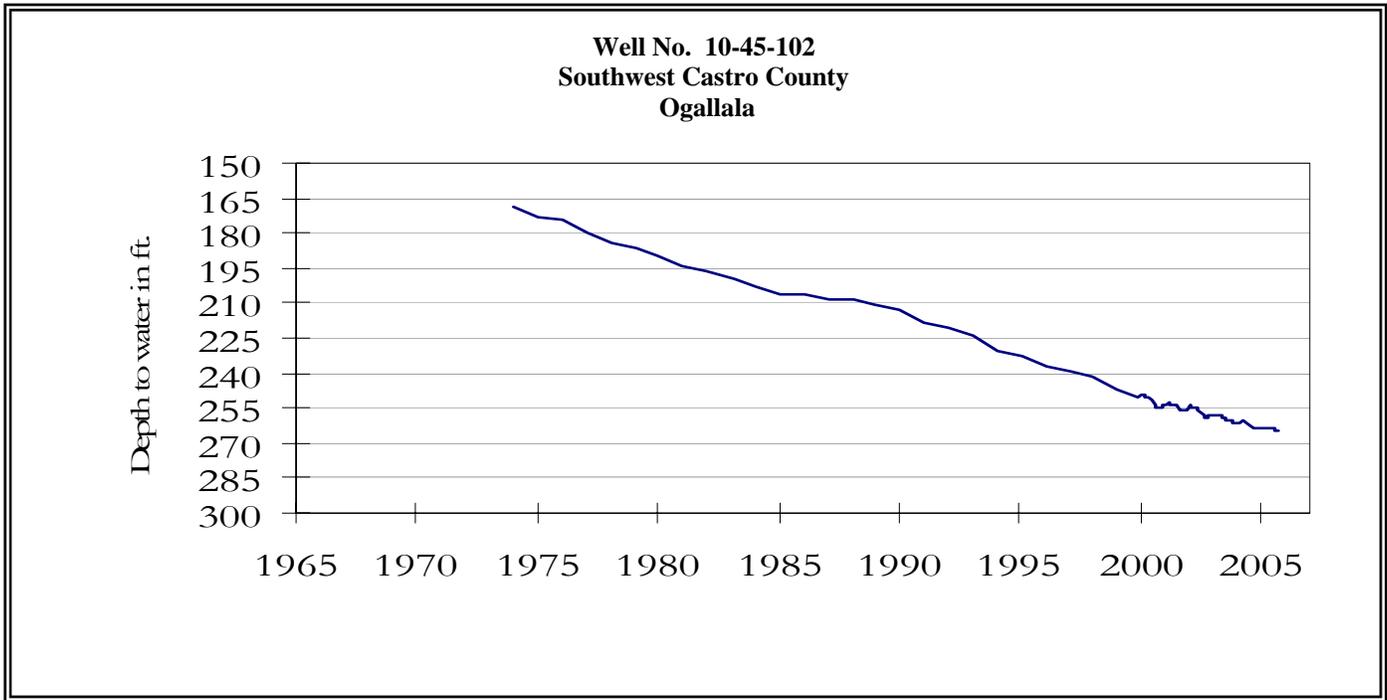
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage		Change since Late December 2005		Change since Late January 2005		
			Late Jan. 2006 (acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)	(%)	
EAST									
Wright Patman Lake	48	142,700	135,300	95	-7,400	-5	-7,400	-5	
Lake Cypress Springs	49	66,800	56,250	84	-1,050	-2	-10,550	-16	
Lake Bob Sandlin	50	202,300	155,600	77	-1,300	-1	-43,800	-22	
Lake O' the Pines	51	252,000	179,130	71	2,050	1	-66,380	-26	
Lake Fork Reservoir	52	635,200	569,100	90	1,900	0	-66,100	-10	
Toledo Bend Reservoir	53	4,472,900	3,093,000	69	73,000	2	-863,000	-19	
Lake Palestine	54	411,300	333,060	81	-2,890	-1	-78,240	-19	
Lake Tyler	55	73,700	60,430	82	1,080	1	-13,270	-18	
Sam Rayburn Reservoir	56	2,876,300	2,418,480	84	61,740	2	-457,820	-16	
B. A. Steinhagen Lake	57	94,200	49,350	52	-3,330	-4	-36,990	-39	
Cedar Creek Reservoir	58	637,050	499,900	78	-6,500	-1	-137,150	-22	
Lake Livingston	59	1,750,000	1,424,000	81	18,000	1	-326,000	-19	
Lake Conroe	60	429,900	349,300	81	10,400	2	-71,200	-17	
TOTAL		12,044,350	9,322,900	77	145,700	1	-2,177,900	-18	
TRANS-PECOS									
Red Bluff Reservoir	61	307,000	129,750	42	1,270	0	10,520	3	
TOTAL		307,000	129,750	42	1,270	0	10,520	3	
EDWARDS PLATEAU									
E. V. Spence Reservoir	62	488,760	91,870	19	-2,840	-1	13,510	3	
Twin Buttes Reservoir	63	177,800	50,010	28	1,280	1	19,030	11	
O.C. Fisher Lake	64	119,200	13,460	11	-390	0	6,260	5	
O. H. Ivie Reservoir	65	554,340	287,800	52	-1,600	0	51,600	9	
Lake Buchanan	66	896,980	762,350	85	-4,100	0	-134,630	-15	
Amistad Reservoir (Texas)	67	1,771,030	2,294,000	130	-17,000	-1	-140,000	-8	
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	2,755,000	87	-8,000	0	-220,000	-7	
TOTAL		4,008,110	3,499,490	87	-24,650	-1	-184,230	-5	
SOUTH CENTRAL									
Somerville Lake	68	155,060	122,900	79	1,270	1	-32,160	-21	
Lake Travis	69	1,144,100	883,200	77	1,500	0	-260,900	-23	
Canyon Lake	70	385,600	358,460	93	-2,310	-1	-22,780	-6	
Coletto Creek Reservoir	71	35,060	25,290	72	-410	-1	-7,070	-20	
Medina Lake	72	254,000	191,300	75	-5,800	-2	-62,700	-25	
TOTAL		1,973,820	1,581,150	80	-5,750	0	-385,610	-20	
UPPER COAST									
Lake Houston	73	128,860	128,860	100	0	0	0	0	
Lake Texana	74	157,900	134,810	85	-8,620	-5	-23,090	-15	
TOTAL		286,760	263,670	92	-8,620	-3	-23,090	-8	
Choke Canyon Reservoir	75	695,260	612,000	88	-5,000	-1	-81,000	-12	
Lake Corpus Christi	76	241,240	135,700	56	-6,800	-3	-105,540	-44	
Falcon Reservoir (Texas)	77	1,555,120	932,000	60	-40,000	-3	231,000	15	
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	1,571,000	59	-50,000	-2	-125,000	-5	
TOTAL		2,491,620	1,679,700	67	-51,800	-2	44,460	2	
STATE TOTAL		34,470,430	26,694,250	77	-73,700	-0.2%	-4,582,040	-13	

Note:

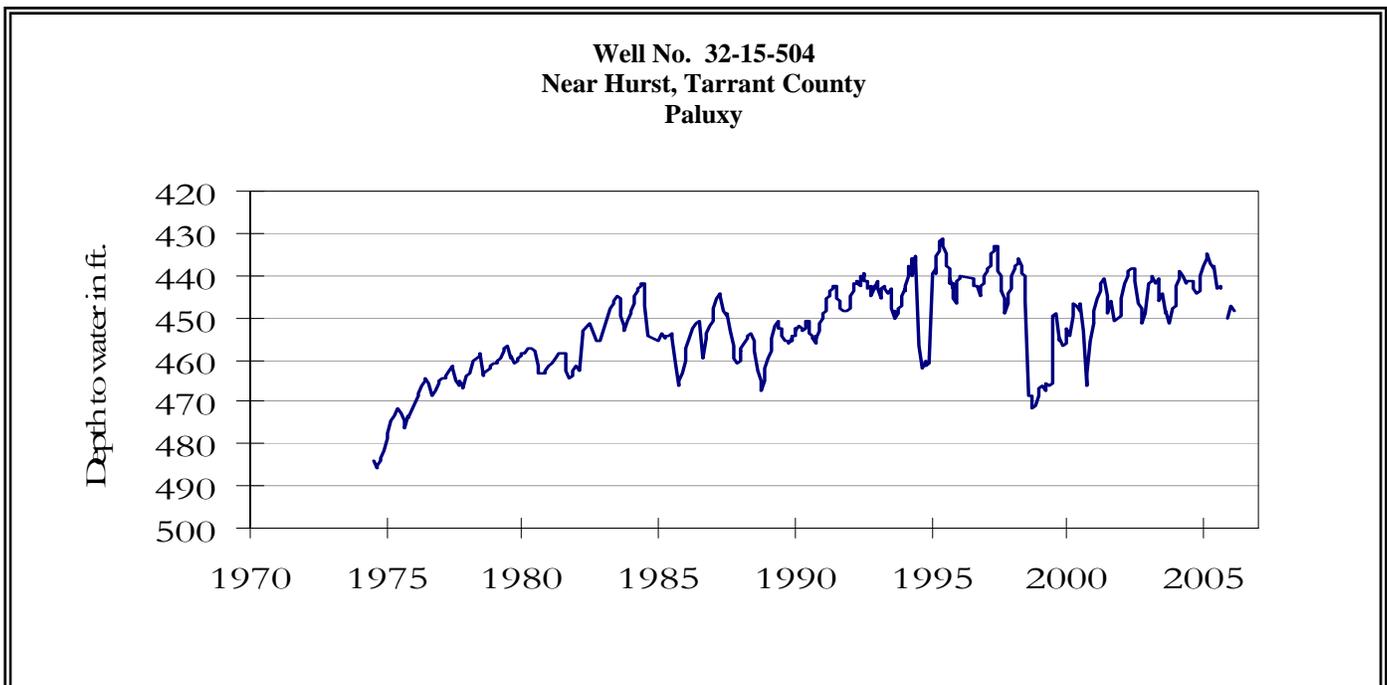
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included is any water in flood control storage (above the top of conservation pool or normal maximum operating level), or any water in so called dead storage (in the bottom of the reservoir, below the invert of lowest outlet works and consequently not removable by gravity flow alone.) Percentage of conservation storage is based on the conservation storage capacity of the reservoir and the conservation storage in the reservoir for date shown. Percent change is given by $\% \text{ Change} = 100 * (\text{current conservation storage} - \text{past conservation storage}) / \text{conservation storage capacity}$.

Current data are based on elevations near end of month at 77 reservoirs that together represent 98 percent of the total conservation storage capacity of major Texas reservoirs (those with capacity of 5,000 acre-feet or more each). Preliminary figures are shown for the Texas' share of conservation storage in all reservoirs.

JANUARY GROUND WATER LEVELS IN OBSERVATION WELLS

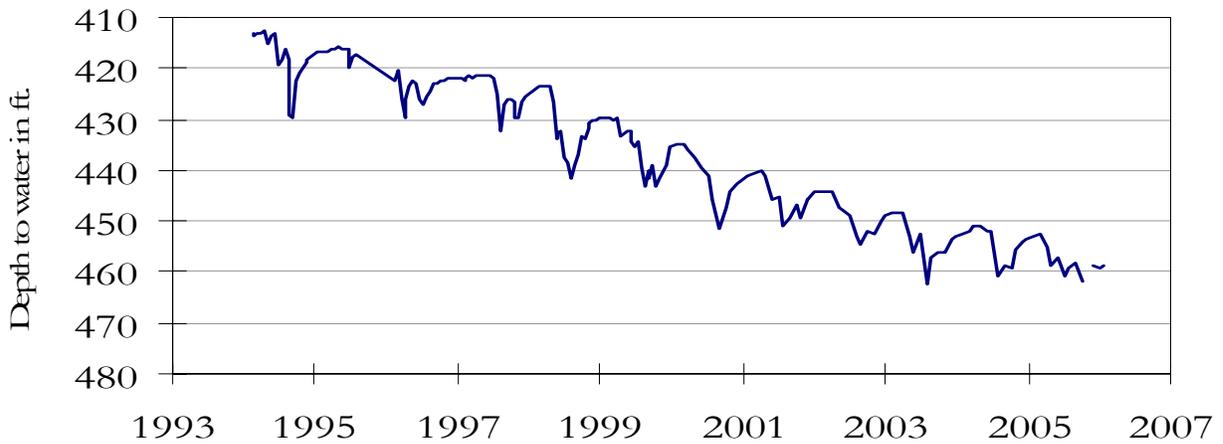


The late January water-level measurement in this Ogallala aquifer well, elevation 3,816 feet above sea level, was 265.15 feet below land surface. This measurement was 0.34 feet below August's measurement, 1.55 feet below last year's measurement, and 109.15 feet below the initial measurement recorded in 1968. No water level measurements were recorded for September through December 2005.



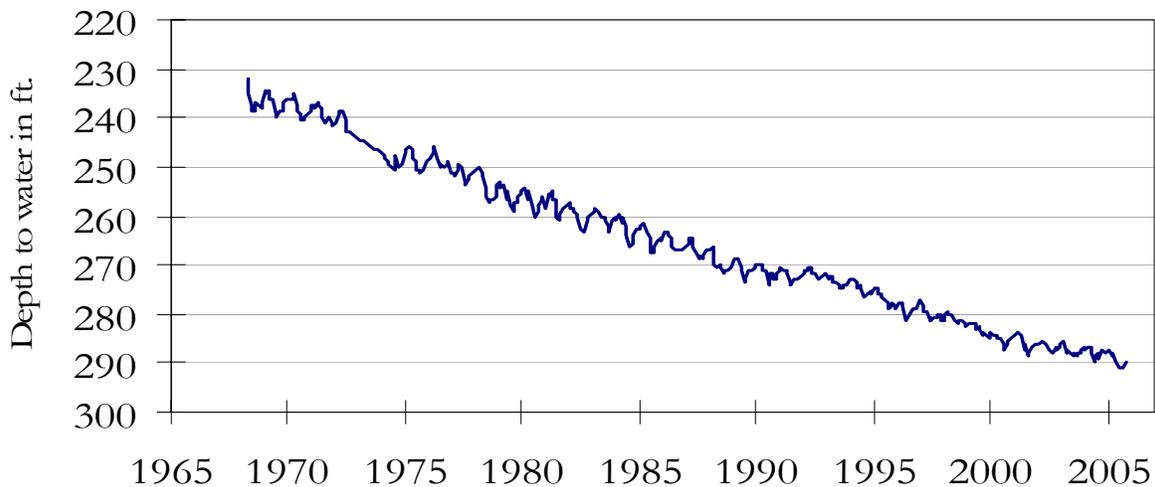
The late January water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 448.42 feet below land surface. This measurement was 1.18 feet below last month's measurement, 12.42 feet below last year's measurement, and 70.42 feet below the initial measurement recorded in 1953. No water level measurements were recorded for September or October 2005.

**Well No. 40-35-404
Gatesville, Coryell County
Hosston/Trinity**



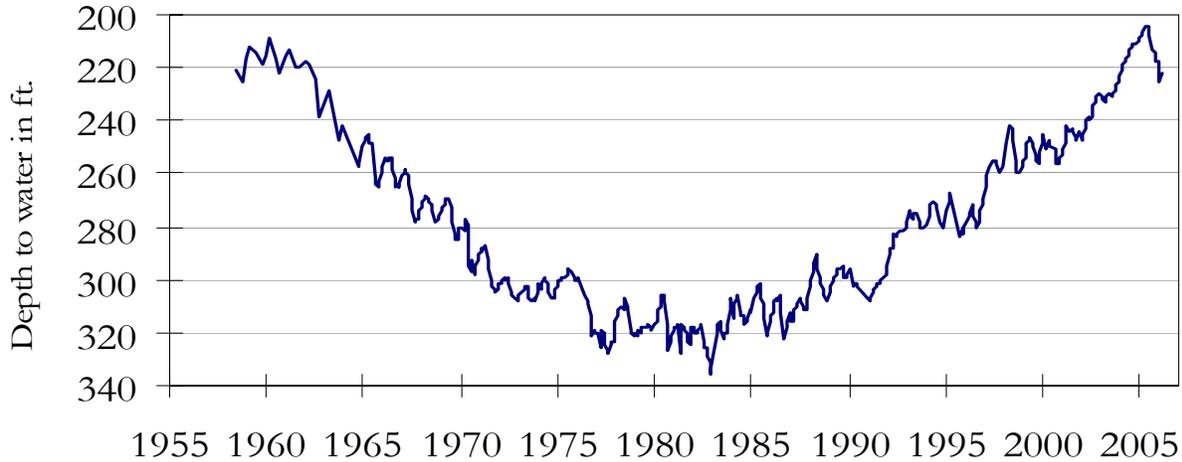
The late January water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 458.98 feet below land surface. This water level was 0.03 feet above last month's measurement, 5.88 feet below last year's measurement, and 166.98 feet below the initial measurement recorded in 1955. No water level measurement was recorded for October 2005.

**Well No. 49-13-301
El Paso, El Paso County
Bolson Deposits**



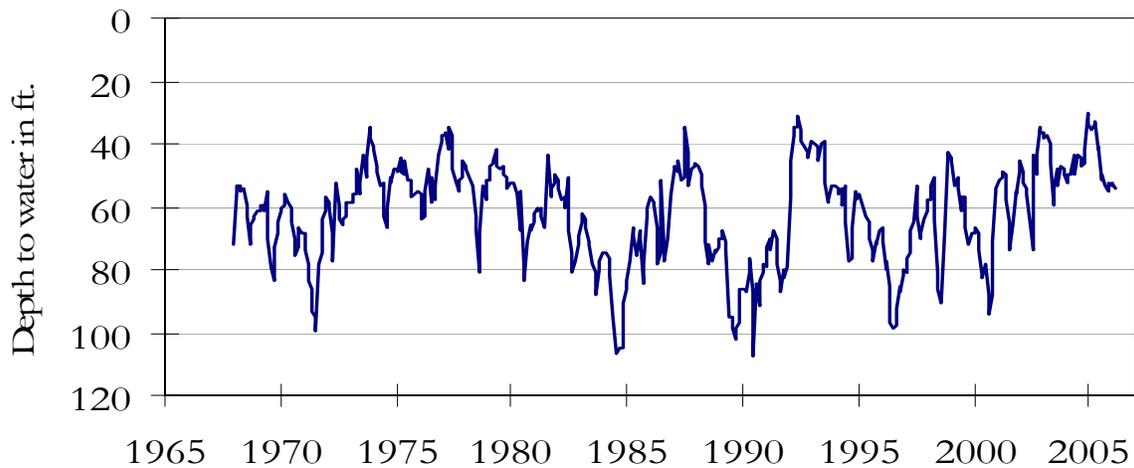
The late January water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 289.98 feet below land surface. This was 0.15 feet below November's measurement, 2.38 feet below last year's measurement, and 58.08 feet below the initial measurement in 1964. No water level measurements were recorded for October or December 2005.

**Well No. 65-14-409
Alief, Harris County
Evangeline**



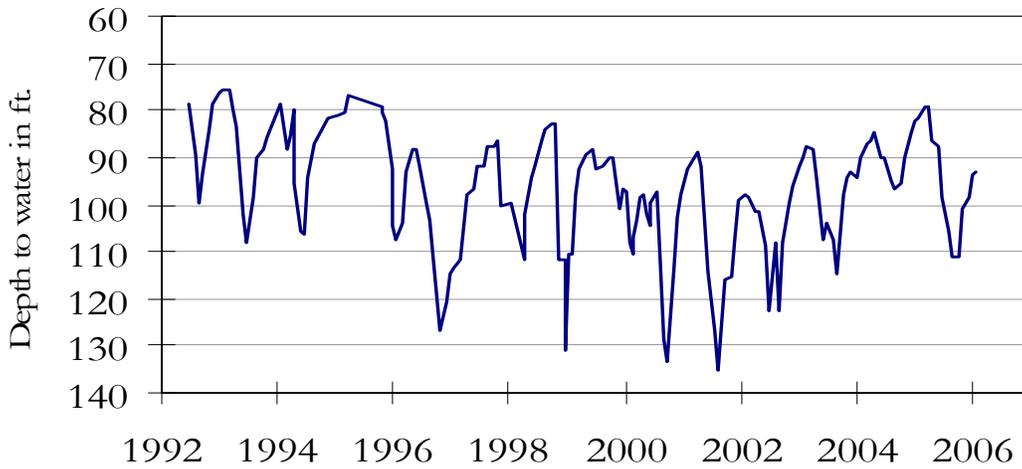
The late January water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 222.45 feet below land surface. This was 3.11 feet above last month's measurement, 14.95 feet below last year's measurement, and 86.95 feet below the initial measurement recorded in 1947.

**Well No. 68-37-203 (J-17)
In San Antonio, Bexar County
Edwards and Associated Limestones**



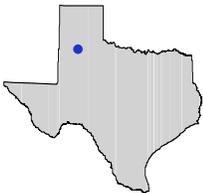
The late January water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 54.47 feet below land surface. This was 1.89 feet below last month's measurement, 19.07 feet below last year's measurement, and 7.83 feet below the initial measurement recorded in 1962.

**Well No. 68-60-912
Between Poteet and Pleasanton, Atascosa County
Carrizo**



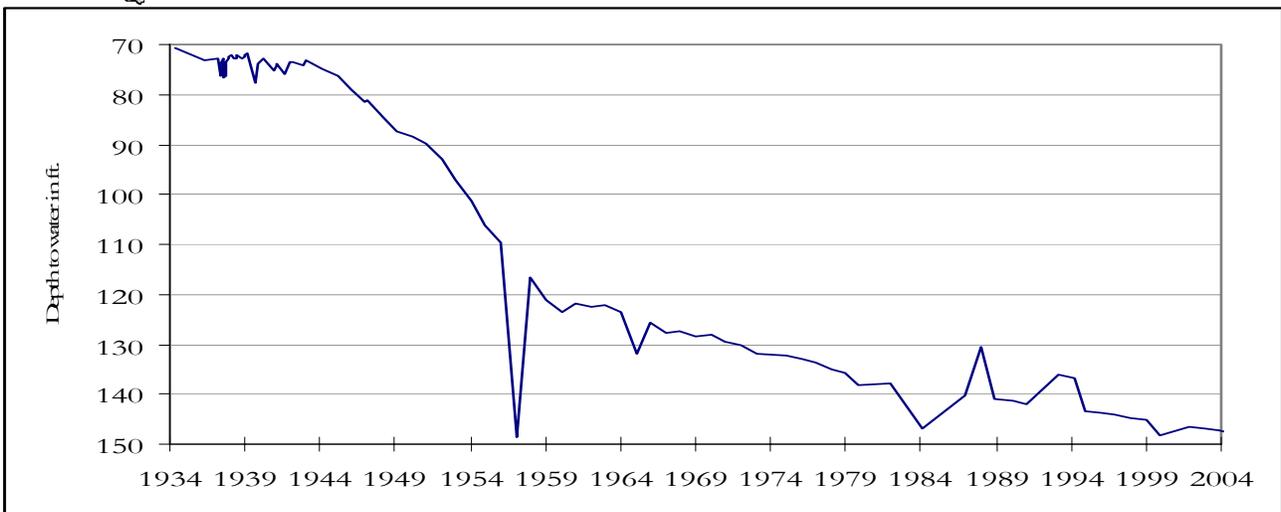
The late January water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 92.99 feet below land surface. This measurement was 0.89 feet above last month's measurement, 11.34 feet below last year's measurement, and 57.63 feet below the initial measurement recorded in 1965.

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.

**Well No. 11-43-501
Swisher County**



This water level observation well, located 10 miles south of Tulia, at an elevation of 3,424 feet ASL, was completed in the Ogallala aquifer. Since the expansion of irrigated agriculture in the 1940s, greater amounts of water have been pumped from the aquifer than have been recharged. As a result, heavily irrigated areas have experienced water-level declines, some in excess of 100 feet.

January, 2006

Water levels declined in four of the seven key monitoring wells since the beginning of January, ranging from 0.15 feet in the El Paso Co. (Bolson Deposits) well to 1.89 feet in the Bexar Co. J-17 well. Water levels rose in the remaining three monitoring wells, ranging from 0.03 feet in the Coryell Co. Hosston/Trinity well to 3.11 feet in the Harris Co. Evangeline well. The J-17 well recorded a water level of 54.47 feet below land surface. This water level is approximately twenty-six (26) feet above the Stage 1 critical management level.

TEXAS WATER DEVELOPMENT BOARD

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