

# Texas Water Development Board



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

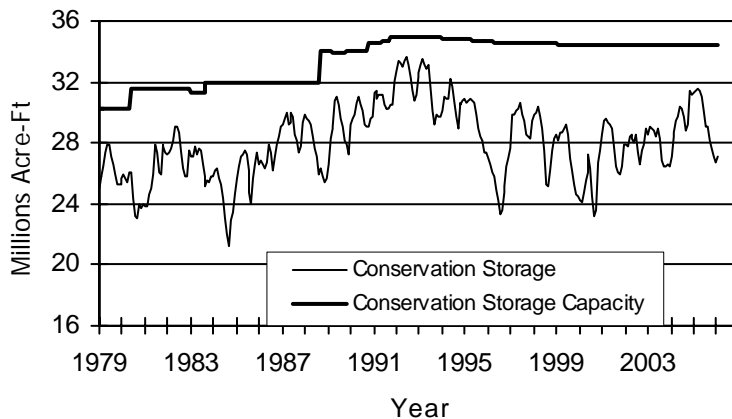
## RESERVOIR STORAGE

*February 2006*

Near the end of February, the 77 reservoirs monitored for this report held 27.10 million acre-feet in conservation storage, or 78.6 percent of the conservation storage capacity of the state's major reservoirs. Statewide total storage is below normal for this time of year. Storage increased during the month by 0.41 million acre-feet (1.2% of conservation storage capacity). Compared to last year, storage decreased by 4.35 million acre-feet (-13%).

Storage was near capacity in the Upper Coast Region (90%), but lower than one-third of capacity in the High Plains Region (24%). Storage was at 100% in 3 reservoirs, and the Texas share of Amistad Reservoir remained above its capacity, at 127%. Compared to this time last year, the storage increased only in Trans-Pecos Region (2%) and decreased in the other eight regions, with the sharpest decrease 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.

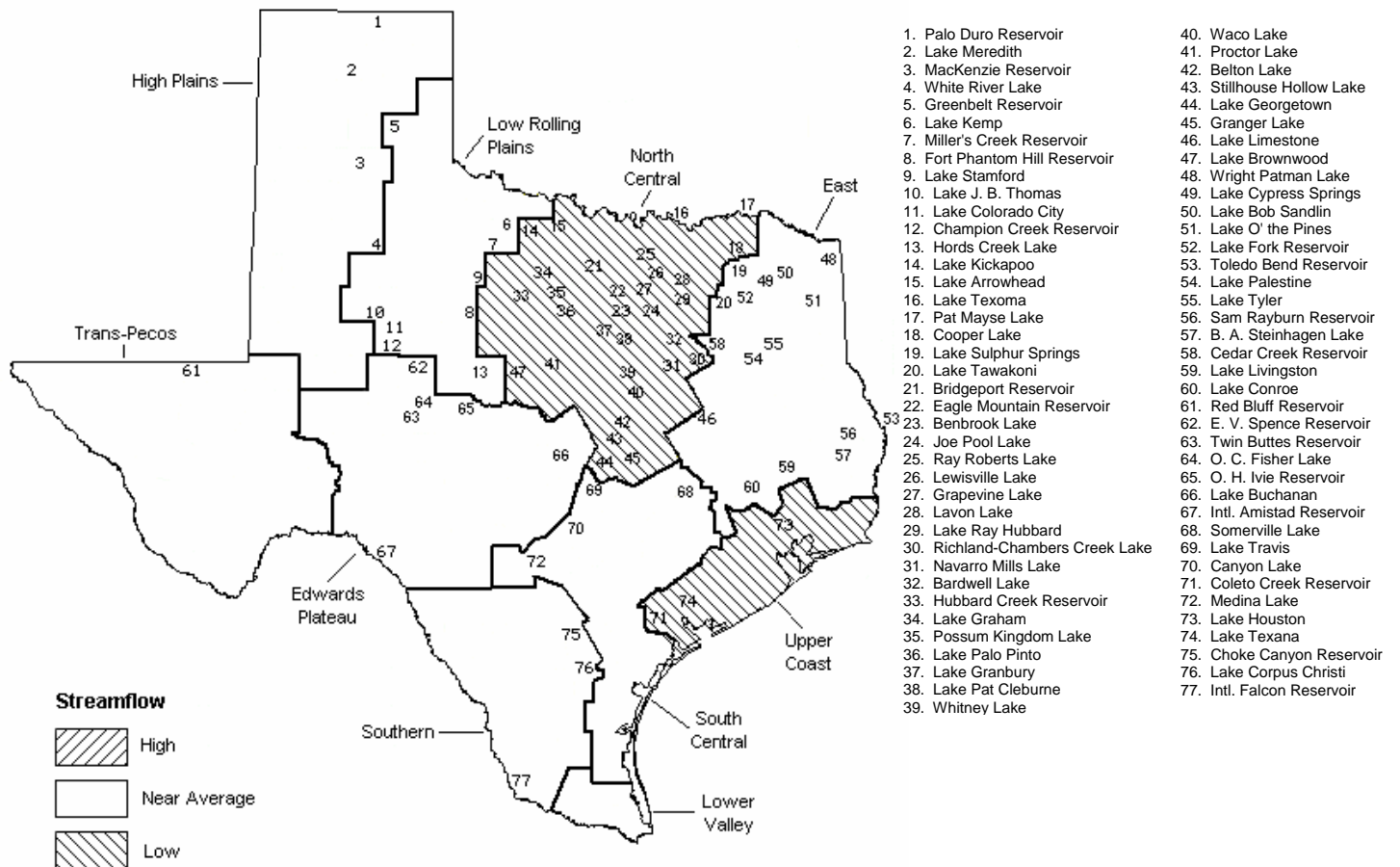
# STREAMFLOW

Of 29 reporting index stations in February, computed 30-day mean flows were high (5% - 30%) at 2 stations, low (70% - 95%) at 8 stations, and near normal (30% - 70% exceedance) at the remaining 19 stations. Compared to January, flows have increased at 19 index stations and decreased at 10 stations.

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

## FEBRUARY STREAMFLOW CONDITIONS

Reservoirs Shown on Map



## CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage		Conservation Storage Late Feb.		Change since Late January		Change since Late February	
		Capacity (acre-feet)		2006 (acre-feet)	(%)	2006 (acre-feet)	(%)	2005 (acre-feet)	(%)
<b>HIGH PLAINS</b>									
Palo Duro Reservoir	1	60,900	1,730	3	-100	0	-2,700	-4	
Lake Meredith (Texas)	2	500,000	139,010	28	-3,960	-1	-36,000	-7	
Lake Meredith (Texas and Oklahoma)	(2)	779,560	139,010	18	-3,960	-1	-36,000	-5	
MacKenzie Reservoir	3	46,250	9,530	21	-90	0	-520	-1	
White River Lake	4	31,850	5,640	18	-250	-1	-4,490	-14	
<b>TOTAL</b>		<b>639,000</b>	<b>155,910</b>	<b>24</b>	<b>-4,400</b>	<b>-1</b>	<b>-43,710</b>	<b>-7</b>	
<b>LOW ROLLING PLAINS</b>									
Greenbelt Reservoir	5	58,200	21,390	37	-100	0	-1,970	-3	
Lake Kemp	6	319,600	265,420	83	-7,380	-2	11,100	3	
Miller's Creek Reservoir	7	27,890	25,570	92	-390	-1	4,210	15	
Fort Phantom Hill Reservoir	8	70,030	44,060	63	-1,160	-2	-22,060	-32	
Lake Stamford	9	52,700	47,910	91	-940	-2	11,710	22	
Lake J. B. Thomas	10	202,300	55,160	27	-2,050	-1	-6,300	-3	
Lake Colorado City	11	30,800	27,610	90	-300	-1	-3,190	-10	
Champion Creek Reservoir	12	41,600	5,820	14	20	0	690	2	
Hords Creek Lake	13	8,600	6,450	75	-130	-2	-1,920	-22	
<b>TOTAL</b>		<b>811,720</b>	<b>499,390</b>	<b>62</b>	<b>-12,430</b>	<b>-2</b>	<b>-7,730</b>	<b>-1</b>	
<b>NORTH CENTRAL</b>									
Lake Kickapoo	14	106,000	90,600	85	-1,010	-1	17,210	16	
Lake Arrowhead	15	262,100	221,070	84	-2,070	-1	22,690	9	
Lake Texoma	16	2,722,300	2,328,750	86	-46,850	-2	-200,730	-7	
Pat Mayse Lake	17	124,500	91,610	74	-860	-1	-32,750	-26	
Cooper Lake	18	273,000	122,210	45	-8,100	-3	-150,790	-55	
Lake Sulphur Springs	19	17,710	13,510	76	1,600	9	-3,980	-22	
Lake Tawakoni	20	936,200	599,300	64	-6,400	-1	-293,600	-31	
Bridgeport Reservoir	21	374,830	241,600	64	-4,600	-1	-111,800	-30	
Eagle Mountain Reservoir	22	178,380	141,400	79	900	1	-36,980	-21	
Benbrook Lake	23	88,200	54,270	62	8,670	10	-32,020	-36	
Joe Pool Lake	24	175,800	154,210	88	2,940	2	-21,590	-12	
Ray Roberts Lake	25	798,760	699,940	88	1,040	0	-98,820	-12	
Lewisville Lake	26	555,000	450,740	81	2,750	0	-104,260	-19	
Grapevine Lake	27	187,700	136,080	72	1,110	1	-47,670	-25	
Lavon Lake	28	443,800	277,350	62	4,870	1	-166,450	-38	
Lake Ray Hubbard	29	413,420	348,700	84	13,500	3	-64,720	-16	
Richland-Chambers Creek Lake	30	1,103,820	911,900	83	-11,100	-1	-191,920	-17	
Navarro Mills Lake	31	55,810	38,450	69	-400	-1	-17,360	-31	
Bardwell Lake	32	53,580	35,730	67	280	1	-13,470	-25	
Hubbard Creek Reservoir	33	317,800	181,680	57	-940	0	-5,390	-2	
Lake Graham	34	45,000	41,750	93	-520	-1	30	0	
Poosum Kingdom Lake	35	551,820	492,930	89	-320	0	-30,770	-6	
Lake Palo Pinto	36	27,650	13,750	50	-290	-1	-13,000	-47	
Lake Granbury	37	135,680	133,470	98	1,540	1	-1,030	-1	
Lake Pat Cleburne	38	25,300	18,700	74	-100	0	-6,600	-26	
Whitney Lake	39	622,800	488,660	78	-9,580	-2	-93,950	-15	
Waco Lake	40	144,500	144,500	100	0	0	0	0	
Proctor Lake	41	55,590	33,710	61	-690	-1	-21,880	-39	
Belton Lake	42	434,500	396,730	91	-2,560	-1	-37,770	-9	
Stillhouse Hollow Lake	43	226,060	221,690	98	190	0	-4,370	-2	
Lake Georgetown	44	37,010	21,460	58	-370	-1	-15,550	-42	
Granger Lake	45	54,280	54,280	100	0	0	0	0	
Lake Limestone	46	215,750	171,170	79	2,620	1	-44,580	-21	
Lake Brownwood	47	143,400	117,820	82	-990	-1	-24,110	-17	
<b>TOTAL</b>		<b>11,908,050</b>	<b>9,489,720</b>	<b>80</b>	<b>-55,740</b>	<b>0</b>	<b>-1,847,980</b>	<b>-16</b>	

## CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late Feb. 2006 (acre-feet) (%)	Change since Late January 2006 (acre-feet) (%)	Change since Late February 2005 (acre-feet) (%)
<b>EAST</b>					
Wright Patman Lake	48	142,700	137,070 96	1,770 1	-5,630 -4
Lake Cypress Springs	49	66,800	58,840 88	2,590 4	-7,960 -12
Lake Bob Sandlin	50	202,300	157,000 78	1,400 1	-45,300 -22
Lake O' the Pines	51	252,000	183,800 73	4,670 2	-63,640 -25
Lake Fork Reservoir	52	635,200	573,300 90	4,200 1	-61,900 -10
Toledo Bend Reservoir	53	4,472,900	3,447,000 77	354,000 8	-644,000 -14
Lake Palestine	54	411,300	350,130 85	17,070 4	-61,170 -15
Lake Tyler	55	73,700	62,140 84	1,710 2	-11,560 -16
Sam Rayburn Reservoir	56	2,876,300	2,626,930 91	208,450 7	-249,370 -9
B. A. Steinhagen Lake	57	94,200	50,010 53	660 1	-26,740 -28
Cedar Creek Reservoir	58	637,050	504,700 79	4,800 1	-132,350 -21
Lake Livingston	59	1,750,000	1,432,000 82	8,000 0	-318,000 -18
Lake Conroe	60	429,900	349,100 81	-200 0	-73,000 -17
TOTAL		12,044,350	9,932,020 82	609,120 5	-1,700,620 -14
<b>TRANS-PECOS</b>					
Red Bluff Reservoir	61	307,000	129,500 42	-250 0	6,290 2
TOTAL		307,000	129,500 42	-250 0	6,290 2
<b>EDWARDS PLATEAU</b>					
E. V. Spence Reservoir	62	488,760	90,260 18	-1,610 0	11,410 2
Twin Buttes Reservoir	63	177,800	51,550 29	1,540 1	16,950 10
O.C. Fisher Lake	64	119,200	13,170 11	-290 0	5,920 5
O. H. Ivie Reservoir	65	554,340	286,300 52	-1,500 0	14,300 3
Lake Buchanan	66	896,980	746,190 83	-16,160 -2	-150,790 -17
Amistad Reservoir (Texas)	67	1,771,030	2,245,000 127	-49,000 -3	-191,000 -11
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	2,713,000 86	-42,000 -1	-282,000 -9
TOTAL		4,008,110	3,432,470 86	-67,020 -2	-293,210 -7
<b>SOUTH CENTRAL</b>					
Somerville Lake	68	155,060	125,270 81	2,370 2	-29,790 -19
Lake Travis	69	1,144,100	883,200 77	0 0	-260,900 -23
Canyon Lake	70	385,600	355,610 92	-2,850 -1	-25,800 -7
Coletto Creek Reservoir	71	35,060	24,670 70	-620 -2	-7,480 -21
Medina Lake	72	254,000	185,000 73	-6,300 -2	-69,000 -27
TOTAL		1,973,820	1,573,750 80	-7,400 0	-392,970 -20
<b>UPPER COAST</b>					
Lake Houston	73	128,860	128,860 100	0 0	0 0
Lake Texana	74	157,900	128,340 81	-6,470 -4	-28,730 -18
TOTAL		286,760	257,200 90	-6,470 -2	-28,730 -10

## CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

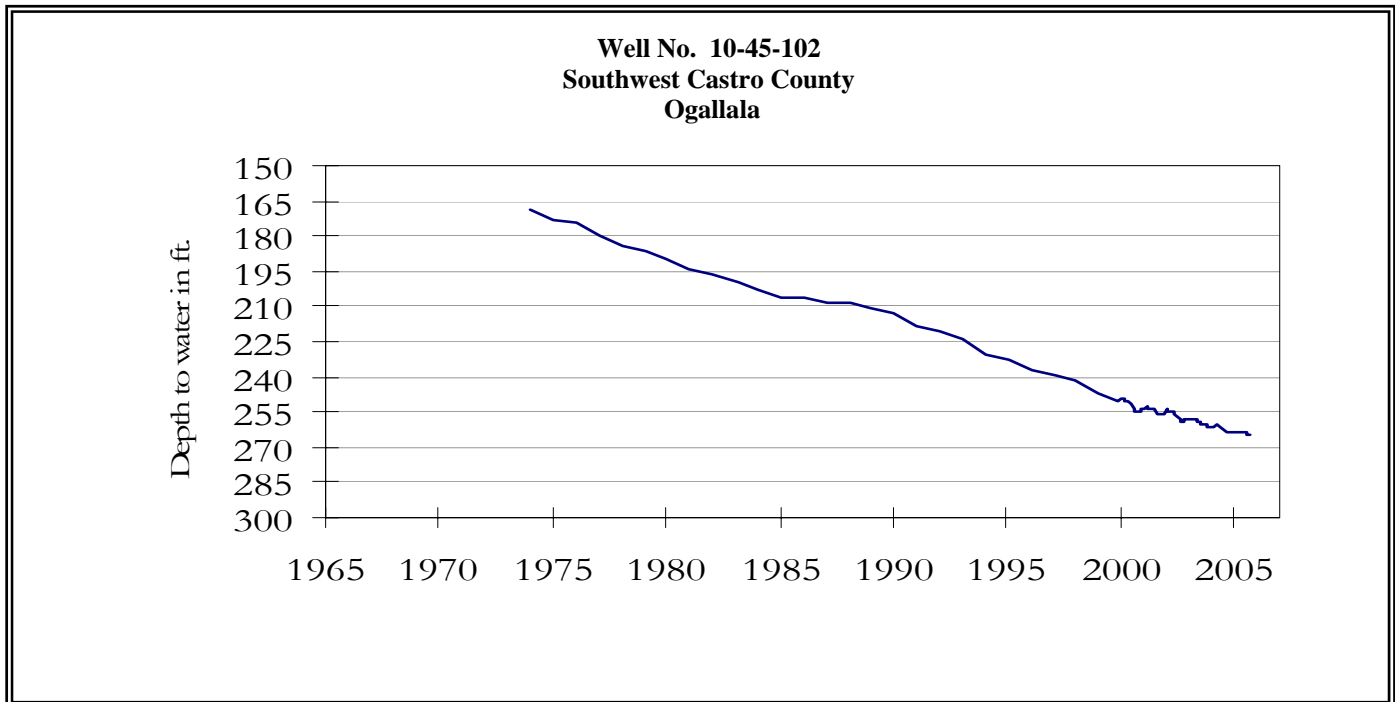
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late Feb. 2006 (acre-feet) (%)		Change since Late January 2006 (acre-feet) (%)		Change since Late February 2005 (acre-feet) (%)	
<b>SOUTHERN</b>								
Choke Canyon Reservoir	75	695,260	606,000	87	-6,000	-1	-89,260	-13
Lake Corpus Christi	76	241,240	127,900	53	-7,800	-3	-113,340	-47
Falcon Reservoir (Texas)	77	1,555,120	899,000	58	-33,000	-2	163,000	10
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	1,544,000	58	-27,000	-1	-204,000	-8
<b>TOTAL</b>		<b>2,491,620</b>	<b>1,632,900</b>	<b>66</b>	<b>-46,800</b>	<b>-2</b>	<b>-39,600</b>	<b>-2</b>
<b>STATE TOTAL</b>		<b>34,470,430</b>	<b>27,102,860</b>	<b>79</b>	<b>408,610</b>	<b>1</b>	<b>-4,348,260</b>	<b>-13</b>

Note:

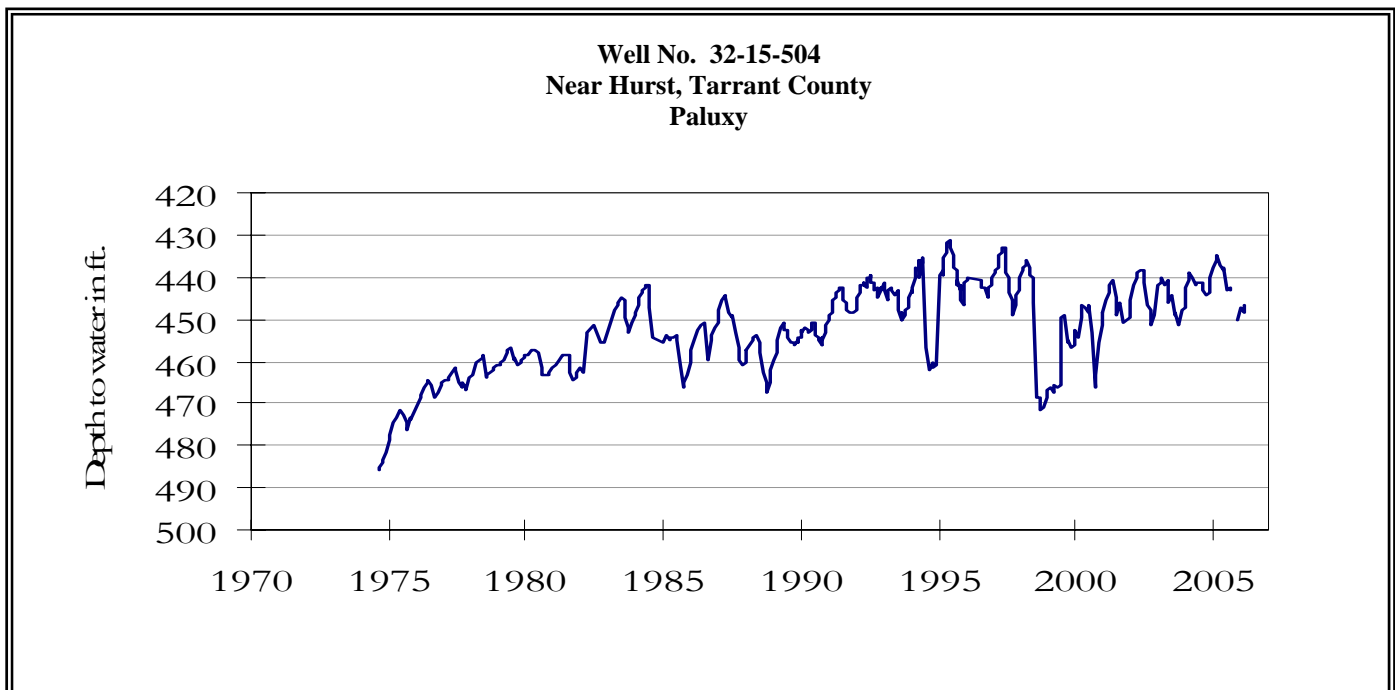
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included 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 % Change = 100 \* (current conservation storage - past conservation storage)/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.

## FEBRUARY GROUND WATER LEVELS IN OBSERVATION WELLS

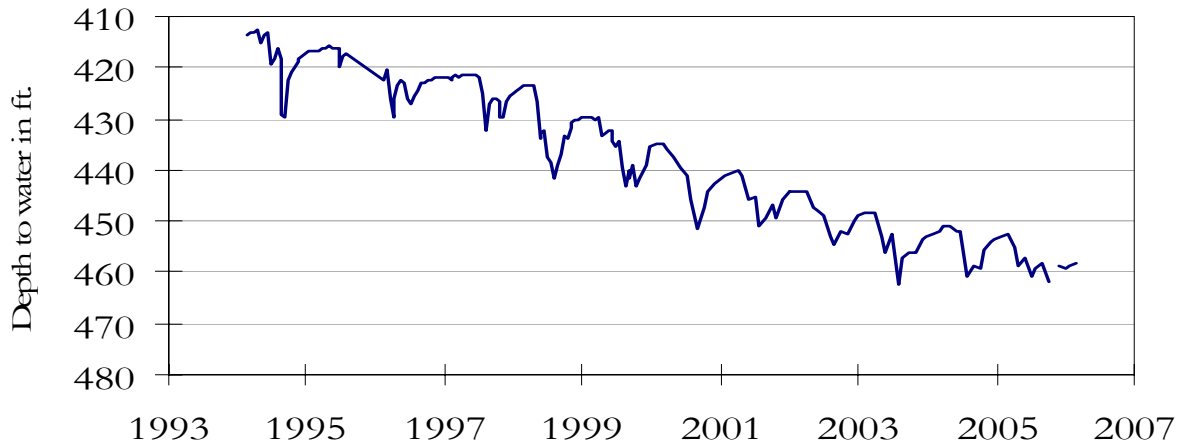


The water-level measurement is not available this month for this Ogallala aquifer well (recorder under repair). The graph presented is from last month's report.



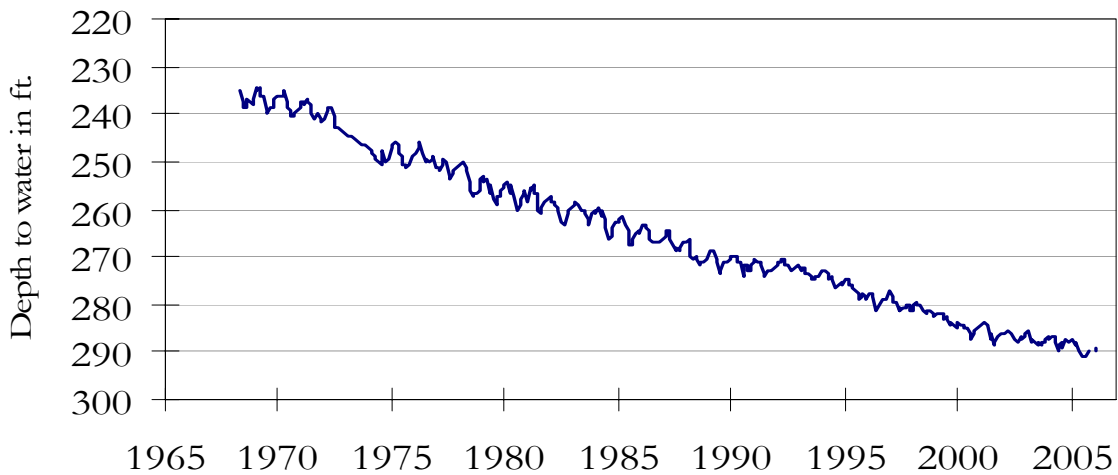
The late February water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 446.90 feet below land surface. This measurement was 1.52 feet above last month's measurement, 11.80 feet below last year's measurement, and 68.90 feet below the initial measurement recorded in 1953. No water level measurements were recorded for September or October 2005.

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



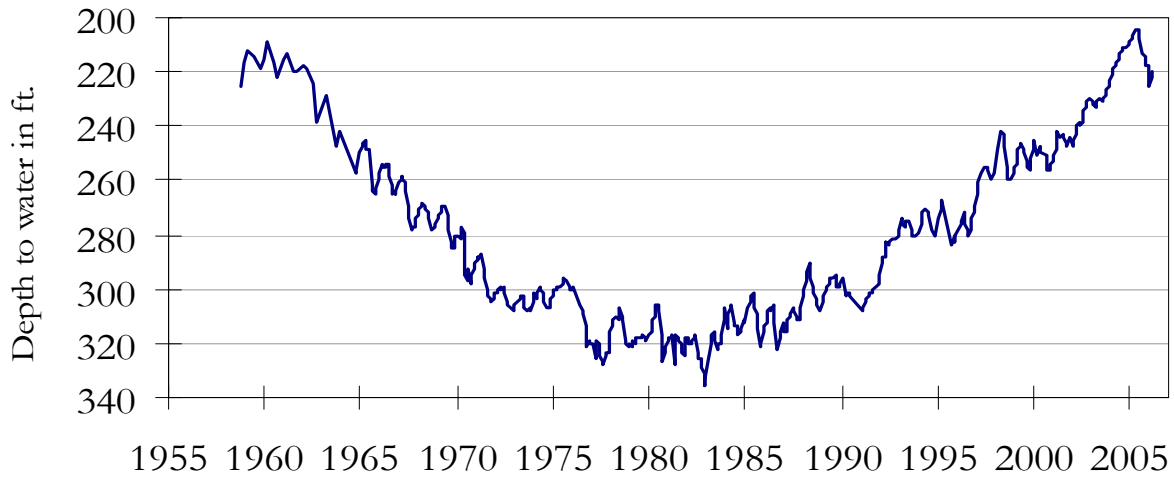
The late February water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 458.31 feet below land surface. This water level was 0.67 feet above last month's measurement, 5.71 feet below last year's measurement, and 166.31 feet below the initial measurement recorded in 1955. No water level measurement was recorded for October 2005.

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



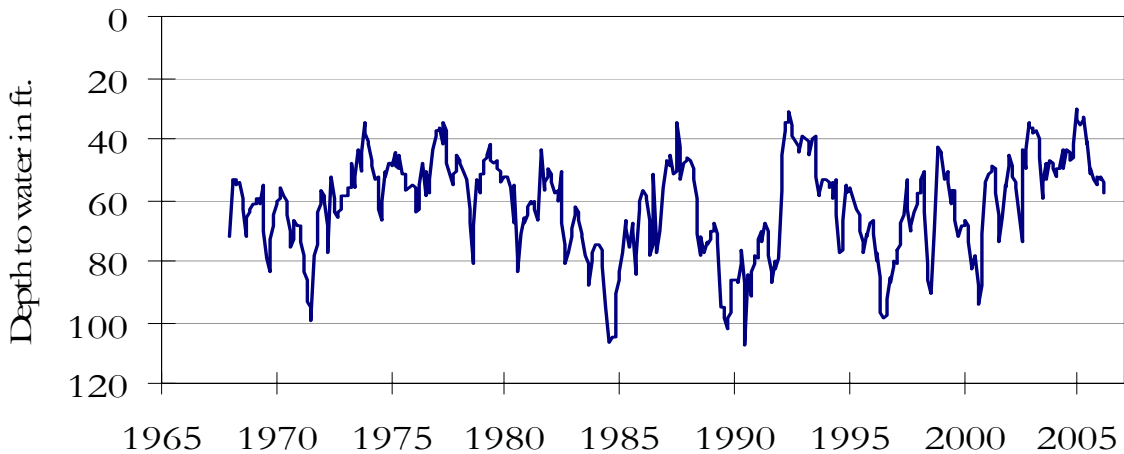
The late February water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 289.40 feet below land surface. This was 0.58 feet above last month's measurement, 1.00 feet below last year's measurement, and 57.50 feet below the initial measurement in 1964. No water level measurements were recorded for October or December 2005.

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



The late February water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 219.31 feet below land surface. This was 3.14 feet above last month's measurement, 13.21 feet below last year's measurement, and 83.81 feet below the initial measurement recorded in 1947.

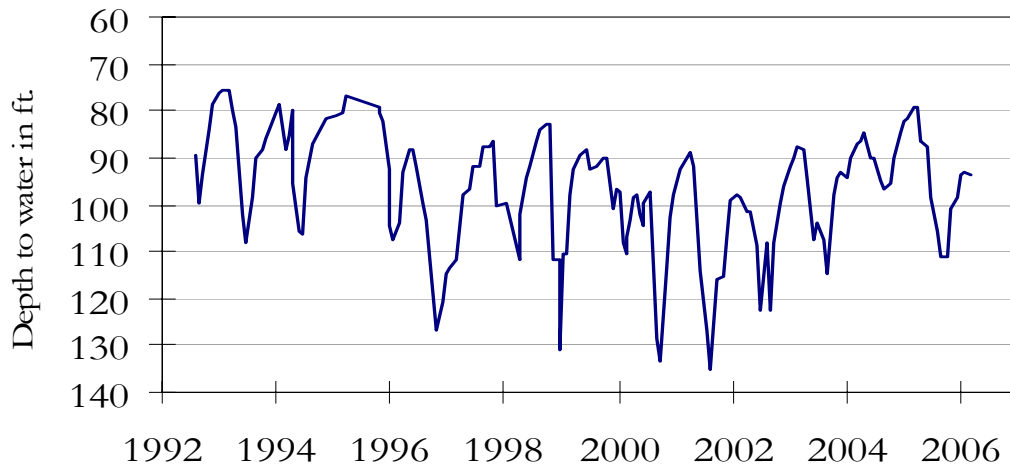
**Well No. 68-37-203 (J-17)  
In San Antonio, Bexar County  
Edwards and Associated Limestones**



The late February water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 57.52 feet below land surface. This was 3.05 feet below last month's measurement, 23.42 feet below last year's measurement, and 10.88 feet below the initial measurement recorded in 1962.

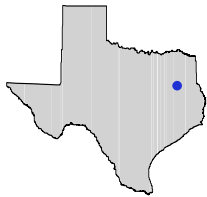


**Well No. 68-60-912  
Between Poteet and Pleasanton, Atascosa County  
Carrizo**



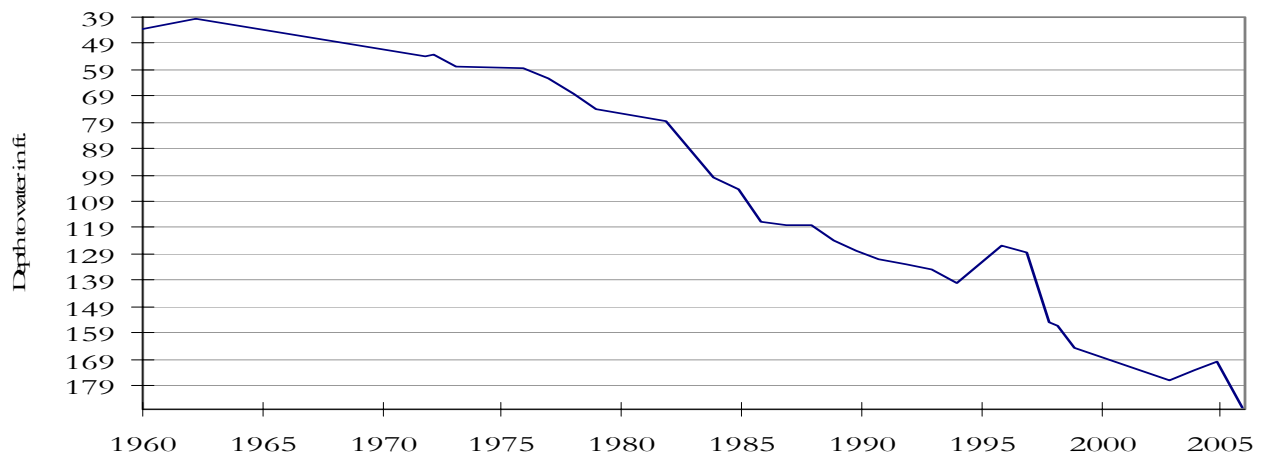
The late February water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 93.41 feet below land surface. This measurement was 0.42 feet below last month's measurement, 14.41 feet below last year's measurement, and 58.05 feet below the initial measurement recorded 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. 34-29-503  
Smith County**



This water level observation well, located 10 miles north of Tyler, at an elevation of 390 feet ASL, was completed in the Carrizo aquifer. Large water-level declines have occurred in northeast Texas around Tyler. Much of the pumpage has been for municipal supply, but industrial pumpage has also been significant.

February, 2006

Water level measurements were available for six of the seven key monitoring wells. Water levels rose in four of the monitoring wells since the beginning of February, ranging from 0.58 feet in the El Paso Co. (Bolson Deposits) well to 3.14 feet in the Harris Co. Evangeline well. Water levels declined in the remaining two monitoring wells, ranging from 0.42 feet in the Atascosa Co. Carrizo well to 3.05 feet in the Bexar Co. J-17 well. The J-17 well recorded a water level of 57.52 feet below land surface. This water level is approximately twenty-two (22) feet above the Stage 1 critical management level.

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