

# Texas Water Development Board



# WATER Conditions

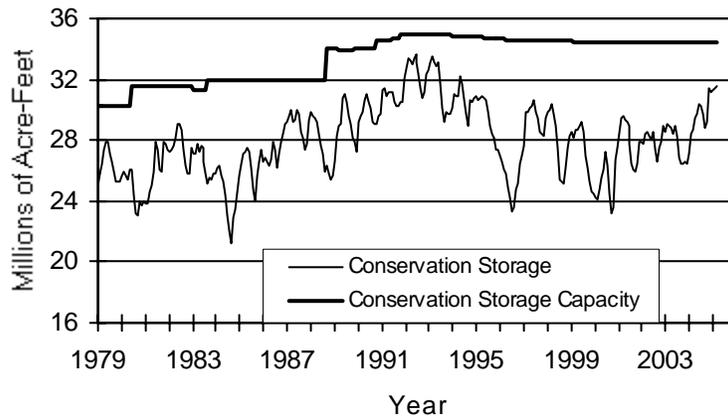
## RESERVOIR STORAGE

March 2005

Near the end of March, the 77 reservoirs monitored for this report held 31.6 million acre-feet in conservation storage, or **91.7** percent of the conservation storage capacity of the state's major reservoirs. Storage increased during the month by 0.15 million acre-feet (0.4% of conservation storage capacity). Compared to last year, storage increased by 2.91 million acre-feet (8.4%).

Storage was at capacity (100%) in the South Central and Upper Coast Regions, near capacity in the Edwards Plateau (98%), East (97%), and North Central (93%) Regions, but lower than one-third of capacity in the High Plains (31%) Region. Storage was at 100% in 32 reservoirs, and the Texas share of Amistad continued to remain above its capacity, reaching 147%. Compared to this time last year, all Regions except the East had increases in storage with the greatest increase in the Edwards Plateau Region (+34%). Storage in the East Region remained unchanged.

### 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.

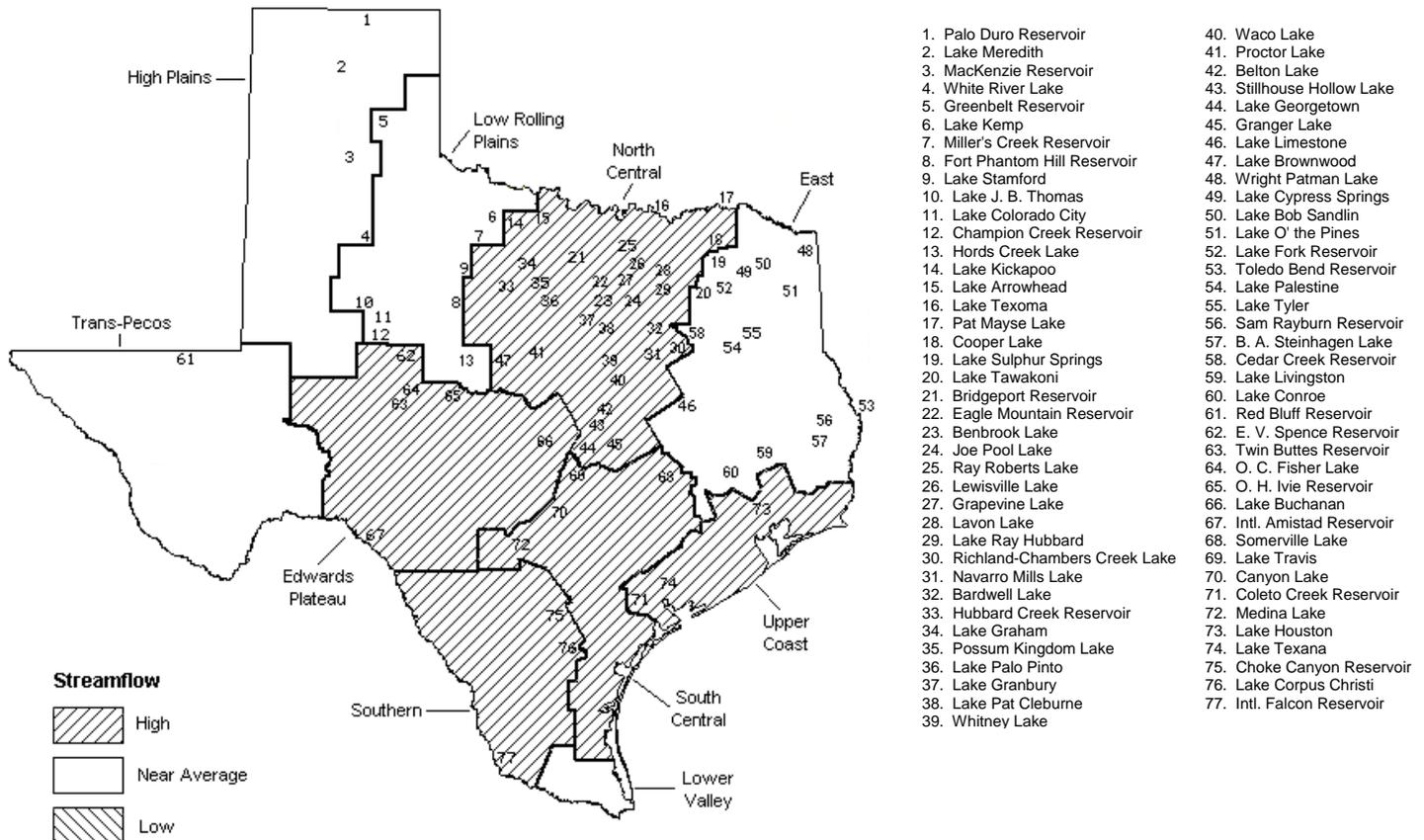
# STREAMFLOW

Of 29 reporting index stations in March, computed 30-day mean flows are very high (0% - 5% exceedance) at 1 station, high (5% - 30% exceedance) at 19 stations, and near normal (30% - 70% exceedance) at 9 stations. Compared to February, flows have increased at 12 index stations and decreased at 17 stations.

On a regional basis, flows in March were high in the North Central, Edwards Plateau, South Central, Upper Coast, and Southern Regions of the state and normal in the High Plains, Low Rolling Plains, East Texas, and Trans-Pecos Regions. Streamflow in the Lower Valley Region is not monitored.

## MARCH STREAMFLOW CONDITIONS

Reservoirs Shown on Map



## CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late Mar. 2005 (acre-feet) (%)	Change since Late February 2005 (acre-feet) (%)	Change since Late March 2004 (acre-feet) (%)
<b>HIGH PLAINS</b>					
Palo Duro Reservoir	1	60,900	4,100 7	-330 -1	1,630 3
Lake Meredith (Texas)	2	500,000	175,770 35	760 0	39,940 8
Lake Meredith (Texas and Oklahoma)	(2)	779,560	175,770 23	760 0	39,940 5
MacKenzie Reservoir	3	46,250	10,010 22	-40 0	4,270 9
White River Lake	4	31,850	10,030 31	-100 0	3,530 11
TOTAL		639,000	199,910 31	290 0	49,370 8
<b>LOW ROLLING PLAINS</b>					
Greenbelt Reservoir	5	58,200	23,710 41	350 1	-1,070 -2
Lake Kemp	6	319,600	254,320 80	0 0	63,100 20
Miller's Creek Reservoir	7	27,890	21,370 77	10 0	9,540 34
Fort Phantom Hill Reservoir	8	70,030	65,600 94	-520 -1	36,810 53
Lake Stamford	9	52,700	35,160 67	-1,040 -2	4,430 8
Lake J. B. Thomas	10	202,300	59,480 29	-1,980 -1	35,870 18
Lake Colorado City	11	30,800	30,630 99	-170 -1	7,890 26
Champion Creek Reservoir	12	41,600	5,130 12	0 0	1,610 4
Hords Creek Lake	13	8,600	8,420 98	50 1	6,050 70
TOTAL		811,720	503,820 62	-3,300 0	164,230 20
<b>NORTH CENTRAL</b>					
Lake Kickapoo	14	106,000	71,800 68	-1,590 -2	10,420 10
Lake Arrowhead	15	262,100	194,750 74	-3,630 -1	72,990 28
Lake Texoma	16	2,722,300	2,312,690 85	-216,790 -8	-74,620 -3
Pat Mayse Lake	17	124,500	123,810 99	-550 0	8,620 7
Cooper Lake	18	273,000	273,000 100	0 0	51,050 19
Lake Sulphur Springs	19	17,710	17,710 100	220 1	2,580 15
Lake Tawakoni	20	936,200	881,000 94	-11,900 -1	33,900 4
Bridgeport Reservoir	21	374,830	351,700 94	-1,700 0	127,000 34
Eagle Mountain Reservoir	22	178,380	178,380 100	0 0	30,580 17
Benbrook Lake	23	88,200	88,200 100	1,910 2	3,960 4
Joe Pool Lake	24	175,800	175,800 100	0 0	0 0
Ray Roberts Lake	25	798,760	798,760 100	0 0	63,410 8
Lewisville Lake	26	555,000	555,000 100	0 0	8,250 1
Grapevine Lake	27	187,700	181,330 97	-2,420 -1	20,120 11
Lavon Lake	28	443,800	443,800 100	0 0	35,910 8
Lake Ray Hubbard	29	413,420	413,300 100	-120 0	32,400 8
Richland-Chambers Creek Lake	30	1,103,820	1,103,820 100	0 0	0 0
Navarro Mills Lake	31	55,810	55,810 100	0 0	0 0
Bardwell Lake	32	53,580	46,910 88	-2,290 -4	110 0
Hubbard Creek Reservoir	33	317,800	186,420 59	-650 0	63,590 20
Lake Graham	34	45,000	40,870 91	-850 -2	18,930 42
Possum Kingdom Lake	35	551,820	507,400 92	-16,300 -3	75,700 14
Lake Palo Pinto	36	27,650	26,640 96	-110 0	8,670 31
Lake Granbury	37	135,680	131,900 97	-2,600 -2	-1,600 -1
Lake Pat Cleburne	38	25,300	25,300 100	0 0	410 2
Whitney Lake	39	622,800	583,960 94	1,350 0	78,450 13
Waco Lake	40	144,500	144,500 100	0 0	0 0
Proctor Lake	41	55,590	55,590 100	0 0	5,040 9
Belton Lake	42	434,500	434,500 100	0 0	0 0
Stillhouse Hollow Lake	43	226,060	226,060 100	0 0	6,120 3
Lake Georgetown	44	37,010	37,010 100	0 0	14,360 39
Granger Lake	45	54,280	54,280 100	0 0	0 0
Lake Limestone	46	215,750	214,160 99	-1,590 -1	-1,460 -1
Lake Brownwood	47	143,400	134,210 94	-7,720 -5	3,360 2
TOTAL		11,908,050	11,070,370 93	-267,330 -2	698,250 6

## CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late Mar. 2005 (acre-feet) (%)	Change since Late February 2005 (acre-feet) (%)	Change since Late March 2004 (acre-feet) (%)
<b>EAST</b>					
Wright Patman Lake	48	142,700	142,700 100	0 0	0 0
Lake Cypress Springs	49	66,800	66,800 100	0 0	0 0
Lake Bob Sandlin	50	202,300	202,300 100	0 0	0 0
Lake O' the Pines	51	252,000	248,840 99	1,400 1	1,750 1
Lake Fork Reservoir	52	635,200	635,200 100	0 0	0 0
Toledo Bend Reservoir	53	4,472,900	4,165,000 93	74,000 2	16,000 0
Lake Palestine	54	411,300	411,300 100	0 0	0 0
Lake Tyler	55	73,700	73,700 100	0 0	0 0
Sam Rayburn Reservoir	56	2,876,300	2,876,300 100	0 0	0 0
B. A. Steinhagen Lake	57	94,200	84,390 90	7,640 8	-9,810 -10
Cedar Creek Reservoir	58	637,050	636,900 100	-150 0	44,700 7
Lake Livingston	59	1,750,000	1,750,000 100	0 0	0 0
Lake Conroe	60	429,900	417,600 97	-4,500 -1	-2,100 0
TOTAL		12,044,350	11,711,030 97	78,390 1	50,540 0
<b>TRANS-PECOS</b>					
Red Bluff Reservoir	61	307,000	129,870 42	6,660 2	72,640 24
TOTAL		307,000	129,870 42	6,660 2	72,640 24
<b>EDWARDS PLATEAU</b>					
E. V. Spence Reservoir	62	488,760	77,210 16	-1,640 0	30,210 6
Twin Buttes Reservoir	63	177,800	38,820 22	4,220 2	33,370 19
O.C. Fisher Lake	64	119,200	7,340 6	90 0	4,520 4
O. H. Ivie Reservoir	65	554,340	318,400 57	46,400 8	126,570 23
Lake Buchanan	66	896,980	888,300 99	-8,680 -1	59,060 7
Amistad Reservoir (Texas)	67	1,771,030	2,598,000 147	162,000 9	1,105,000 62
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	2,967,000 94	-28,000 -1	1,273,000 40
TOTAL		4,008,110	3,928,070 98	202,390 5	1,358,730 34
<b>SOUTH CENTRAL</b>					
Somerville Lake	68	155,060	155,060 100	0 0	0 0
Lake Travis	69	1,144,100	1,144,100 100	0 0	139,200 12
Canyon Lake	70	385,600	379,260 98	-2,150 -1	-830 0
Coletto Creek Reservoir	71	35,060	32,040 91	-110 0	80 0
Medina Lake	72	254,000	254,000 100	0 0	18,500 7
TOTAL		1,973,820	1,964,460 100	-2,260 0	156,950 8
<b>UPPER COAST</b>					
Lake Houston	73	128,860	128,860 100	0 0	0 0
Lake Texana	74	157,900	156,560 99	-510 0	1,520 1
TOTAL		286,760	285,420 100	-510 0	1,520 1

## CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late Mar. 2005 (acre-feet) (%)	Change since Late February 2005 (acre-feet) (%)	Change since Late March 2004 (acre-feet) (%)
------------------------------	------------------	--	---	--	---

### SOUTHERN

Choke Canyon Reservoir	75	695,260	691,000	99	-4,260	-1	1,000	0
Lake Corpus Christi	76	241,240	241,240	100	0	0	40	0
Falcon Reservoir (Texas)	77	1,555,120	878,000	56	142,000	9	354,000	23
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	1,854,000	70	106,000	4	632,000	24
TOTAL		2,491,620	1,810,240	73	137,740	6	355,040	14

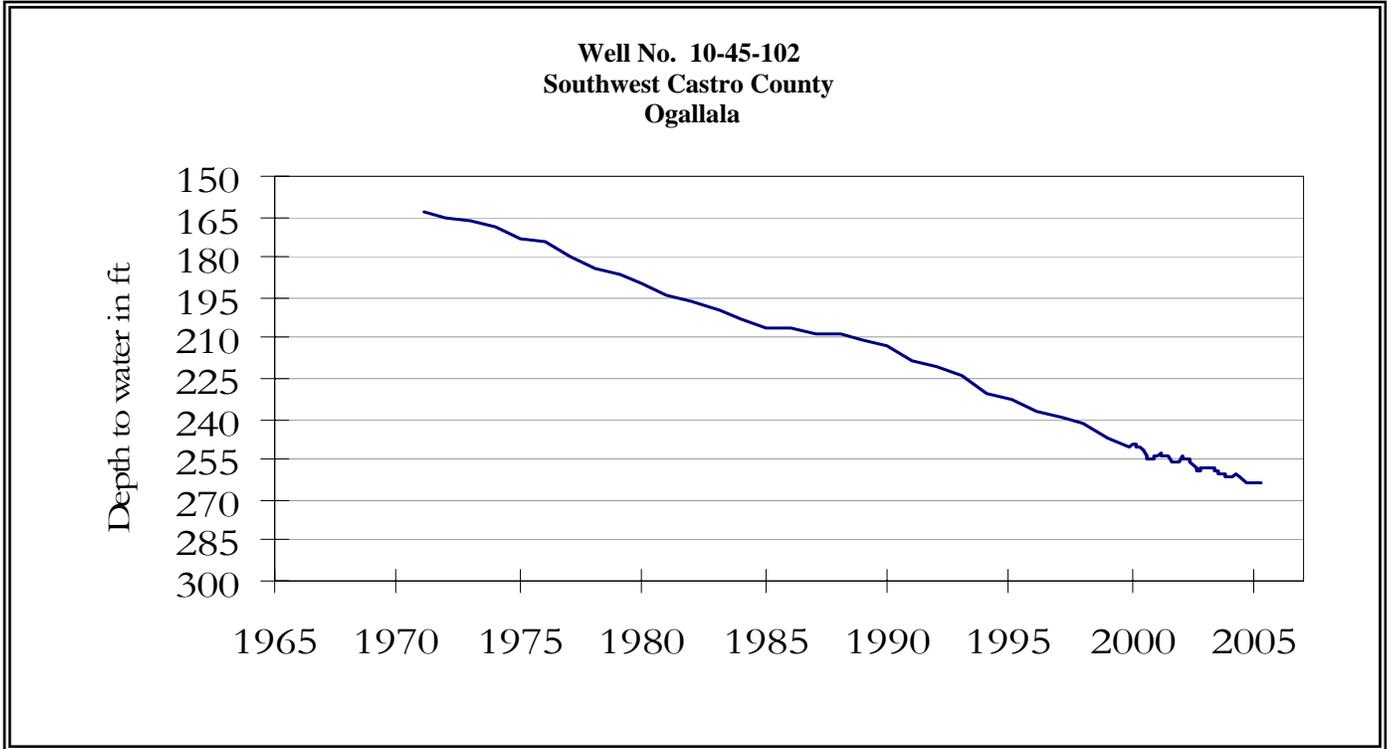
<b>STATE TOTAL</b>		34,470,430	31,603,190	92	152,070	0	2,907,270	8
--------------------	--	------------	------------	----	---------	---	-----------	---

**Note:**

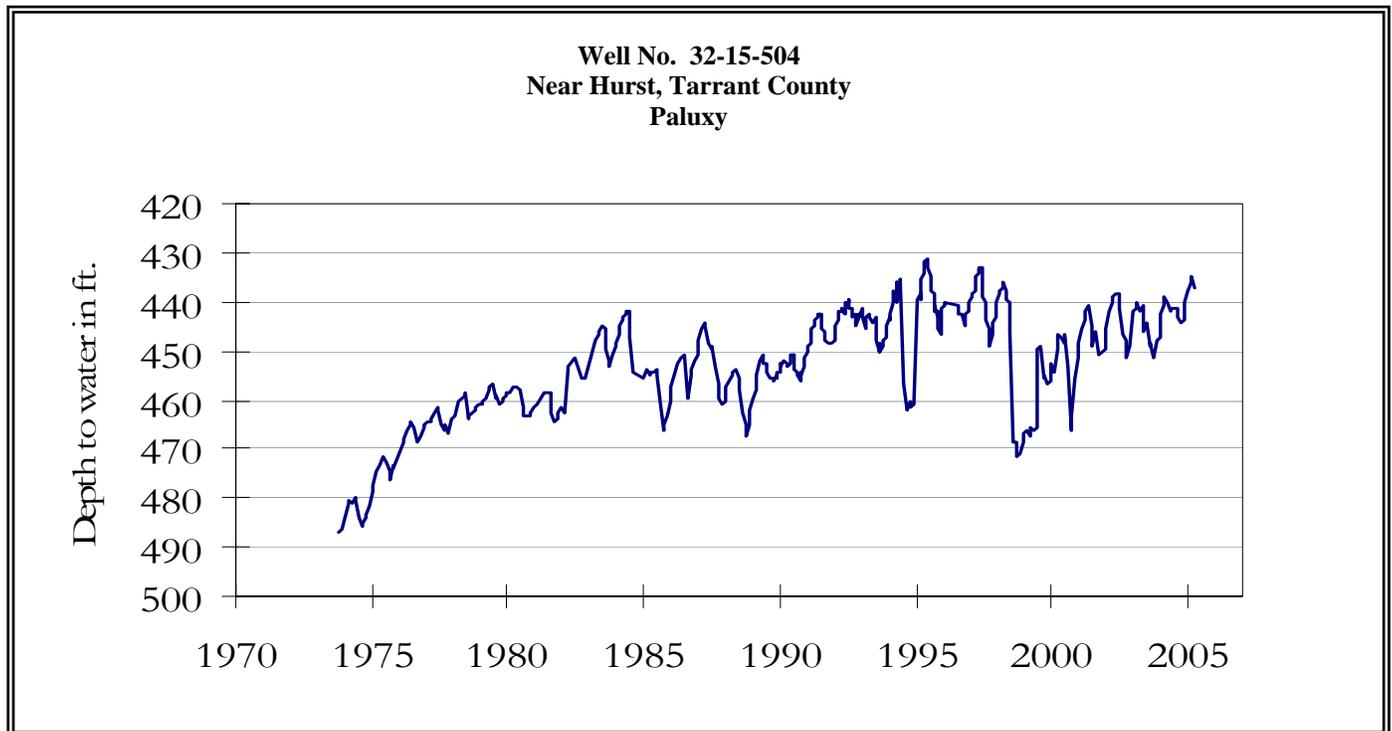
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included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

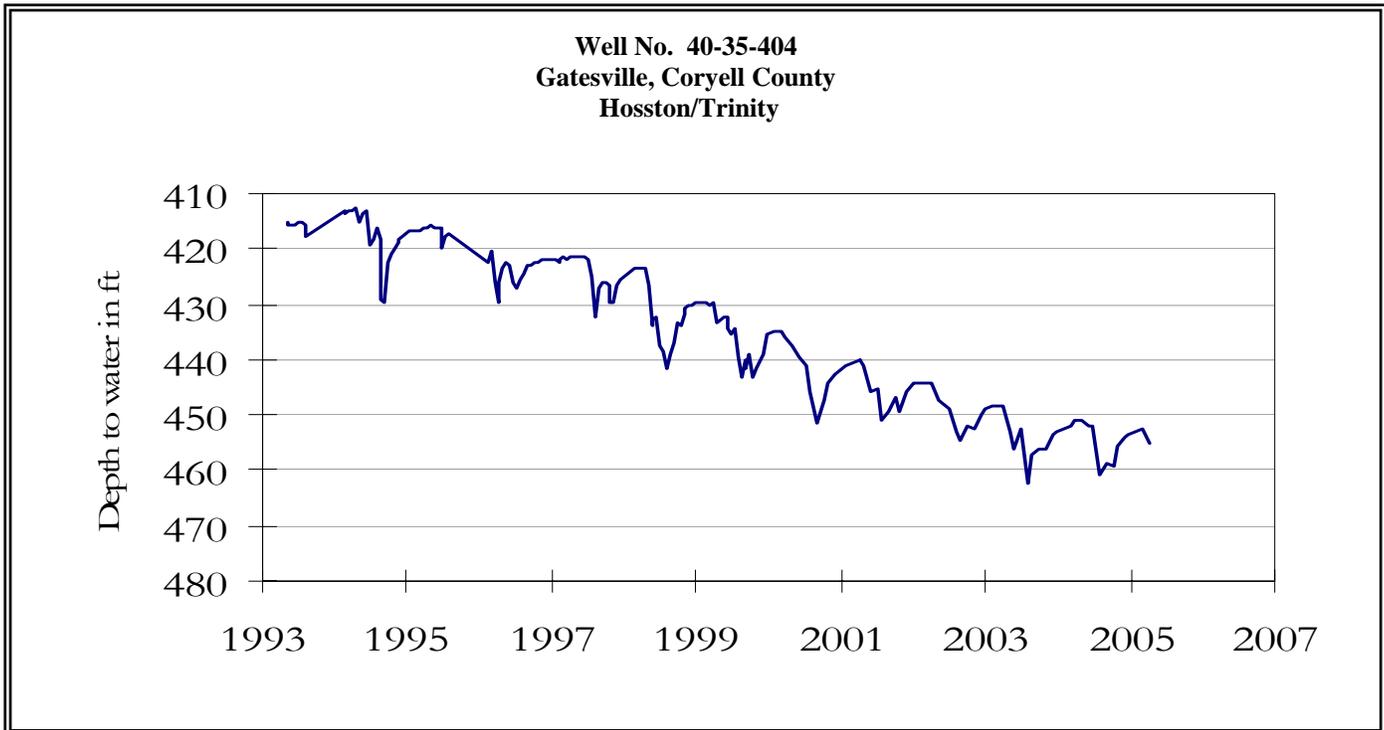
# MARCH GROUND WATER LEVELS IN OBSERVATION WELLS



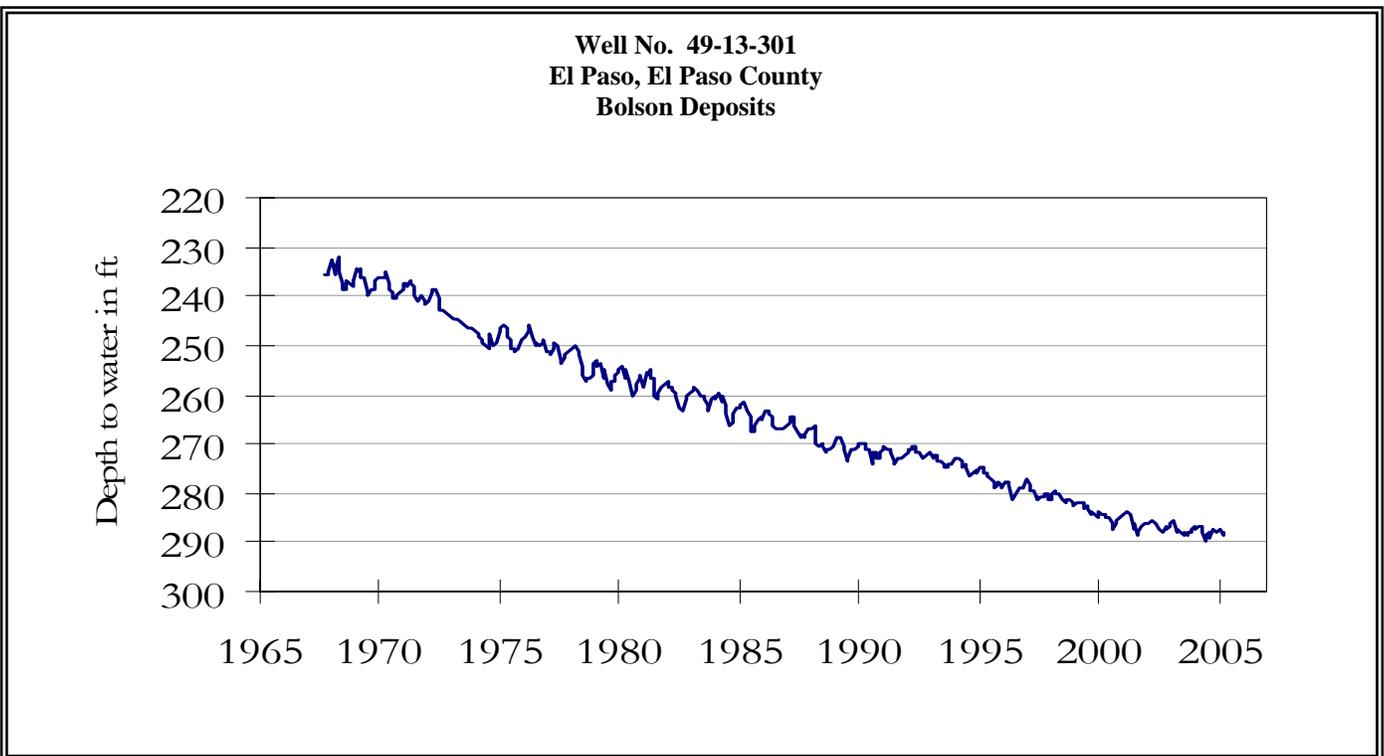
The late March water-level measurement in this Ogallala aquifer well, elevation 3,816 feet above sea level, was 263.33 feet below land surface. This measurement was 0.7 foot above last month's measurement, 2.53 feet below last year's measurement, and 107.33 feet below the initial measurement recorded in 1968.



The late March water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 437.44 feet below land surface. This measurement was 2.34 feet below last month's measurement, 2.46 feet above last year's measurement, and 44.05 feet below the initial measurement recorded in 1953.

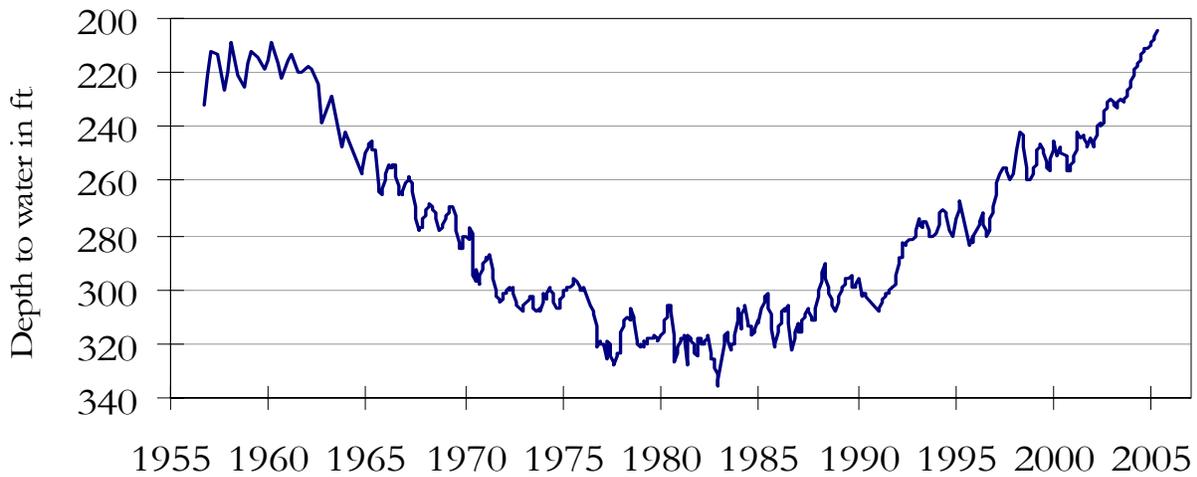


The late March water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 454.9 feet below land surface. This water level was 2.3 feet below last month's measurement, 3.7 feet below last year's measurement, and 162.9 feet below the initial measurement recorded in 1955.



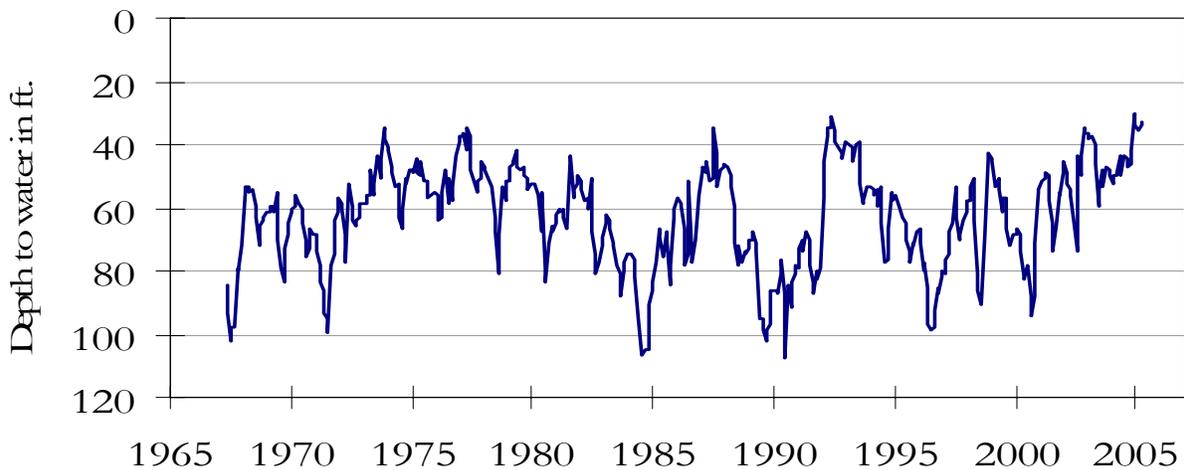
The late March water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 288.61 feet below land surface. This was 0.21 foot below last month's measurement, 1.71 feet below last year's measurement, and 56.71 feet below the initial measurement recorded in 1964.

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



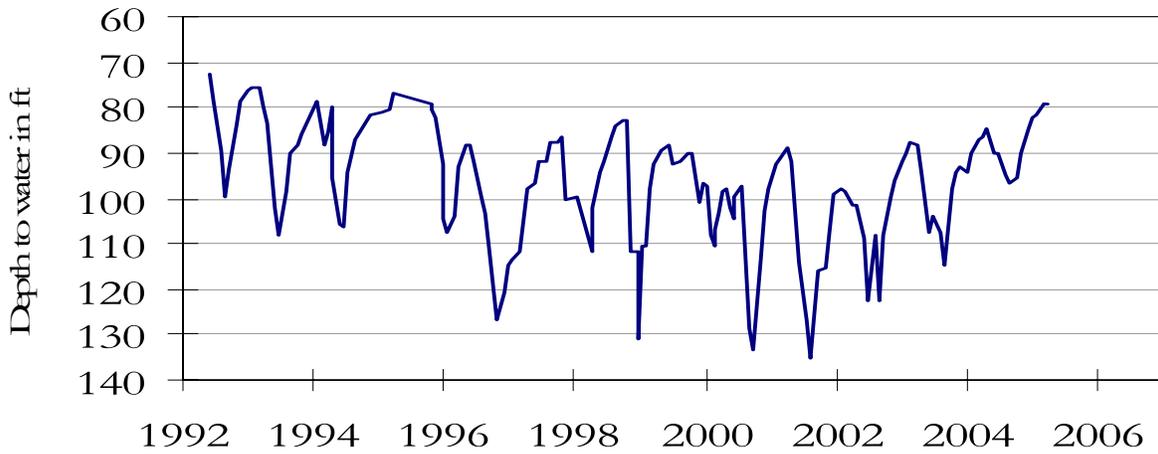
The late March water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 204.73 feet below land surface. This was 1.37 feet above last month's measurement, 12.77 feet above last year's measurement, and 101.5 feet below the initial measurement recorded in 1947.

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



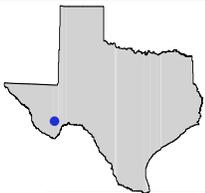
The late March water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 33.08 feet below land surface. This was 1.02 feet above last month's measurement, 15.52 feet above last year's measurement, and 26.54 feet above the initial measurement recorded in 1962.

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



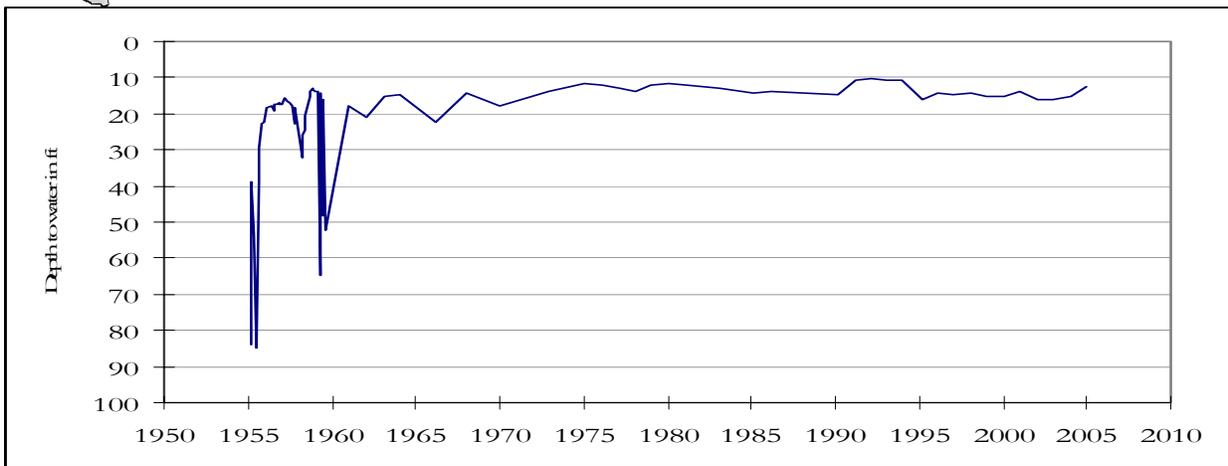
The late March water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 79.37 feet below land surface. This measurement was 0.37 foot below last month's measurement, 7.27 feet above last year's measurement, and 1.88 feet above the initial measurement recorded in 1965.

***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. 52-35-901  
Brewster County**



This unused water level observation well, located 2 miles north of Alpine, at an elevation of 4,390 feet ASL, was completed in the Igneous Aquifer. This well was owed by the City of Alpine. Although current water level data indicates a steady state, water shortages have occurred in other wells in the Alpine water system during prolonged dry periods.

March, 2005

Water levels rose in three of the seven key monitoring wells since the beginning of March, ranging from 0.07 foot in the Castro County Ogallala well to 1.37 feet in the Harris County Evangeline well. The water level declined in the remaining four monitoring wells, ranging from 0.21 foot in the El Paso County Bolson Deposits well to 2.34 feet in the Tarrant County Paluxy well. The J-17 well recorded a water level of 33.08 feet below the land surface, a rise of 1.02 feet from the February 2005 measurement. This water level is approximately forty-seven (47) feet above the Stage I critical water management criteria.

*TEXAS WATER DEVELOPMENT BOARD  
1700 N. CONGRESS AVE.  
P.O. BOX 13231  
AUSTIN TX 78711-3231*