

Texas Water Development Board



WATER Conditions

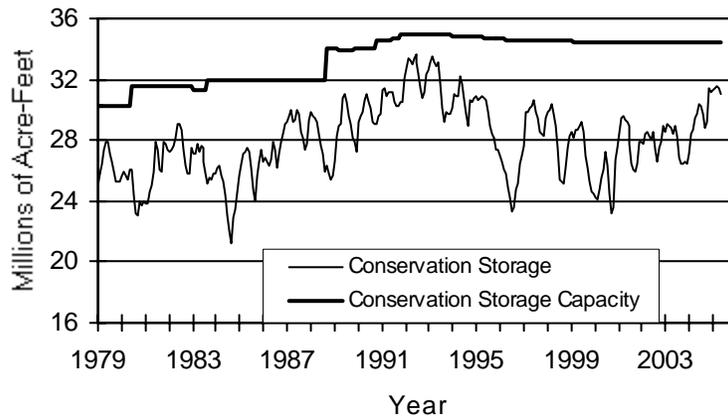
RESERVOIR STORAGE

May 2005

Near the end of May, the 77 reservoirs monitored for this report held 30.98 million acre-feet in conservation storage, or **90** percent of the conservation storage capacity of the state's major reservoirs. Storage decreased during the month by 0.47 million acre-feet (1.35% of conservation storage capacity). Compared to last year, storage increased by 1.28 million acre-feet (3.7%).

Storage was at capacity (100%) in the South Central Region, near capacity in the Upper Coast (99%), East (96%), Edwards Plateau (95%), and North Central (91%) Regions, but lower than one-third of capacity in the High Plains (30%) Region. Storage was at 100% in 24 reservoirs, and the Texas share of Amistad continued to remain above its capacity, at 140%. Compared to this time last year, the storage increased in six regions with the greatest increase in the Edwards Plateau Region (+27%), decreased in the East Region (3%), and remained unchanged in Upper Coast and South Central Regions. Reservoir storage in the Lower Valley Region is not monitored.

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.

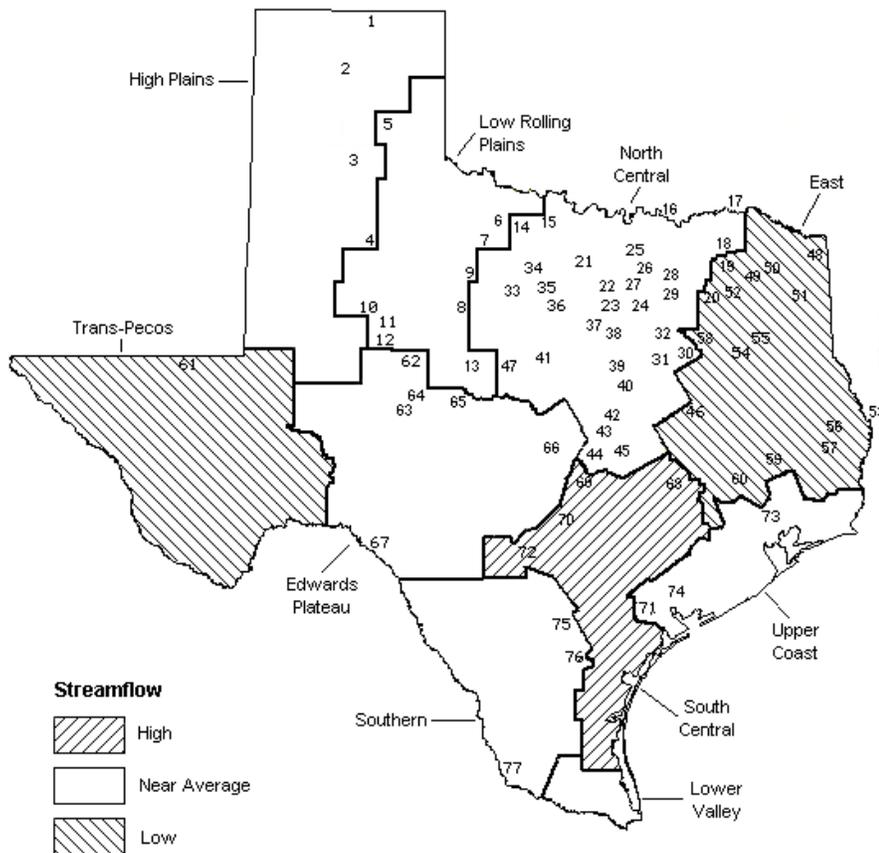
STREAMFLOW

Of 29 reporting index stations in May, computed 30-day mean flows were high (5% - 30% exceedance) at 10 stations, low (70% - 95%) at 4 station, and near normal (30% - 70% exceedance) at 15 stations. Compared to April, flows have increased at 8 index stations and decreased at 21 stations.

On a regional basis, flows in May were high in the South Central Region, low in the Trans-Pecos and East Texas Regions and normal everywhere else. Streamflow in the Lower Valley Region is not monitored.

MAY STREAMFLOW CONDITIONS

Reservoirs Shown on Map



- | | |
|----------------------------------|-----------------------------|
| 1. Palo Duro Reservoir | 40. Waco Lake |
| 2. Lake Meredith | 41. Proctor Lake |
| 3. MacKenzie Reservoir | 42. Belton Lake |
| 4. White River Lake | 43. Stillhouse Hollow Lake |
| 5. Greenbelt Reservoir | 44. Lake Georgetown |
| 6. Lake Kemp | 45. Granger Lake |
| 7. Miller's Creek Reservoir | 46. Lake Limestone |
| 8. Fort Phantom Hill Reservoir | 47. Lake Brownwood |
| 9. Lake Stamford | 48. Wright Patman Lake |
| 10. Lake J. B. Thomas | 49. Lake Cypress Springs |
| 11. Lake Colorado City | 50. Lake Bob Sandlin |
| 12. Champion Creek Reservoir | 51. Lake O' the Pines |
| 13. Hords Creek Lake | 52. Lake Fork Reservoir |
| 14. Lake Kickapoo | 53. Toledo Bend Reservoir |
| 15. Lake Arrowhead | 54. Lake Palestine |
| 16. Lake Texoma | 55. Lake Tyler |
| 17. Pat Mays Lake | 56. Sam Rayburn Reservoir |
| 18. Cooper Lake | 57. B. A. Steinhagen Lake |
| 19. Lake Sulphur Springs | 58. Cedar Creek Reservoir |
| 20. Lake Tawakoni | 59. Lake Livingston |
| 21. Bridgeport Reservoir | 60. Lake Conroe |
| 22. Eagle Mountain Reservoir | 61. Red Bluff Reservoir |
| 23. Benbrook Lake | 62. E. V. Spence Reservoir |
| 24. Joe Pool Lake | 63. Twin Buttes Reservoir |
| 25. Ray Roberts Lake | 64. O. C. Fisher Lake |
| 26. Lewisville Lake | 65. O. H. Ivie Reservoir |
| 27. Grapevine Lake | 66. Lake Buchanan |
| 28. Lavon Lake | 67. Intl. Amistad Reservoir |
| 29. Lake Ray Hubbard | 68. Somerville Lake |
| 30. Richland-Chambers Creek Lake | 69. Lake Travis |
| 31. Navarro Mills Lake | 70. Canyon Lake |
| 32. Bardwell Lake | 71. Coletto Creek Reservoir |
| 33. Hubbard Creek Reservoir | 72. Medina Lake |
| 34. Lake Graham | 73. Lake Houston |
| 35. Possum Kingdom Lake | 74. Lake Texana |
| 36. Lake Palo Pinto | 75. Choke Canyon Reservoir |
| 37. Lake Granbury | 76. Lake Corpus Christi |
| 38. Lake Pat Cleburne | 77. Intl. Falcon Reservoir |
| 39. Whitney Lake | |

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 May, 2005 (acre-feet) (%)	Late April 2005 (acre-feet) (%)	Late May 2004 (acre-feet) (%)			
HIGH PLAINS								
Palo Duro Reservoir	1	60,900	3,520	6	-320	-1	1,250	2
Lake Meredith (Texas)	2	500,000	169,130	34	-3,580	-1	34,770	7
Lake Meredith (Texas and Oklahoma)	(2)	779,560	169,130	22	-3,580	0	34,770	4
MacKenzie Reservoir	3	46,250	10,080	22	210	0	4,580	10
White River Lake	4	31,850	9,190	29	-410	-1	2,610	8
TOTAL		639,000	191,920	30	-4,100	-1	43,210	7
LOW ROLLING PLAINS								
Greenbelt Reservoir	5	58,200	23,950	41	30	0	-510	-1
Lake Kemp	6	319,600	234,980	74	-11,830	-4	66,430	21
Miller's Creek Reservoir	7	27,890	20,220	72	-360	-1	9,180	33
Fort Phantom Hill Reservoir	8	70,030	61,610	88	-1,080	-2	29,760	42
Lake Stamford	9	52,700	32,570	62	-690	-1	2,140	4
Lake J. B. Thomas	10	202,300	54,570	27	-2,280	-1	32,720	16
Lake Colorado City	11	30,800	29,620	96	-270	-1	6,860	22
Champion Creek Reservoir	12	41,600	4,970	12	-30	0	1,620	4
Hords Creek Lake	13	8,600	8,050	94	-40	0	5,330	62
TOTAL		811,720	470,540	58	-16,550	-2	153,530	19
NORTH CENTRAL								
Lake Kickapoo	14	106,000	66,500	63	-2,170	-2	10,270	10
Lake Arrowhead	15	262,100	187,540	72	-1,170	0	71,890	27
Lake Texoma	16	2,722,300	2,222,900	82	-17,520	-1	-269,000	-10
Pat Mayse Lake	17	124,500	117,870	95	-2,720	-2	760	1
Cooper Lake	18	273,000	261,630	96	-11,370	-4	55,230	20
Lake Sulphur Springs	19	17,710	16,850	95	-860	-5	-190	-1
Lake Tawakoni	20	936,200	837,800	89	-29,100	-3	-34,000	-4
Bridgeport Reservoir	21	374,830	343,100	92	-5,000	-1	115,700	31
Eagle Mountain Reservoir	22	178,380	170,300	95	-5,800	-3	28,800	16
Benbrook Lake	23	88,200	83,220	94	-1,020	-1	-4,980	-6
Joe Pool Lake	24	175,800	175,800	100	0	0	0	0
Ray Roberts Lake	25	798,760	794,870	100	-3,890	0	36,770	5
Lewisville Lake	26	555,000	555,000	100	0	0	0	0
Grapevine Lake	27	187,700	178,950	95	-2,600	-1	13,900	7
Lavon Lake	28	443,800	443,800	100	0	0	40,260	9
Lake Ray Hubbard	29	413,420	413,420	100	120	0	47,320	11
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	47,020	88	-900	-2	260	0
Hubbard Creek Reservoir	33	317,800	182,820	58	510	0	54,050	17
Lake Graham	34	45,000	39,660	88	-230	-1	16,960	38
Possum Kingdom Lake	35	551,820	478,600	87	-9,200	-2	40,500	7
Lake Palo Pinto	36	27,650	25,280	91	-120	0	6,810	25
Lake Granbury	37	135,680	133,500	98	400	0	200	0
Lake Pat Cleburne	38	25,300	25,300	100	0	0	0	0
Whitney Lake	39	622,800	598,890	96	4,750	1	14,470	2
Waco Lake	40	144,500	144,500	100	0	0	0	0
Proctor Lake	41	55,590	55,190	99	-400	-1	3,200	6
Belton Lake	42	434,500	434,500	100	0	0	0	0
Stillhouse Hollow Lake	43	226,060	226,060	100	0	0	0	0
Lake Georgetown	44	37,010	37,010	100	0	0	6,070	16
Granger Lake	45	54,280	54,280	100	0	0	0	0
Lake Limestone	46	215,750	212,060	98	-1,840	-1	1,570	1
Lake Brownwood	47	143,400	136,820	95	5,180	4	6,620	5
TOTAL		11,908,050	10,860,670	91	-84,950	-1	263,440	2

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 May, 2005 (acre-feet) (%)	Late April 2005 (acre-feet) (%)	Late May 2004 (acre-feet) (%)			
EAST								
Wright Patman Lake	48	142,700	142,700	100	0	0	0	0
Lake Cypress Springs	49	66,800	66,540	100	-260	0	-260	0
Lake Bob Sandlin	50	202,300	197,200	97	-5,100	-3	-5,100	-3
Lake O' the Pines	51	252,000	231,930	92	-9,550	-4	-20,070	-8
Lake Fork Reservoir	52	635,200	635,200	100	0	0	0	0
Toledo Bend Reservoir	53	4,472,900	4,065,000	91	-194,000	-4	-363,000	-8
Lake Palestine	54	411,300	406,530	99	-4,770	-1	-4,770	-1
Lake Tyler	55	73,700	73,700	100	0	0	0	0
Sam Rayburn Reservoir	56	2,876,300	2,849,240	99	-27,060	-1	-27,060	-1
B. A. Steinhagen Lake	57	94,200	85,560	91	1,820	2	-5,060	-5
Cedar Creek Reservoir	58	637,050	632,200	99	-4,700	-1	1,500	0
Lake Livingston	59	1,750,000	1,750,000	100	2,000	0	13,000	1
Lake Conroe	60	429,900	409,200	95	-5,700	-1	-6,300	-1
TOTAL		12,044,350	11,545,000	96	-247,320	-2	-417,120	-3
TRANS-PECOS								
Red Bluff Reservoir	61	307,000	125,180	41	-3,120	-1	41,420	13
TOTAL		307,000	125,180	41	-3,120	-1	41,420	13
EDWARDS PLATEAU								
E. V. Spence Reservoir	62	488,760	73,500	15	-1,040	0	27,390	6
Twin Buttes Reservoir	63	177,800	41,620	23	2,000	1	36,180	20
O.C. Fisher Lake	64	119,200	6,850	6	-160	0	4,370	4
O. H. Ivie Reservoir	65	554,340	320,800	58	4,200	1	133,270	24
Lake Buchanan	66	896,980	877,220	98	8,870	1	13,270	1
Amistad Reservoir (Texas)	67	1,771,030	2,478,000	140	-76,000	-4	869,000	49
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	2,853,000	91	-67,000	-2	1,058,000	34
TOTAL		4,008,110	3,797,990	95	-62,130	-2	1,083,480	27
SOUTH CENTRAL								
Somerville Lake	68	155,060	155,060	100	0	0	0	0
Lake Travis	69	1,144,100	1,144,100	100	0	0	8,300	1
Canyon Lake	70	385,600	385,600	100	0	0	0	0
Coleta Creek Reservoir	71	35,060	31,440	90	-490	-1	-680	-2
Medina Lake	72	254,000	254,000	100	0	0	0	0
TOTAL		1,973,820	1,970,200	100	-490	0	7,620	0
UPPER COAST								
Lake Houston	73	128,860	128,860	100	0	0	0	0
Lake Texana	74	157,900	155,640	99	5,400	3	-1,230	-1
TOTAL		286,760	284,500	99	5,400	2	-1,230	0

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

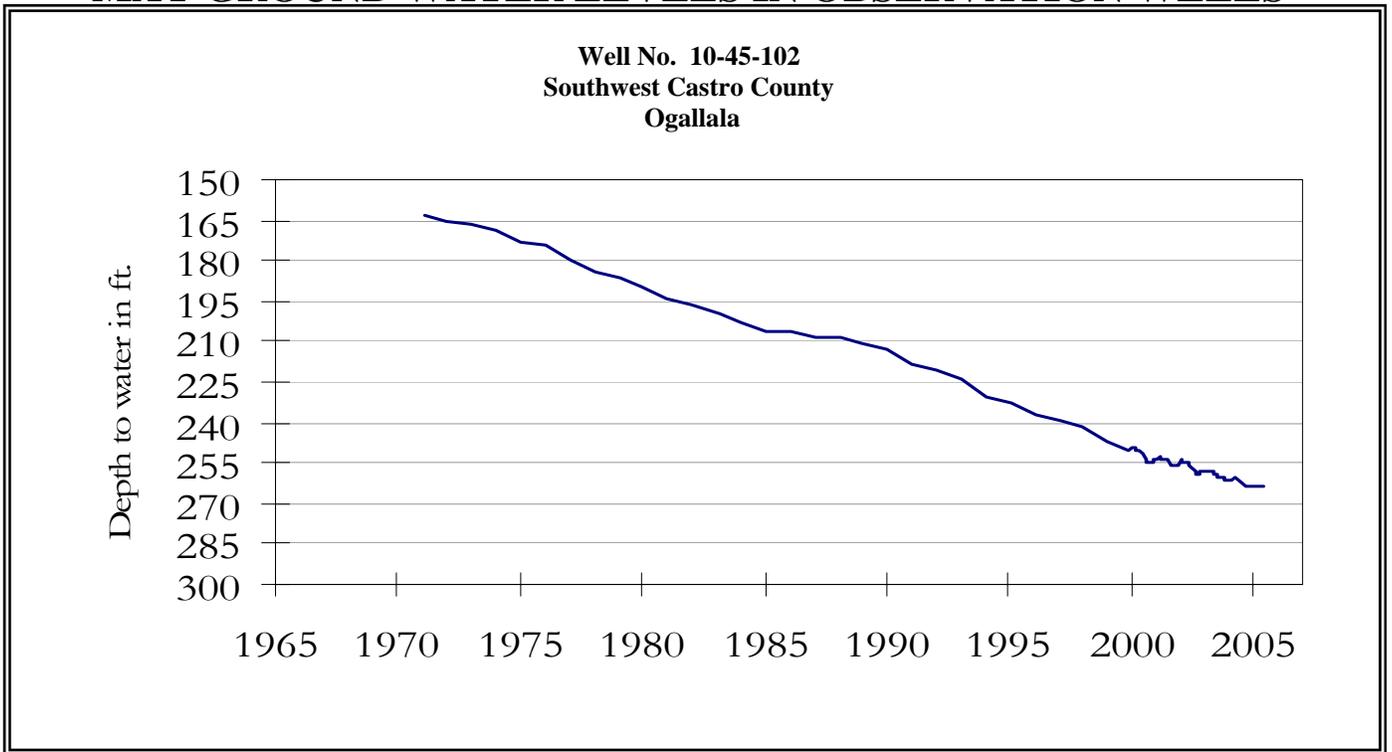
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late May, 2005 (acre-feet)	(%)	Change since Late April 2005 (acre-feet)	(%)	Change since Late May 2004 (acre-feet)	(%)
SOUTHERN								
Choke Canyon Reservoir	75	695,260	688,000	99	-4,000	-1	-3,000	0
Lake Corpus Christi	76	241,240	241,200	100	-40	0	-40	0
Falcon Reservoir (Texas)	77	1,555,120	807,000	52	-49,000	-3	112,000	7
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	1,242,000	47	-198,000	-7	-364,000	-14
TOTAL		2,491,620	1,736,200	70	-53,040	-2	108,960	4
 STATE TOTAL		 34,470,430	 30,982,200	 90	 -466,300	 -1	 1,283,310	 4

Note:

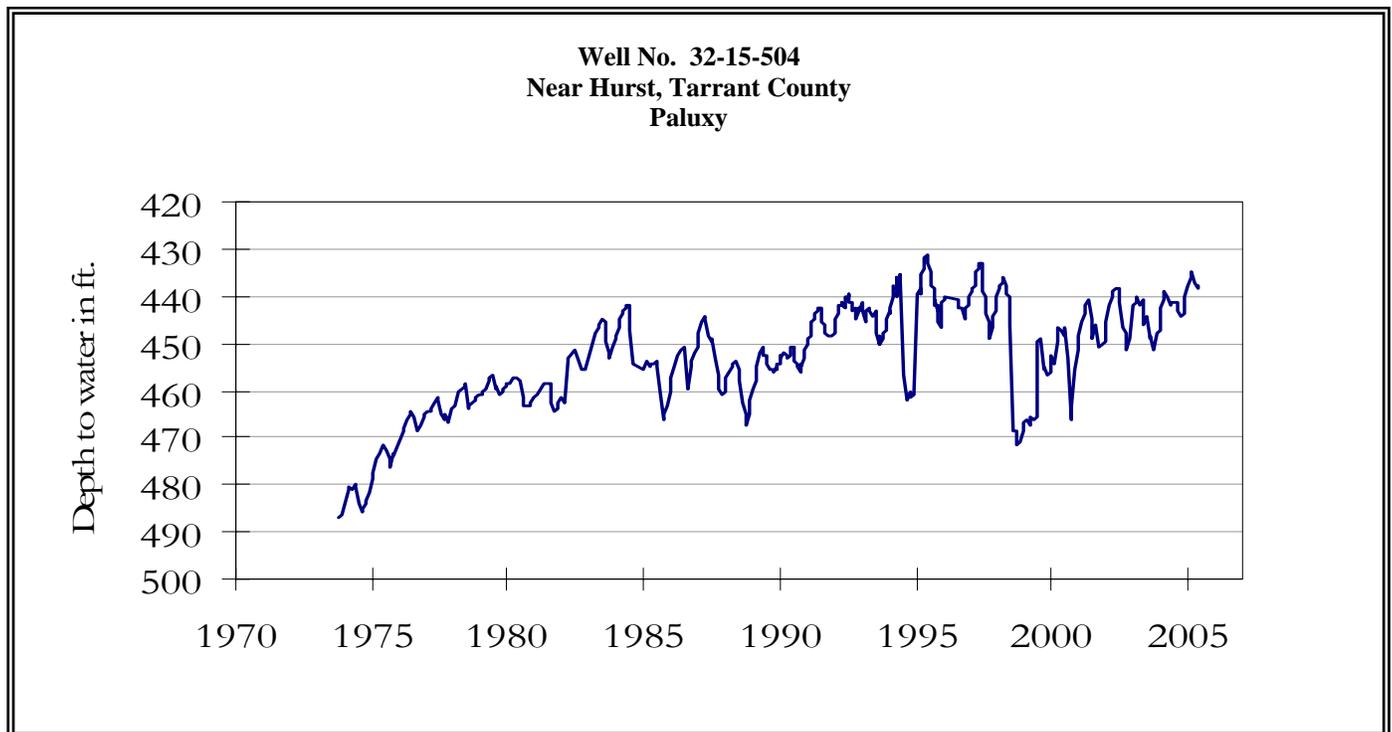
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included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

MAY GROUND WATER LEVELS IN OBSERVATION WELLS

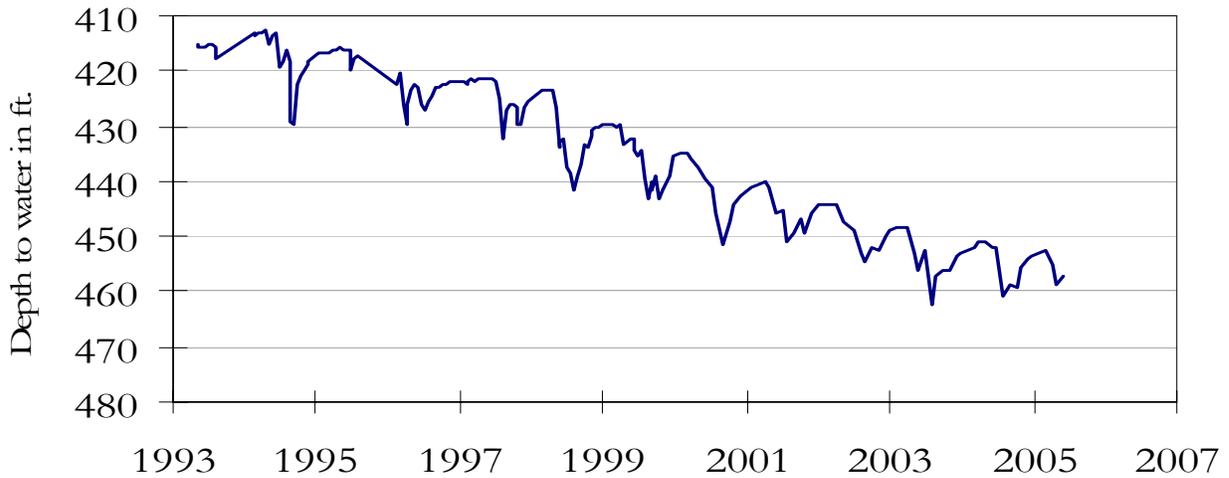


The late May water-level measurement in this Ogallala aquifer well, elevation 3,816 feet above sea level, was 263.46 feet below land surface. This measurement was 0.09 foot below last month's measurement, 1.56 feet below last year's measurement, and 107.46 feet below the initial measurement of 156.00 feet below sea level recorded in 1968.



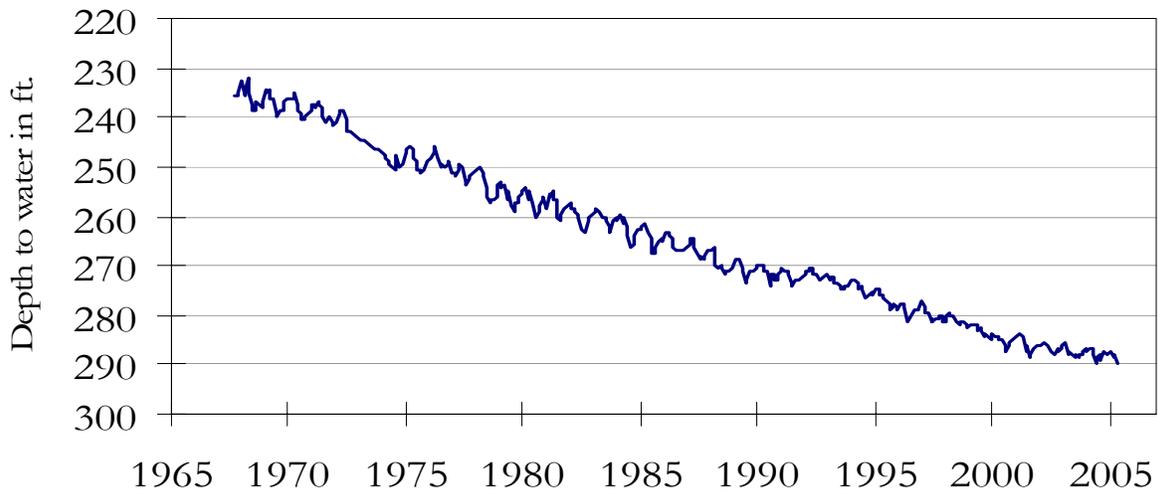
The late May water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 437.92 feet below land surface. This measurement was 0.72 feet above last month's measurement, 3.51 feet above last year's measurement, and 59.92 feet below the initial measurement of 480.00 feet below sea level recorded in 1953.

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



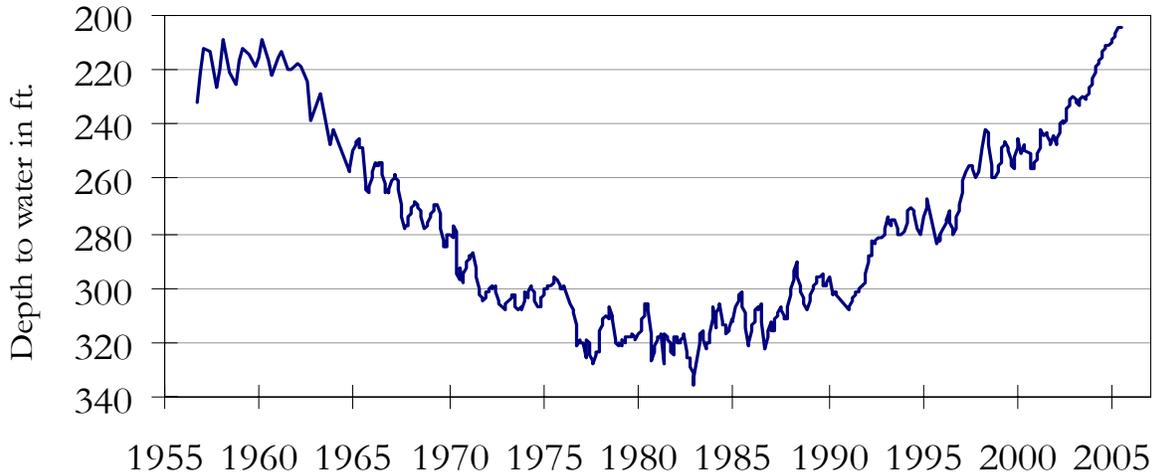
The late May water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 456.95 feet below land surface. This water level was 1.96 feet above last month's measurement, 4.85 feet below last year's measurement, and 164.95 feet below the initial measurement of 292.00 feet below sea level recorded in 1955.

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



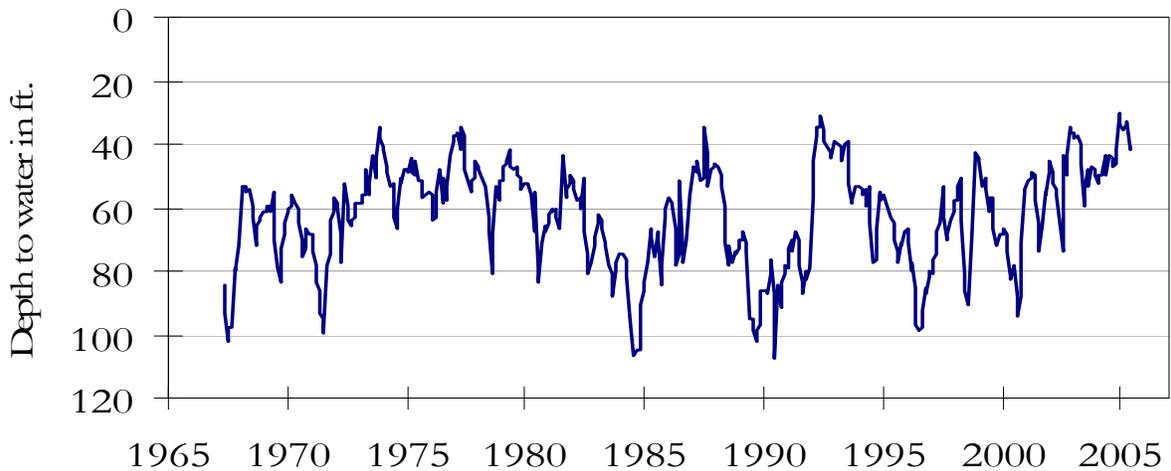
The late May water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 289.94 feet below land surface. This was 0.11 feet below last month's measurement, 0.26 feet below last year's measurement, and 58.04 feet below the initial measurement of 231.90 feet below sea level recorded in 1964.

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



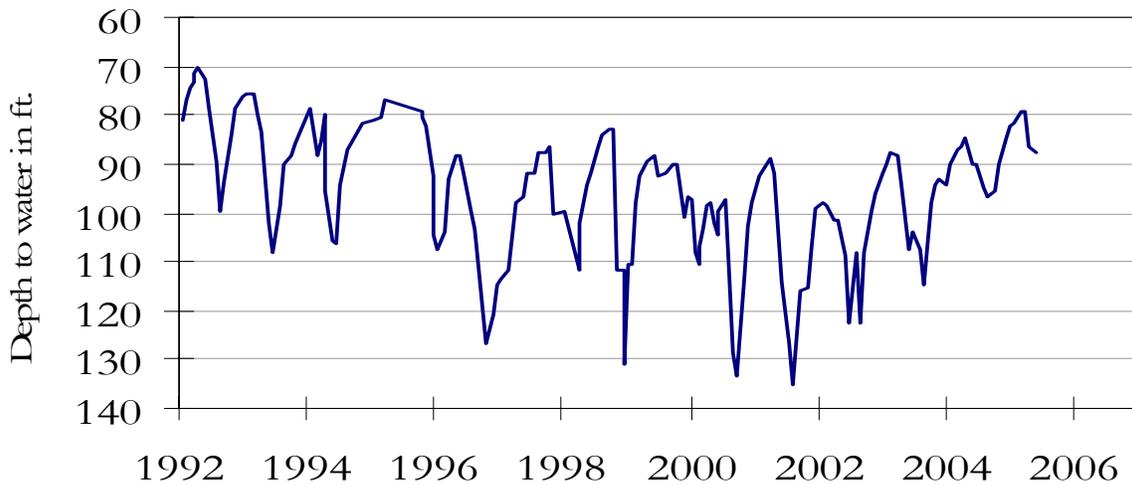
The late May water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 204.13 feet below land surface. This was 0.04 foot below last month's measurement, 10.80 feet above last year's measurement, and 68.63 feet below the initial measurement of 135.50 feet below sea level recorded in 1947.

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



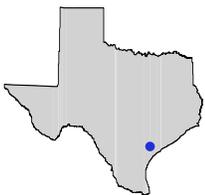
The late May water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 40.74 feet below land surface. This was 1.08 feet above last month's measurement, 9.47 feet above last year's measurement, and 5.90 feet above the initial measurement of 46.64 feet below sea level recorded in 1932.

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



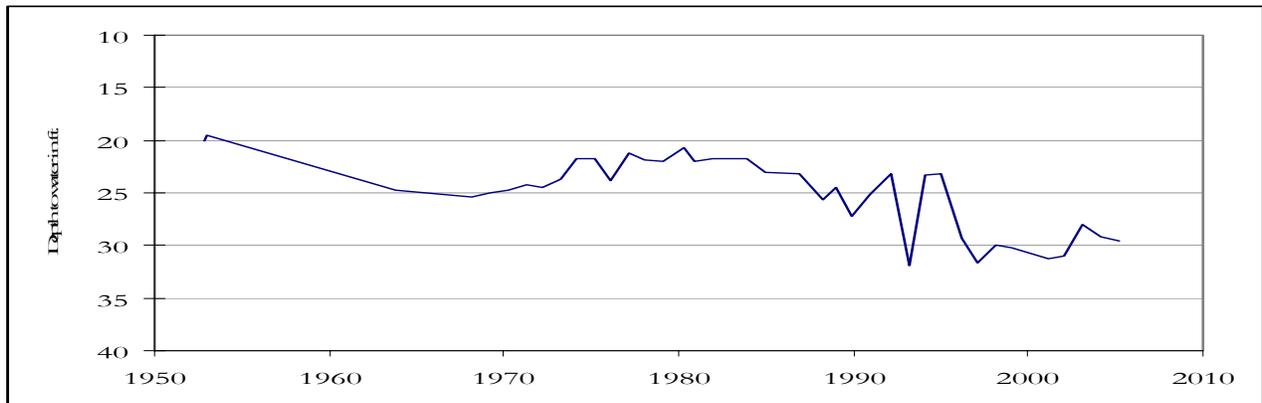
The late May water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 87.96 feet below land surface. This measurement was 1.56 feet below last month's measurement, 2.39 feet above last year's measurement, and 52.60 feet below the initial measurement of 35.36 feet below sea level 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. 79-03-702
Karnes County**



This water level observation well, located 9 miles east of Karnes City, at an elevation of 246 feet ASL, was completed in the Gulf Coast aquifer. Although water levels continued to decline within the aquifer in certain areas during the 1980-1990 decade, the rate of those declines has decreased when compared to historical trends through increased use of surface-water supplies.

May, 2005

Water levels rose in three of the seven key monitoring wells since the beginning of May, ranging from 0.72 feet in the Tarrant County Paluxy well to 1.96 feet in the Coryell Co. Hosston/Trinity well. The water level declined in the remaining four monitoring wells, ranging from 0.04 feet in the Harris Co. Evangeline (Gulf Coast aquifer) well to 1.56 feet in the Atascosa Co. Carrizo well. The J-17 well recorded a water level of 40.74 feet below the land surface, a rise of 1.08 feet from the April 2005 measurement. This water level is approximately thirty-nine (39) feet above the Stage I critical water management criteria.

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