

Texas Water Development Board



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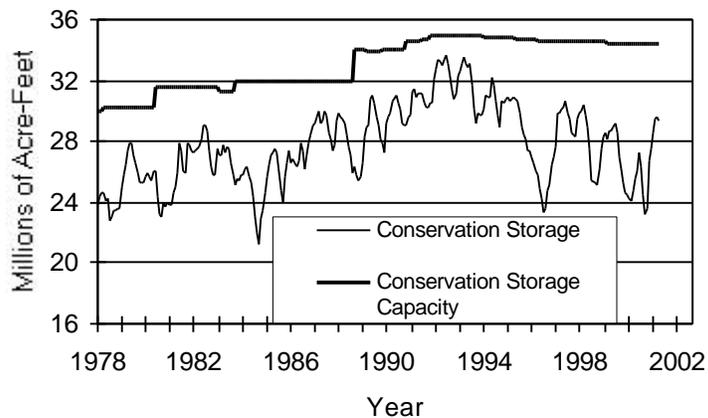
RESERVOIR STORAGE

April 2001

Near the end of April, the 77 reservoirs monitored for this report held 29.3 million acre-feet in conservation storage, or 85.0 percent of the conservation storage capacity of the State's major reservoirs. Statewide total storage remains just below normal for this time of year. Storage decreased by 0.36 million acre-feet (-1.1% of conservation storage capacity) during the month. Compared to April 2000, storage is up 3.75 million acre-feet (+10.9%). Statewide storage was declining slowly at the end of the month

For the month, storage declined in all regions except for the South Central (+0.4%). The North Central (95.6%), East (98.9%), South Central (99.1%), and Upper Coast (97.5%) regions remained near capacity, while the Trans-Pecos (20.0%), and Southern (23.9%) regions remained below 25%. Storage is at 100% in 36 reservoirs, 6 fewer than last month. Storage in the High Plains (-9.9%) and Trans-Pecos (-5.9%) regions is down relative to this time last year.

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.

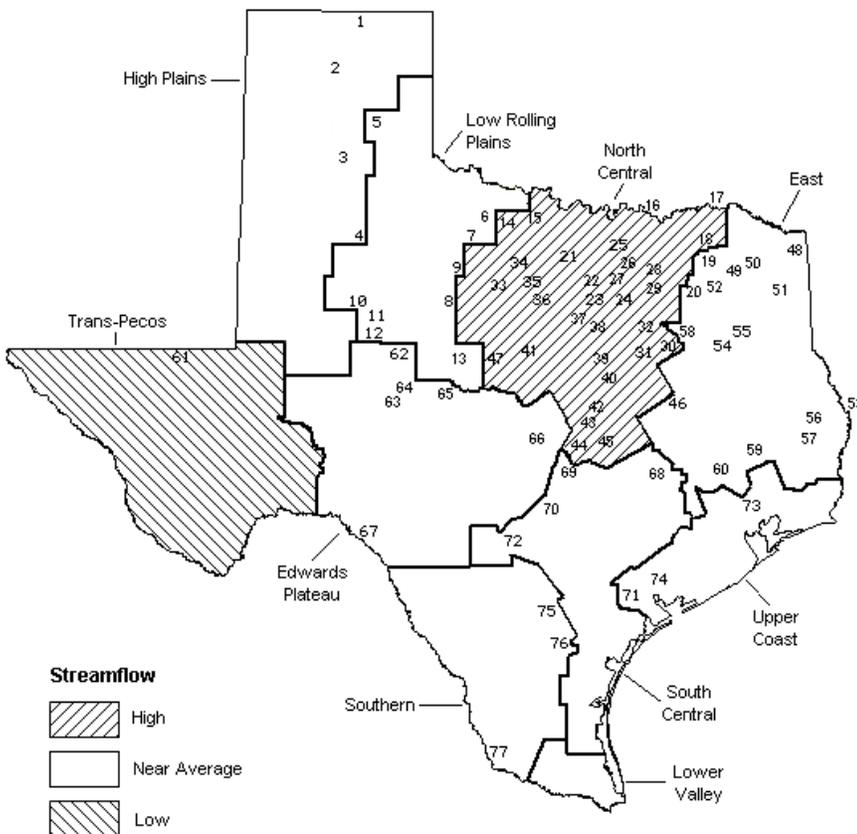
STREAMFLOW

Of 29 reporting index stations in April, computed 30-day mean flows were high (5% - 30% exceedance) at 12 stations, near normal (30% - 70% exceedance) at 14 stations, and low (70% - 95% exceedance) at 3 stations. In comparison to March, flows increased at 4 index stations and decreased at 25.

On a regional basis, flows in April were high in the North Central region, low the Trans-Pecos region, and normal in all other regions. During the month, low flows were reported at only the Pecos River near Girvin, Atascosa River at Whitsett, and Navidad River near Hallettsville.

APRIL 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		Change since Late March 2001 (acre-feet) (%)	Change since Late April 2000 (acre-feet) (%)		
		Storage Capacity (acre-feet)	Storage Late April 2001 (acre-feet) (%)				
HIGH PLAINS							
Palo Duro Reservoir	1	60,900	11,880	20	10 0	-3,150	-5
Lake Meredith (Texas)	2	500,000	346,400	69	-3,300 -1	-55,000	-11
Lake Meredith (Texas and Oklahoma)	(2)	779,560	346,400	44	-3,300 0	-55,000	-7
MacKenzie Reservoir	3	46,250	8,410	18	-160 0	-840	-2
White River Lake	4	31,850	11,350	36	-510 -2	-4,510	-14
TOTAL		639,000	378,040	59	-3,960 -1	-63,500	-10
LOW ROLLING PLAINS							
Greenbelt Reservoir	5	58,200	24,290	42	-260 0	-1,510	-3
Lake Kemp	6	319,600	192,800	60	1,900 1	20,700	6
Miller's Creek Reservoir	7	27,890	13,650	49	-460 -2	2,990	11
Fort Phantom Hill Reservoir	8	70,030	38,140	54	-1,970 -3	15,420	22
Lake Stamford	9	52,700	16,940	32	-980 -2	7,140	14
Lake J. B. Thomas	10	202,300	22,960	11	-1,880 -1	-6,060	-3
Lake Colorado City	11	30,800	20,920	68	300 1	-7,020	-23
Champion Creek Reservoir	12	41,600	2,910	7	-1,470 -4	-2,290	-6
Hords Creek Lake	13	8,600	4,450	52	-20 0	1,517	18
TOTAL		811,720	337,060	42	-4,840 -1	30,887	4
NORTH CENTRAL							
Lake Kickapoo	14	106,000	99,010	93	-1,290 -1	46,697	44
Lake Arrowhead	15	262,100	200,200	76	-3,000 -1	77,600	30
Lake Texoma	16	2,722,300	2,488,000	91	-100,000 -4	943	0
Pat Mayse Lake	17	124,500	124,500	100	0 0	6,330	5
Cooper Lake	18	273,000	273,000	100	0 0	536	0
Lake Sulphur Springs	19	17,710	17,710	100	0 0	0	0
Lake Tawakoni	20	936,200	936,200	100	0 0	180,800	19
Bridgeport Reservoir	21	374,830	374,830	100	30 0	165,141	44
Eagle Mountain Reservoir	22	178,380	178,000	100	-380 0	48,909	27
Benbrook Lake	23	88,200	87,300	99	-900 -1	7,982	9
Joe Pool Lake	24	175,800	175,800	100	0 0	16,845	10
Ray Roberts Lake	25	798,760	798,760	100	0 0	236,532	30
Lewisville Lake	26	555,000	555,000	100	0 0	207,450	37
Grapevine Lake	27	187,700	187,700	100	0 0	57,324	31
Lavon Lake	28	443,800	443,800	100	0 0	99,014	22
Lake Ray Hubbard	29	413,420	411,100	99	-2,000 0	-2,320	-1
Richland-Chambers Creek Lake	30	1,103,820	1,103,820	100	0 0	140,698	13
Navarro Mills Lake	31	55,810	55,810	100	0 0	6,884	12
Bardwell Lake	32	53,580	46,470	87	-7,110 -13	-7,110	-13
Hubbard Creek Reservoir	33	317,800	157,800	50	-2,000 -1	-27,300	-9
Lake Graham	34	45,000	44,860	100	-140 0	7,450	17
Possum Kingdom Lake	35	551,820	530,700	96	200 0	59,300	11
Lake Palo Pinto	36	27,650	26,640	96	-270 -1	72	0
Lake Granbury	37	135,680	130,300	96	2,200 2	13,400	10
Lake Pat Cleburne	38	25,300	25,300	100	0 0	9,995	40
Whitney Lake	39	622,800	622,800	100	0 0	194,400	31
Waco Lake	40	144,500	144,500	100	0 0	25,043	17
Proctor Lake	41	55,590	55,590	100	0 0	36,691	66
Belton Lake	42	434,500	434,500	100	0 0	55,394	13
Stillhouse Hollow Lake	43	226,060	226,060	100	0 0	7,152	3
Lake Georgetown	44	37,010	37,010	100	0 0	13,896	38
Granger Lake	45	54,280	54,280	100	0 0	69	0
Lake Limestone	46	215,750	211,500	98	-4,250 -2	35,200	16
Lake Brownwood	47	143,400	130,700	91	1,500 1	53,500	37
TOTAL		11,908,050	11,389,550	96	-117,410 -1	1,774,517	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 March 2001		Change since Late April 2000		
			Late April 2001 (acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)	(%)	
EAST									
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	252,000	100	0	0	0	0	
Lake Fork Reservoir	52	635,200	635,200	100	0	0	20,900	3	
Toledo Bend Reservoir	53	4,472,900	4,385,000	98	-87,900	-2	277,000	6	
Lake Palestine	54	411,300	411,300	100	0	0	16,100	4	
Lake Tyler	55	73,700	73,700	100	0	0	8,871	12	
Sam Rayburn Reservoir	56	2,876,300	2,876,300	100	0	0	758,300	26	
B. A. Steinhagen Lake	57	94,200	72,580	77	-1,390	-1	-5,534	-6	
Cedar Creek Reservoir	58	637,050	634,100	100	-2,950	0	88,682	14	
Lake Livingston	59	1,750,000	1,750,000	100	0	0	15,000	1	
Lake Conroe	60	429,900	413,500	96	-9,800	-2	42,800	10	
TOTAL		12,044,350	11,915,480	99	-102,040	-1	1,222,119	10	
TRANS-PECOS									
Red Bluff Reservoir	61	307,000	61,370	20	-13,350	-4	-18,000	-6	
TOTAL		307,000	61,370	20	-13,350	-4	-18,000	-6	
EDWARDS PLATEAU									
E. V. Spence Reservoir	62	488,760	79,460	16	-2,480	-1	-21,540	-4	
Twin Buttes Reservoir	63	177,800	11,930	7	1,910	1	6,897	4	
O.C. Fisher Lake	64	119,200	7,870	7	-1,130	-1	-5,566	-5	
O. H. Ivie Reservoir	65	554,340	313,700	57	-5,900	-1	22,000	4	
Lake Buchanan	66	896,980	847,900	95	9,000	1	240,297	27	
Amistad Reservoir (Texas)	67	1,771,030	1,123,000	63	-62,000	-4	25,000	1	
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	1,319,000	42	-61,000	-2	-50,000	-2	
TOTAL		4,008,110	2,383,860	59	-60,600	-2	267,088	7	
SOUTH CENTRAL									
Somerville Lake	68	155,060	155,060	100	0	0	34,404	22	
Lake Travis	69	1,144,100	1,144,100	100	0	0	375,767	33	
Canyon Lake	70	385,600	385,600	100	0	0	33,476	9	
Coleta Creek Reservoir	71	35,060	30,220	86	-1,360	-4	2,380	7	
Medina Lake	72	254,000	241,700	95	9,400	4	73,100	29	
TOTAL		1,973,820	1,956,680	99	8,040	0	519,127	26	
UPPER COAST									
Lake Houston	73	128,860	128,860	100	0	0	0	0	
Lake Texana	74	157,900	150,600	95	-6,600	-4	14,300	9	
TOTAL		286,760	279,460	97	-6,600	-2	14,300	5	

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

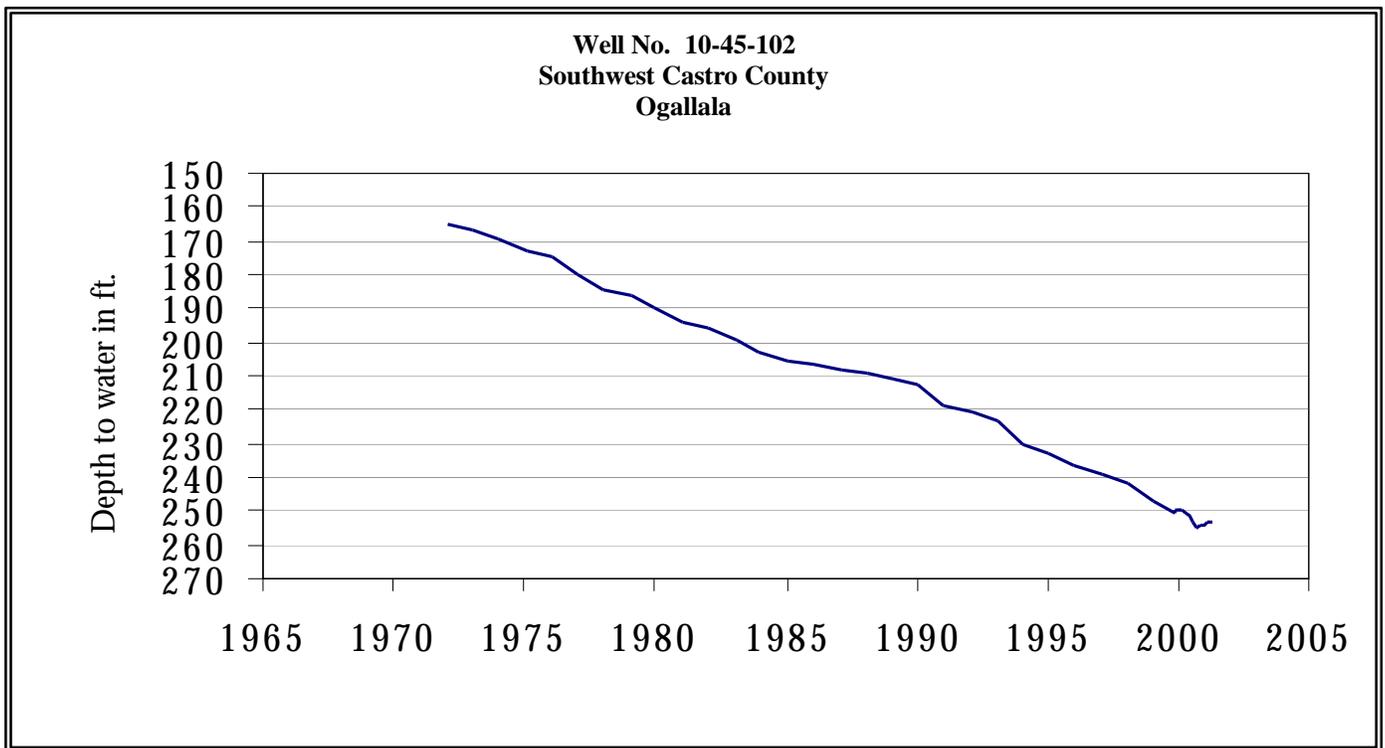
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late April 2001 (acre-feet) (%)	Change since Late March 2001 (acre-feet) (%)	Change since Late April 2000 (acre-feet) (%)
SOUTHERN					
Choke Canyon Reservoir	75	695,260	265,000 38	-5,000 -1	-12,000 -2
Lake Corpus Christi	76	241,240	94,750 39	-6,850 -3	-36,250 -15
Falcon Reservoir (Texas)	77	1,555,120	235,000 15	-50,000 -3	50,000 3
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	295,000 11	-35,000 -1	-18,000 -1
TOTAL		2,491,620	594,750 24	-61,850 -2	1,750 0
STATE TOTAL		34,470,430	29,296,250 85	-362,610 -1	3,748,288 11

Note:

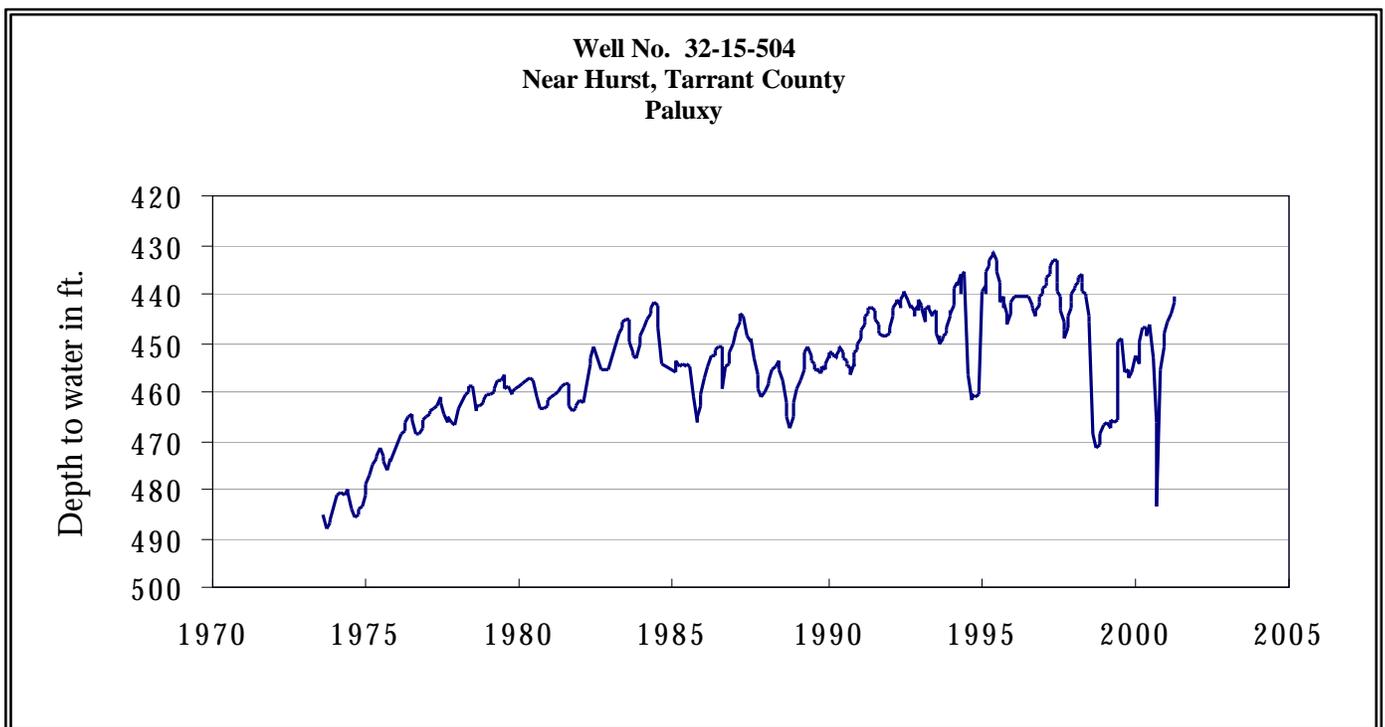
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included 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). Figures in parentheses for Lake Meredith represent the total conservation storage excluding 58,014 acre-feet of dead storage and are not included in State total. Preliminary figures are shown for the United States' share of conservation storage in International Amistad and International Falcon Reservoirs; the estimates may be subject to revision on completion of international water accounting. Texas (United States' share) and Mexico and are not included in State total.

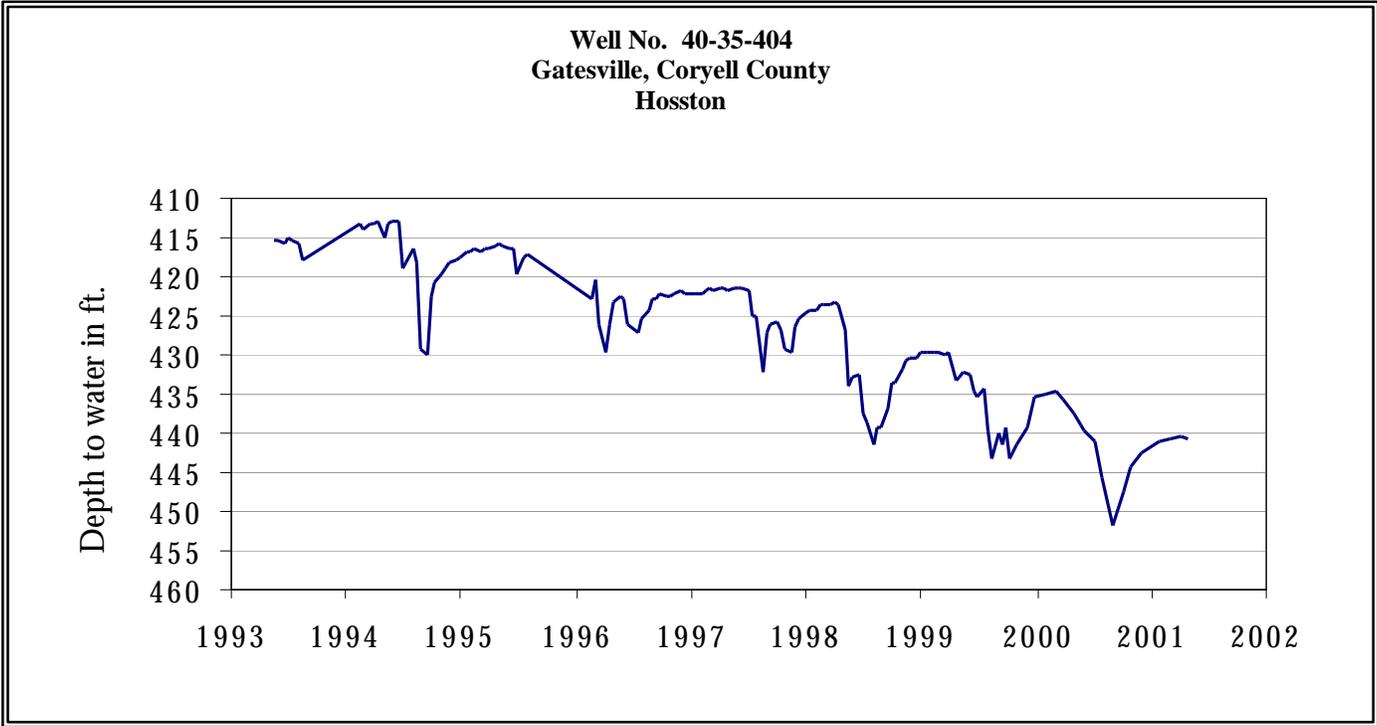
APRIL GROUND WATER LEVELS IN OBSERVATION WELLS



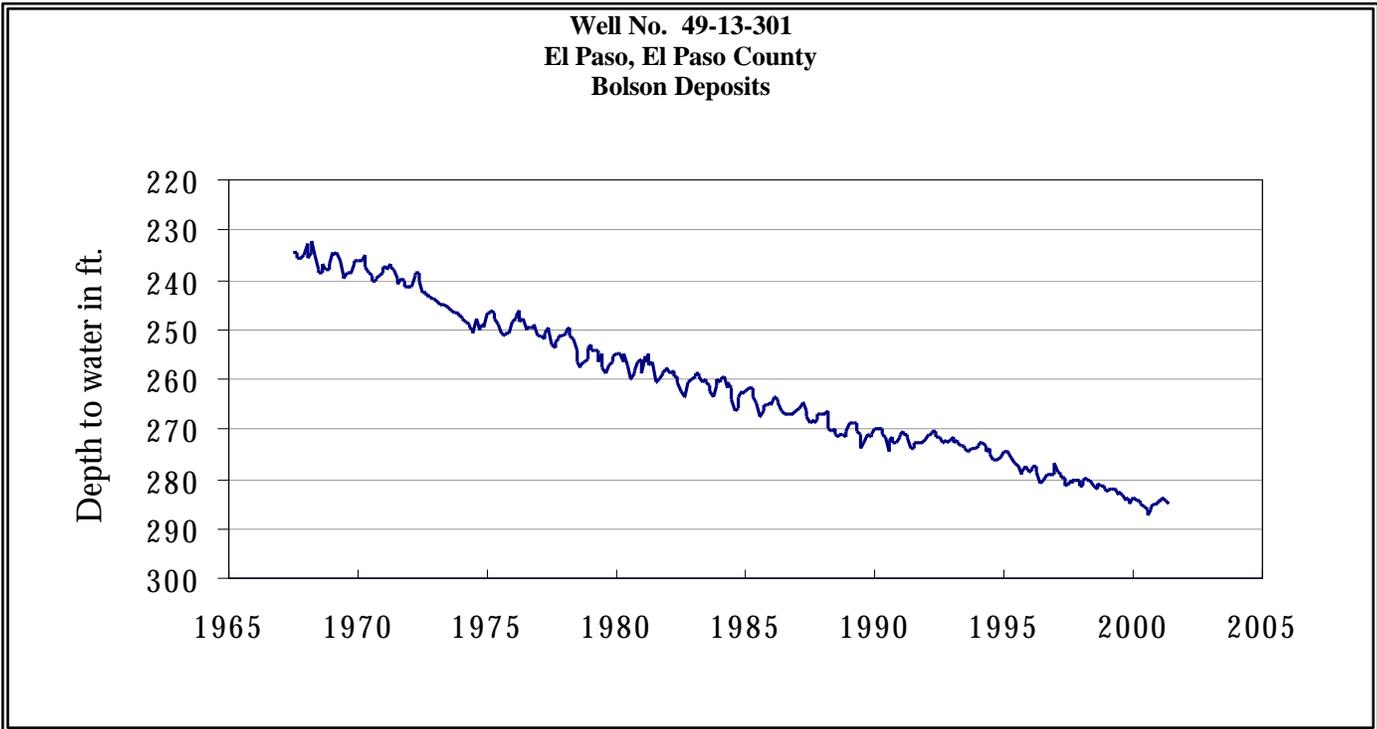
The late April water-level measurement in this Ogallala aquifer well, elevation 3,816 feet above sea level, was 253.47 feet below land surface. This measurement was 0.14 feet below last month's measurement, 2.89 feet below last year's measurement, and 97.47 feet below the initial measurement recorded in 1968.



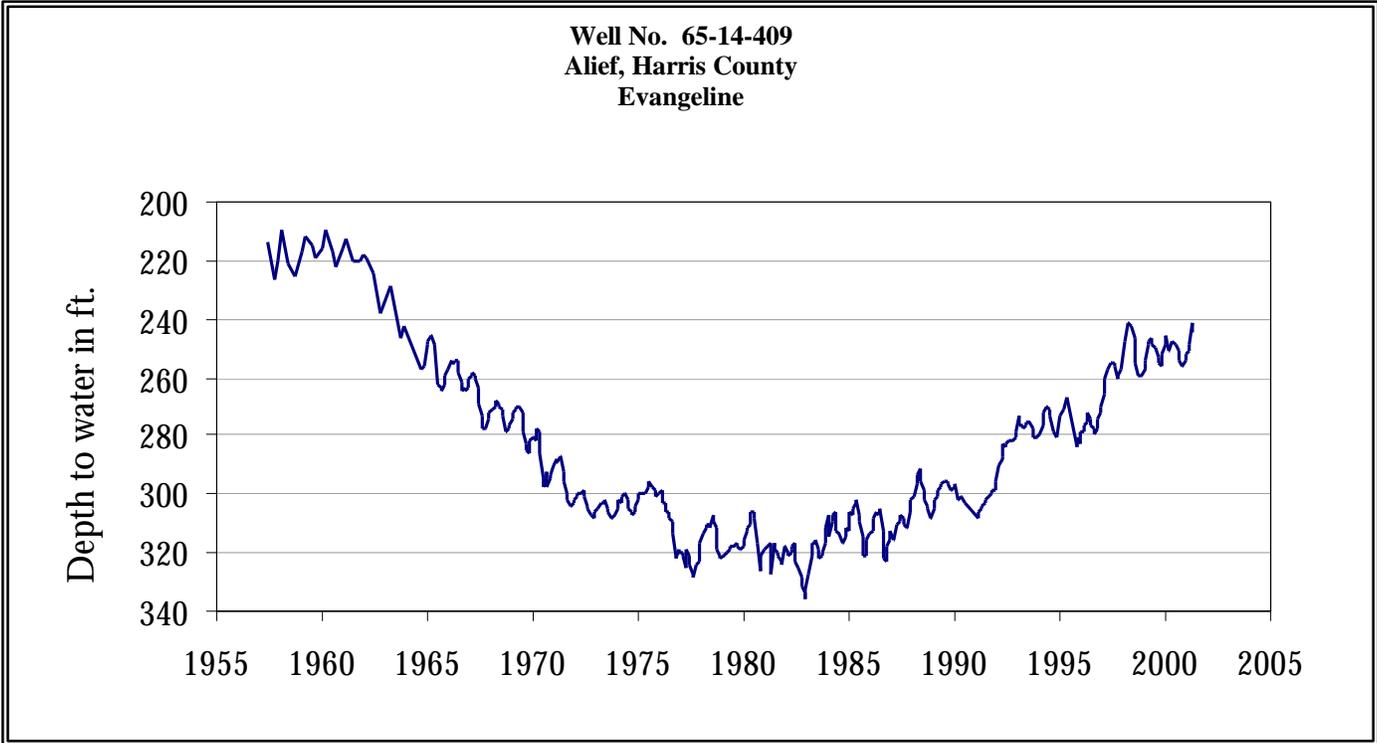
The late April water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 440.61 feet below land surface. This measurement was 1.15 feet above last month's measurement, 6.44 feet above last year's measurement, and 47.22 feet below the initial measurement recorded in 1953.



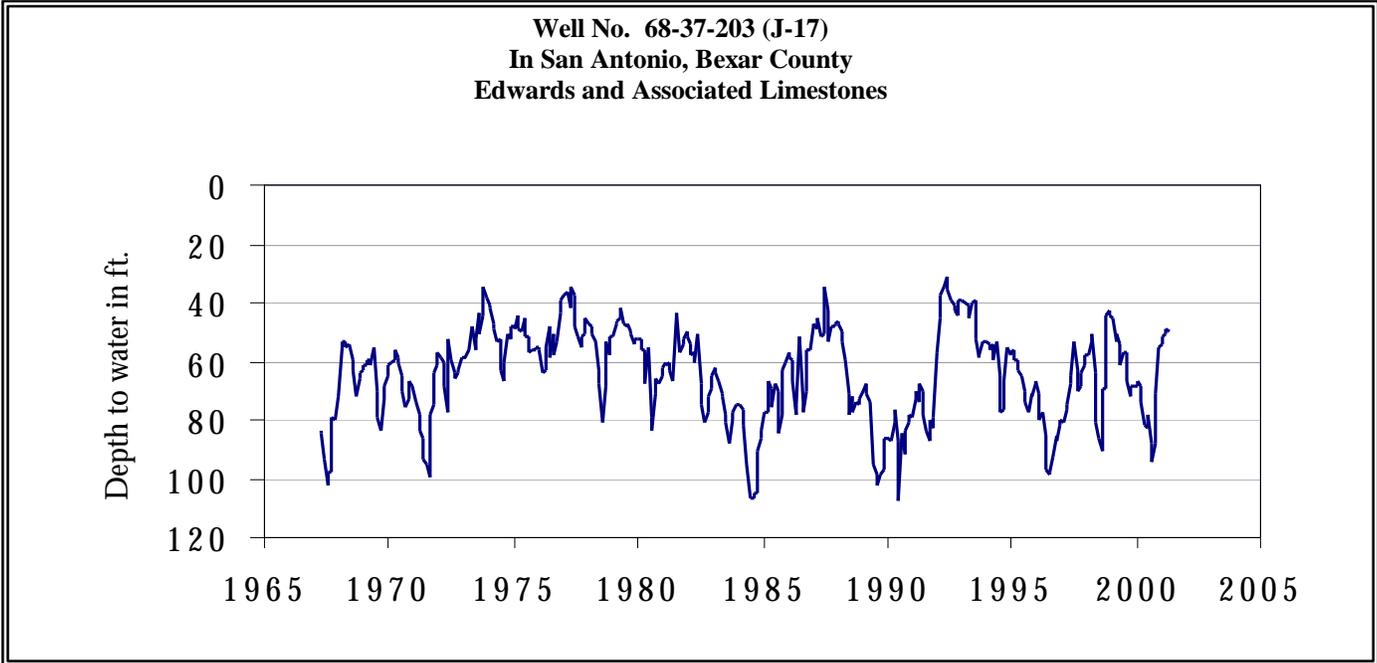
The late April water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 440.86 feet below land surface. This measurement was 0.66 feet below last month's measurement, 3.47 feet below last year's measurement, and 148.86 feet below the initial measurement recorded in 1955.



The late April water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 284.64 feet below land surface. This was 0.21 feet below last month's measurement, 0.20 feet above last year's measurement, and 52.74 feet below the initial measurement recorded in 1964.

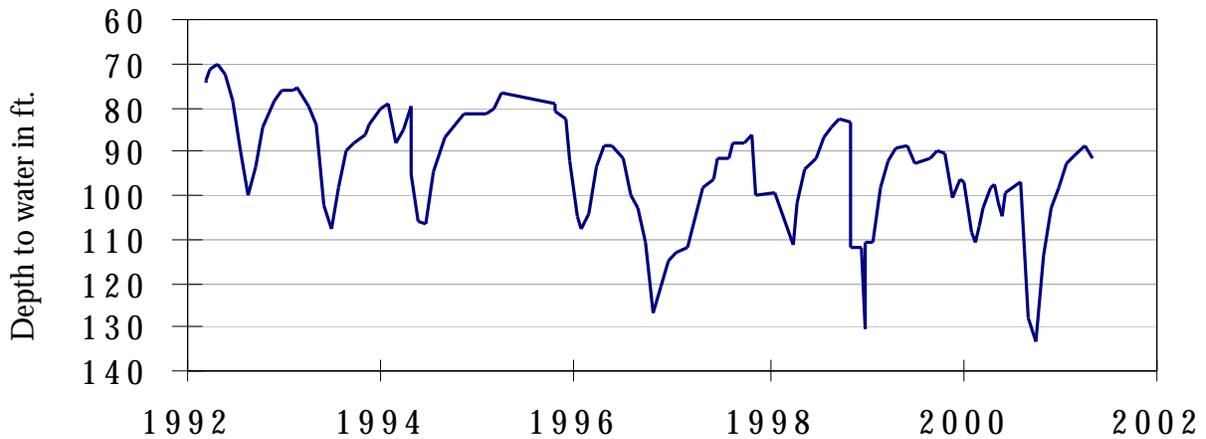


The late April water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 244.62 feet below land surface. This was 2.94 feet below last month's measurement, 6.47 feet above last year's measurement, and 141.39 feet below the initial measurement recorded in 1947.



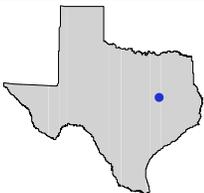
The late April water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 49.71 feet below land surface. This was 0.52 feet below last month's measurement, 32.06 feet above last year's measurement, and 9.91 feet above the initial measurement recorded in 1962.

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



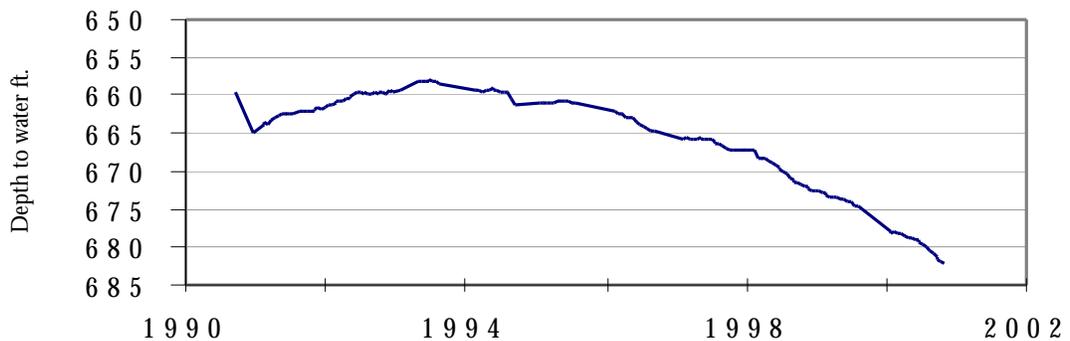
The late April water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 91.60 feet below land surface. This measurement was 2.90 feet below last month's measurement, 12.89 feet above last year's measurement, and 10.35 feet below the initial measurement recorded in 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 4026201
Coryell County**



This 908 ft. deep recorder well, located approximately 13 miles north of Gatesville, at an elevation of 1,152 feet above sea level, was completed in the Travis Peak aquifer. The water levels reflect the aquifer's drawdown due to increased regional groundwater demands and lack of adequate recharge due to drought conditions within the area.

