

Texas Water Development Board



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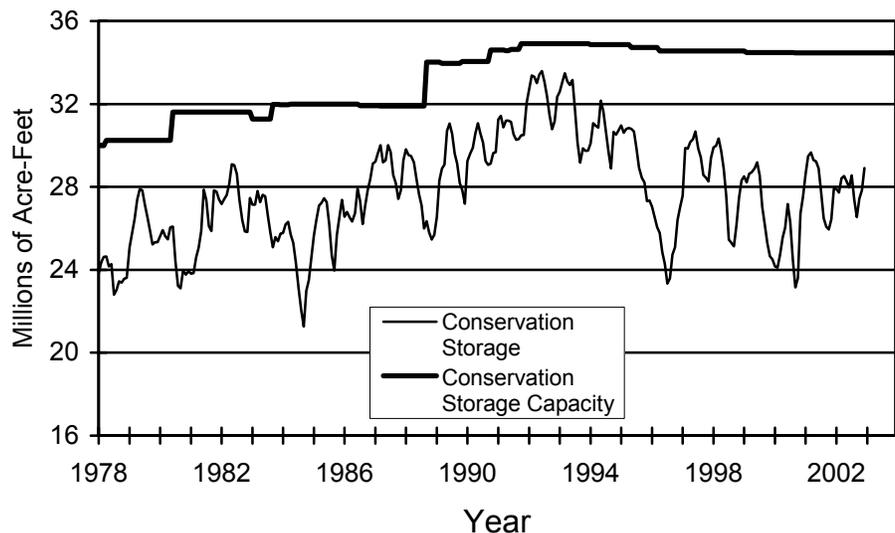
RESERVOIR STORAGE

December 2002

Near the end of December, the 77 reservoirs monitored for this report held 28.91 million acre-feet in conservation storage, or 83.9 percent of the conservation storage capacity of the State's major reservoirs. Statewide total storage is above median for this time of year for the first time in a long time. Storage increased for the month, up 1.06 million acre-feet (+3.1%). Compared to last year at this time, storage is up 0.98 million acre-feet (+2.8%).

Storage in the East (97%), Upper Coast (100%) and South Central (100%) Regions are at or near capacity, while the High Plains (34%), Low Rolling Plains (50%), Trans-Pecos (18%), Edwards Plateau (48%) and Southern (52%) Regions all remained low. The North Central (93%) Region remained fairly high. Storage is at 100% in 31 reservoirs, up 14 from last month. Twin Buttes Reservoir and O.C. Fisher Lake appear not to have benefited from the rains seen throughout the rest of the state, remaining at 3%. Falcon Reservoir experienced a modest increase since last year, up 9% to 27% (total for Texas and Mexico).

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.

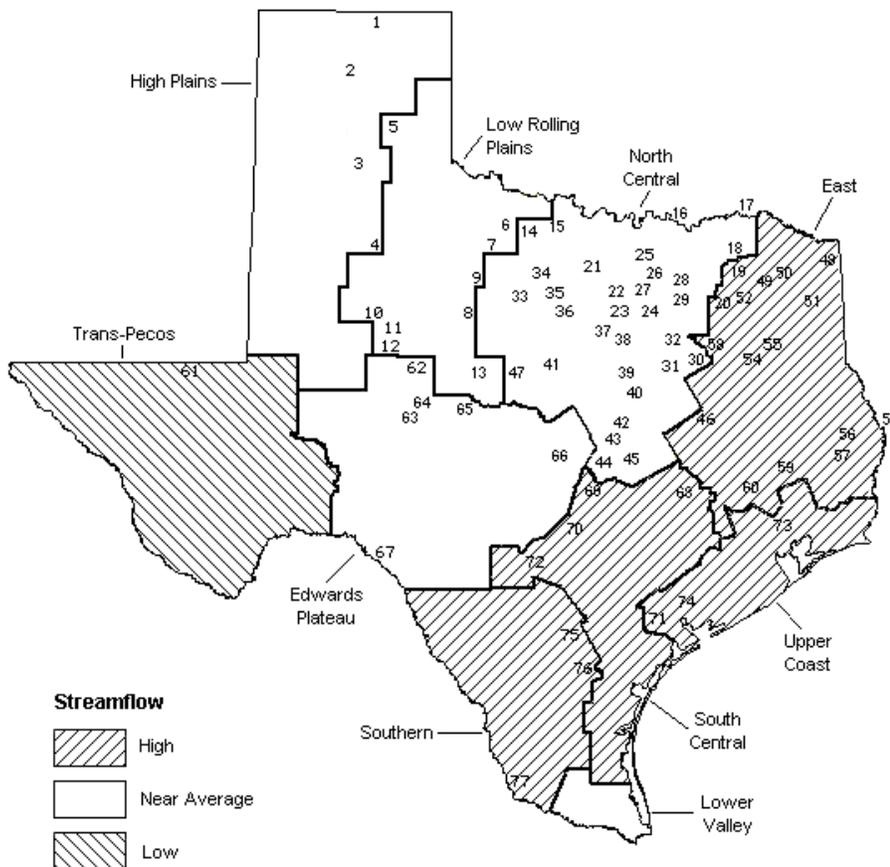
STREAMFLOW

Of 29 reporting index stations in December, computed 30-day mean flows were very high (0% - 5% exceedance) at 4 stations, high (5% - 30% exceedance) at 9 stations, near normal (30% - 70% exceedance) at 14 stations, and low (70% - 95% exceedance) at 2 stations. Compared to November, flows increased at 13 index stations and decreased at 16.

On a regional basis, flows in December were normal in the High Plains, Low Rolling Plains, North Central and Edwards Plateau Regions. Flows were high in the East Texas, Upper Coast and Southern Regions, very high in the South Central region and low in the Trans Pecos Region.

DECEMBER 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 Mayse 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 | |

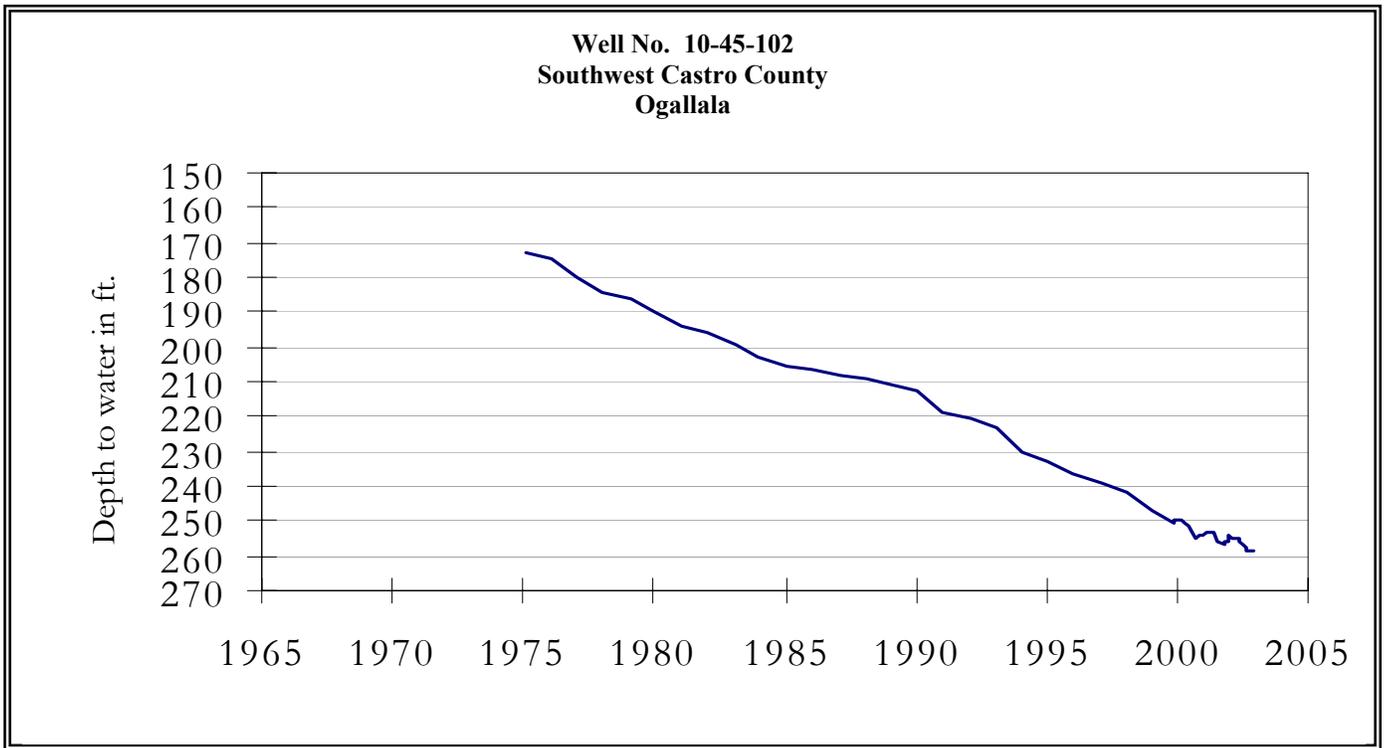
CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late December 2002 (acre-feet) (%)	Change since Late November 2002 (acre-feet) (%)	Change since Late December 2001 (acre-feet) (%)
HIGH PLAINS					
Palo Duro Reservoir	1	60,900	3,520 6	-90 0	-2,650 -4
Lake Meredith (Texas)	2	500,000	197,580 40	-1,870 0	-59,020 -12
Lake Meredith (Texas and Oklahoma)	(2)	779,560	197,580 25	-1,870 0	-59,020 -8
MacKenzie Reservoir	3	46,250	8,050 17	-80 0	-510 -1
White River Lake	4	31,850	6,090 19	440 1	-1,610 -5
TOTAL		639,000	215,240 34	-1,600 0	-63,790 -10
LOW ROLLING PLAINS					
Greenbelt Reservoir	5	58,200	23,410 40	370 1	-710 -1
Lake Kemp	6	319,600	241,120 75	13,420 4	105,420 33
Miller's Creek Reservoir	7	27,890	15,290 55	10 0	2,450 9
Fort Phantom Hill Reservoir	8	70,030	44,000 63	-930 -1	13,220 19
Lake Stamford	9	52,700	40,390 77	80 0	24,120 46
Lake J. B. Thomas	10	202,300	21,040 10	-140 0	-180 0
Lake Colorado City	11	30,800	16,650 54	-10 0	-2,550 -8
Champion Creek Reservoir	12	41,600	2,290 6	20 0	110 0
Hords Creek Lake	13	8,600	2,490 29	-60 -1	-660 -8
TOTAL		811,720	406,680 50	12,760 2	141,220 17
NORTH CENTRAL					
Lake Kickapoo	14	106,000	82,110 77	510 0	10,210 10
Lake Arrowhead	15	262,100	154,250 59	780 0	-150 0
Lake Texoma	16	2,722,300	2,667,640 98	46,630 2	49,640 2
Pat Mayse Lake	17	124,500	124,500 100	6,220 5	0 0
Cooper Lake	18	273,000	273,000 100	0 0	0 0
Lake Sulphur Springs	19	17,710	17,530 99	60 0	4,020 23
Lake Tawakoni	20	936,200	907,500 97	33,800 4	-11,700 -1
Bridgeport Reservoir	21	374,830	279,900 75	2,500 1	-9,600 -3
Eagle Mountain Reservoir	22	178,380	146,000 82	5,000 3	-200 0
Benbrook Lake	23	88,200	82,360 93	4,550 5	12,330 14
Joe Pool Lake	24	175,800	175,800 100	740 0	0 0
Ray Roberts Lake	25	798,760	798,760 100	16,430 2	44,060 6
Lewisville Lake	26	555,000	555,000 100	0 0	46,000 8
Grapevine Lake	27	187,700	173,190 92	10,130 5	29,990 16
Lavon Lake	28	443,800	405,320 91	24,490 6	68,020 15
Lake Ray Hubbard	29	413,420	413,420 100	13,820 3	0 0
Richland-Chambers Creek Lake	30	1,103,820	1,103,820 100	73,820 7	0 0
Navarro Mills Lake	31	55,810	55,810 100	3,690 7	0 0
Bardwell Lake	32	53,580	49,160 92	7,680 14	-4,420 -8
Hubbard Creek Reservoir	33	317,800	151,800 48	700 0	32,600 10
Lake Graham	34	45,000	29,830 66	-110 0	-4,130 -9
Possum Kingdom Lake	35	551,820	484,400 88	1,200 0	18,200 3
Lake Palo Pinto	36	27,650	22,920 83	70 0	7,230 26
Lake Granbury	37	135,680	133,100 98	2,400 2	18,000 13
Lake Pat Cleburne	38	25,300	20,780 82	600 2	350 1
Whitney Lake	39	622,800	462,920 74	-2,850 0	-8,680 -1
Waco Lake	40	144,500	144,500 100	4,220 3	0 0
Proctor Lake	41	55,590	55,590 100	140 0	18,710 34
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	0 0
Granger Lake	45	54,280	54,280 100	0 0	0 0
Lake Limestone	46	215,750	215,750 100	0 0	1,950 1
Lake Brownwood	47	143,400	132,890 93	1,110 1	23,890 17
TOTAL		11,908,050	11,071,400 93	258,330 2	346,320 3

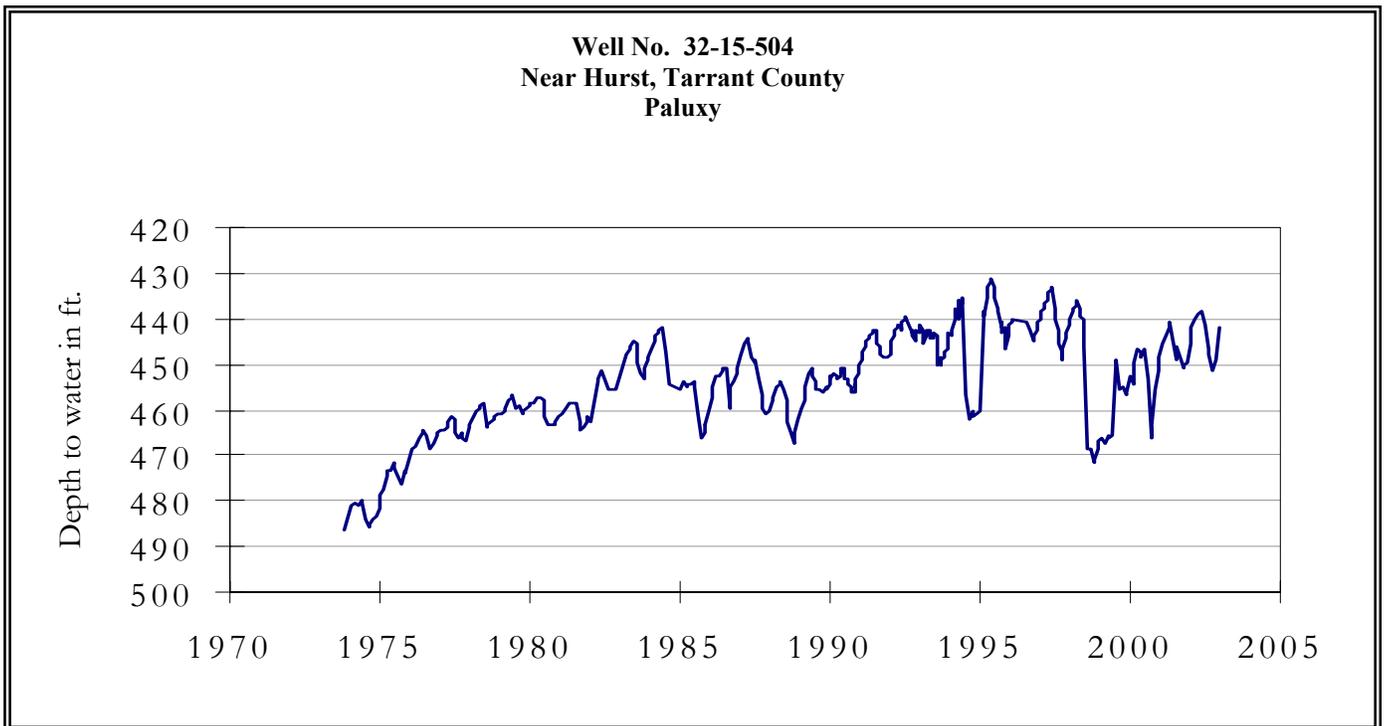
CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late December 2002 (acre-feet) (%)	Change since Late November 2002 (acre-feet) (%)	Change since Late December 2001 (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	1,700 1	0 0
Lake O' the Pines	51	252,000	233,070 92	-10,510 -4	-18,930 -8
Lake Fork Reservoir	52	635,200	635,200 100	0 0	0 0
Toledo Bend Reservoir	53	4,472,900	4,149,000 93	356,000 8	-23,000 -1
Lake Palestine	54	411,300	404,020 98	31,300 8	-7,280 -2
Lake Tyler	55	73,700	73,700 100	0 0	0 0
Sam Rayburn Reservoir	56	2,876,300	2,876,300 100	315,520 11	0 0
B. A. Steinhagen Lake	57	94,200	84,520 90	390 0	51,350 55
Cedar Creek Reservoir	58	637,050	637,050 100	32,750 5	150 0
Lake Livingston	59	1,750,000	1,750,000 100	10,000 1	0 0
Lake Conroe	60	429,900	421,300 98	5,300 1	3,300 1
TOTAL		12,044,350	11,675,960 97	742,450 6	5,590 0
TRANS-PECOS					
Red Bluff Reservoir	61	307,000	56,490 18	10,370 3	18,540 6
TOTAL		307,000	56,490 18	10,370 3	18,540 6
EDWARDS PLATEAU					
E. V. Spence Reservoir	62	488,760	42,540 9	-1,450 0	-18,290 -4
Twin Buttes Reservoir	63	177,800	5,230 3	-770 0	-2,620 -1
O.C. Fisher Lake	64	119,200	3,430 3	-40 0	-1,050 -1
O. H. Ivie Reservoir	65	554,340	214,100 39	-1,900 0	-42,000 -8
Lake Buchanan	66	896,980	883,870 99	8,870 1	115,470 13
Amistad Reservoir (Texas)	67	1,771,030	785,000 44	21,000 1	8,000 0
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	1,033,000 33	46,000 1	84,000 3
TOTAL		4,008,110	1,934,170 48	25,710 1	59,510 1
SOUTH CENTRAL					
Somerville Lake	68	155,060	155,060 100	0 0	0 0
Lake Travis	69	1,144,100	1,144,100 100	8,300 1	0 0
Canyon Lake	70	385,600	385,240 100	4,740 1	-360 0
Coleta Creek Reservoir	71	35,060	31,980 91	50 0	130 0
Medina Lake	72	254,000	254,000 100	0 0	0 0
TOTAL		1,973,820	1,970,380 100	13,090 1	-230 0
UPPER COAST					
Lake Houston	73	128,860	128,860 100	0 0	0 0
Lake Texana	74	157,900	157,900 100	1,240 1	0 0
TOTAL		286,760	286,760 100	1,240 0	0 0

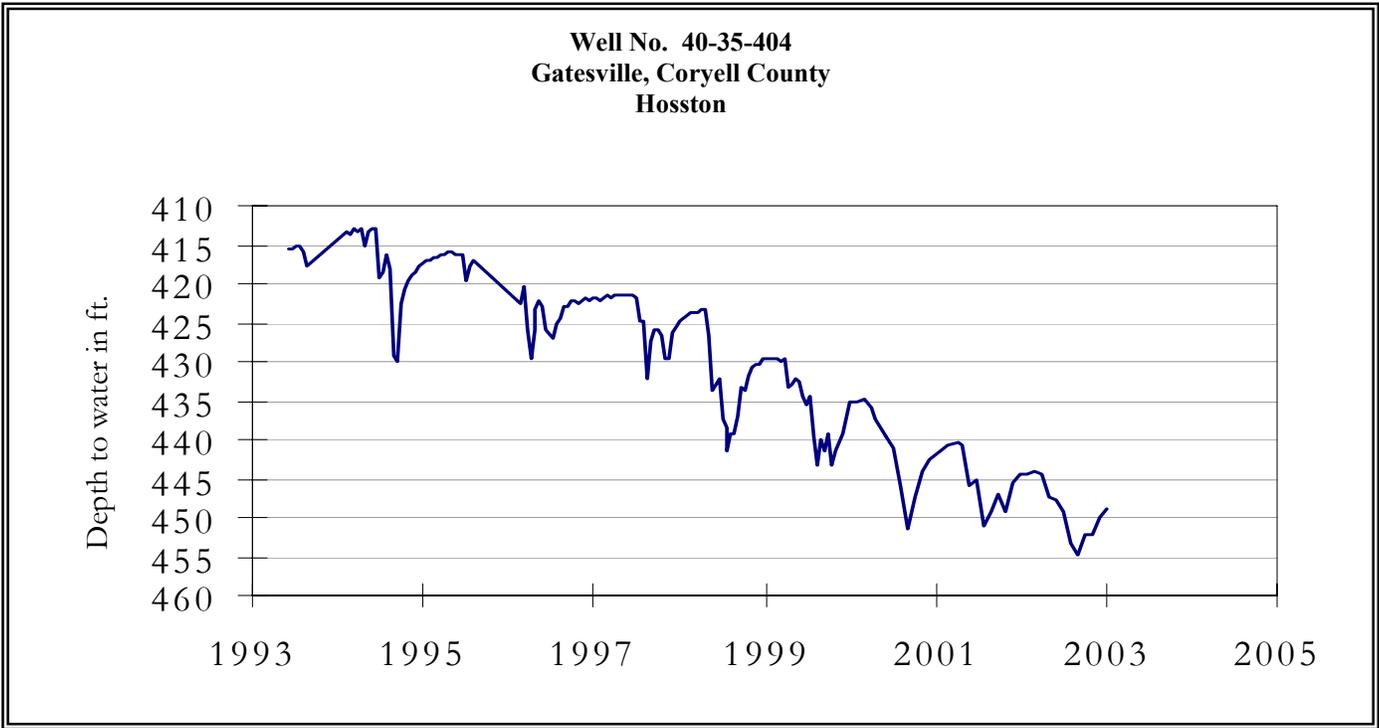
DECEMBER GROUND WATER LEVELS IN OBSERVATION WELLS



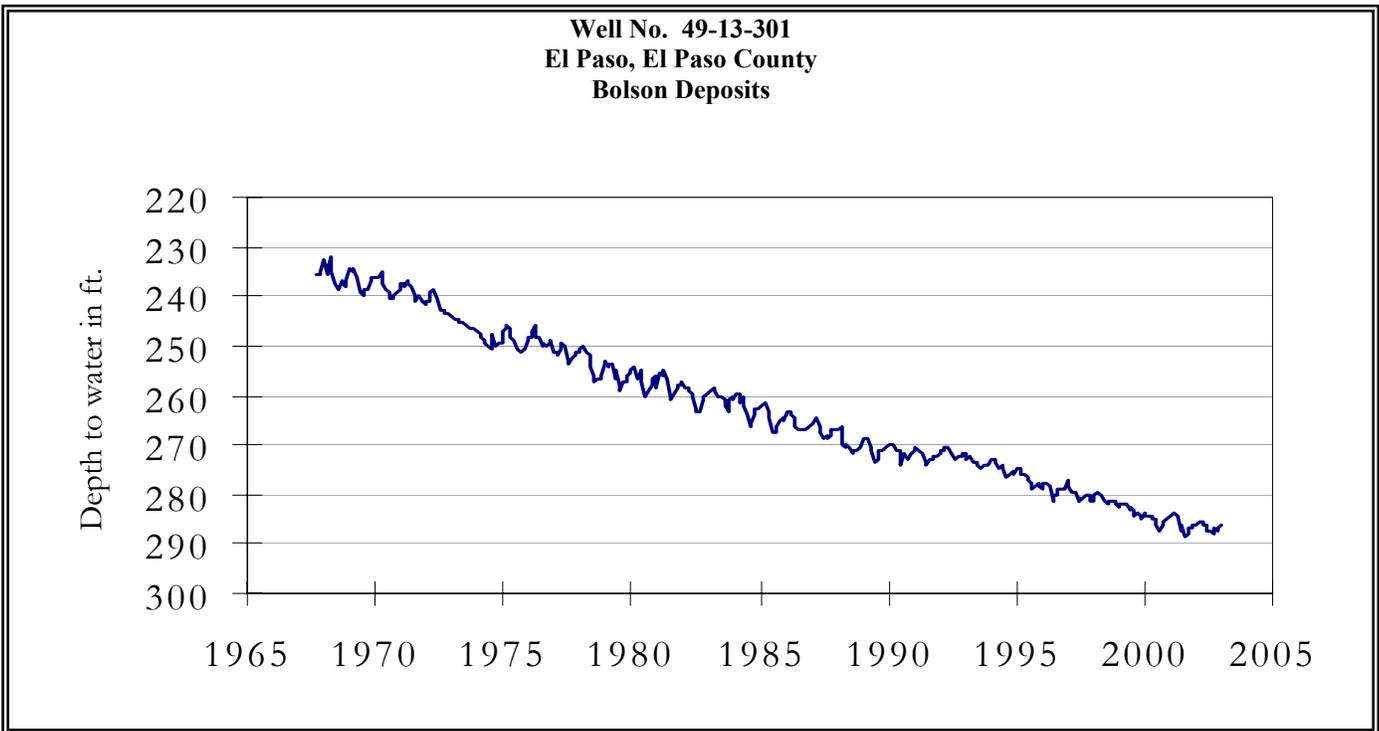
The late December water-level measurement in this Ogallala aquifer well, elevation 3,816 feet above sea level, was 258.26 feet below land surface. This measurement was 0.08 feet above last month's measurement, 2.96 feet below last year's measurement, and 102.26 feet below the initial measurement recorded in 1968.



The late December water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 441.86 feet below land surface. This measurement was 2.24 feet above last month's measurement, 3.51 feet above last year's measurement, and 48.47 feet below the initial measurement recorded in 1953.

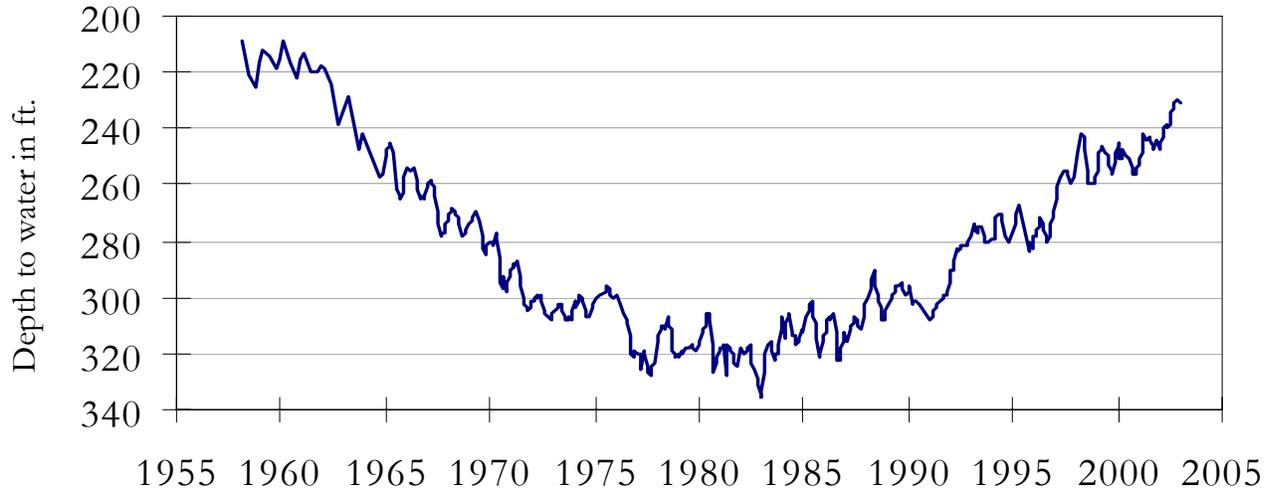


The late December water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 448.92 feet below land surface. This measurement was 0.90 feet above last month's measurement, 4.51 feet below last year's measurement, and 156.92 feet below the initial measurement recorded in 1955.



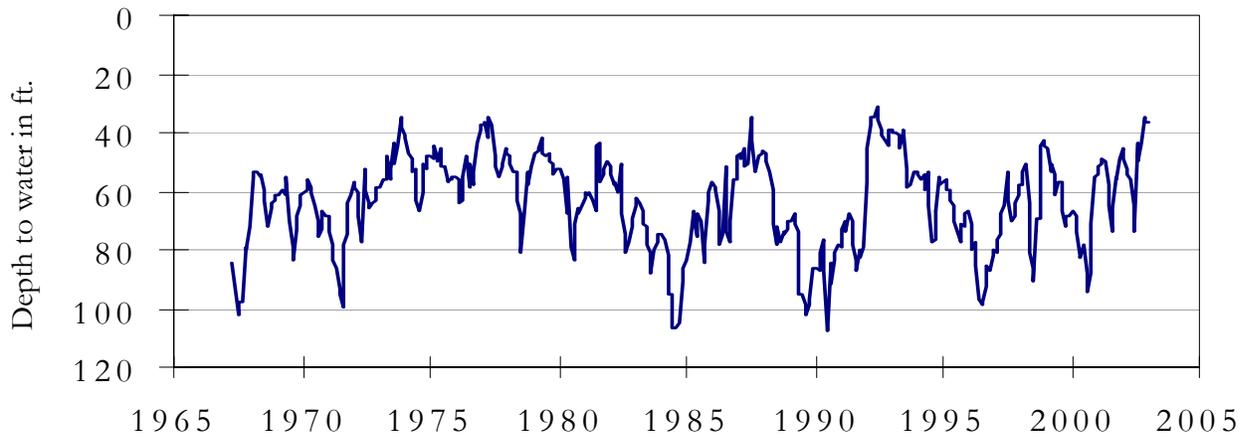
The late December water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 286.04 feet below land surface. This was 0.70 feet above last month's measurement, 0.31 feet above last year's measurement, and 54.14 feet below the initial measurement recorded in 1964.

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



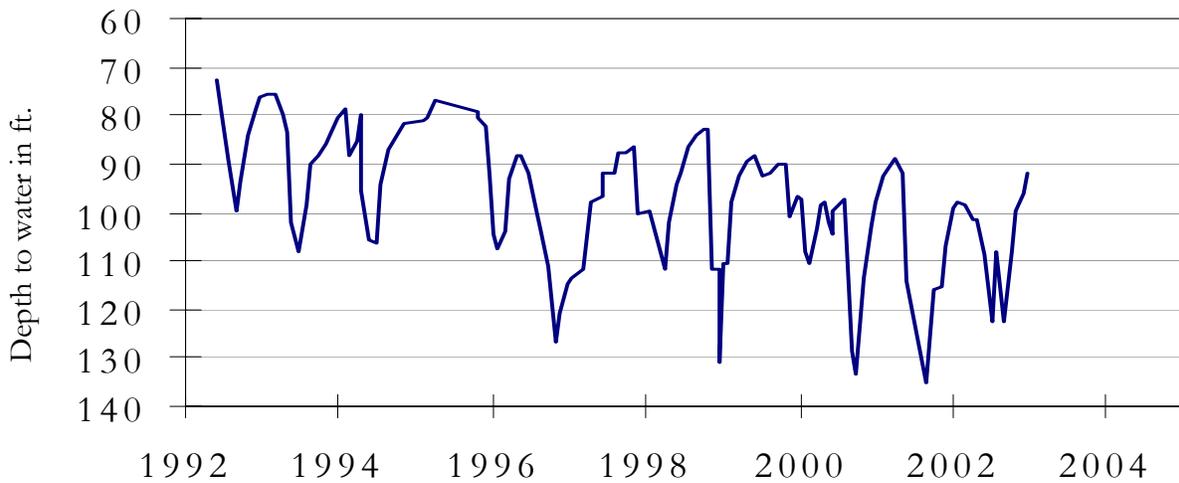
The late December water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 230.71 feet below land surface. This was 1.26 feet below last month's measurement, 16.16 feet above last year's measurement, and 127.48 feet below the initial measurement recorded in 1947.

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



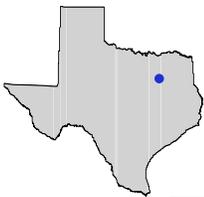
The late December water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 36.16 feet below land surface. This was 0.15 feet above last month's measurement, 9.44 feet above last year's measurement, and 23.46 feet above the initial measurement recorded in 1962.

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



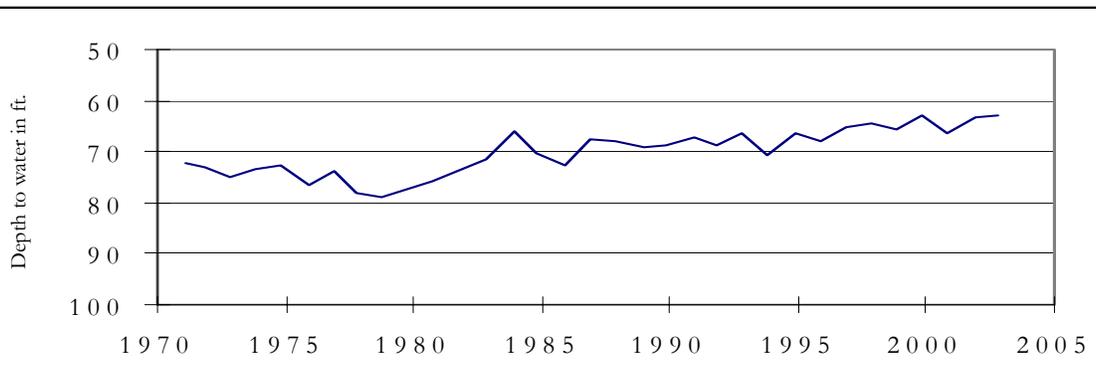
The late December water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 91.77 feet below land surface. This measurement was 4.27 feet above last month's measurement, 7.43 feet above last year's measurement, and 10.52 feet below the initial measurement recorded 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. 3361702
Navarro County**



This 241 ft. deep domestic well, located approximately 5 miles South of the City of Corsicana, at an elevation of 451 feet above sea level, was completed in the Nacatoch aquifer. Currently, aquifer pumpage is relatively equal to total annual recharge. Greater local use of surface water and management practices have reduced or stabilized aquifer water-level declines

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