

Texas Water Development Board



Water **Conditions**

RESERVOIR STORAGE

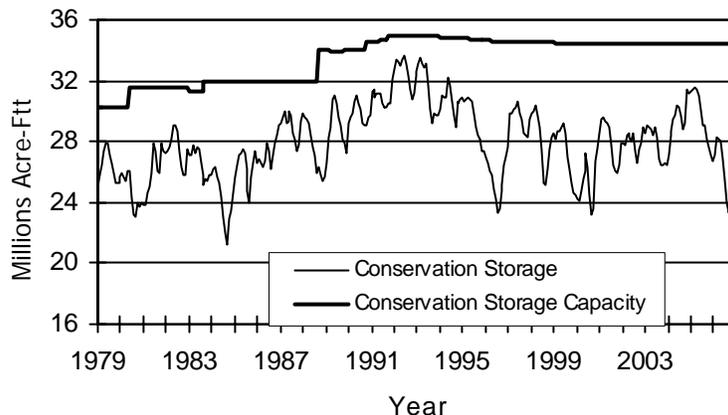
December 2006

Near the end of December, the 77 reservoirs monitored for this report held 25.28 million acre-feet in conservation storage, or 73 percent of the conservation storage capacity of the state's major reservoirs. Storage increased during the month by 0.7 million acre-feet (2% of conservation storage capacity). Compared to last year, storage decreased by 1.5 million acre-feet (-4%).

Storage was at 94% of capacity in the Upper Coast Region but below 90% in all other Regions, with the lowest in the High Plains Region (19%). Storage was at 100% in 6 reservoirs and Texas' share of Amistad is at 105%. During December, storage increased in 37 reservoirs, decreased in 35 reservoirs, and remained unchanged in 5 reservoirs. Regionally, storage increased in 5 regions and decreased in 4 regions. Compared to this time last year, storage decreased in all except the East Region where storage increased by 12%. The sharpest decrease was in the Edwards Plateau Region where storage decreased by 22%.

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.



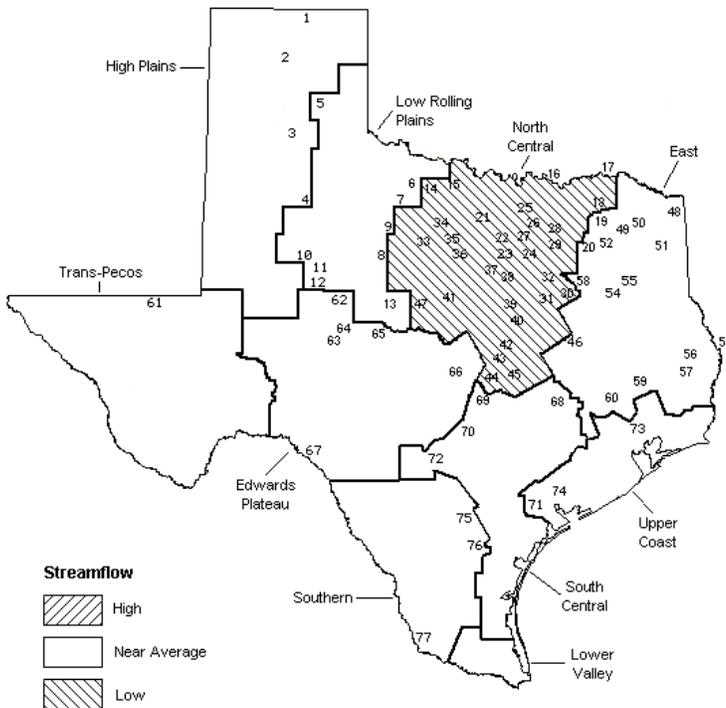
STREAMFLOW

Of 29 reporting index stations in December, computed 30-day mean flows were high (5% - 30%) at 2 stations, low (70% - 95%) at 12 stations, very low (>95%) at 1 station, and near normal (30% - 70% exceedance) at the remaining 14 stations. Compared to November, flows have increased at 18 index stations, decreased at 6 stations, and remained unchanged at 5 stations.

On a regional basis, flows in December were low in the North Central Region and normal in all other Regions. Streamflow in the Lower Valley Region is not monitored.

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. Grapeville 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 Dec. 2006 (acre-feet) (%)	Change since Late November 2006 (acre-feet) (%)	Change since Late December 2005 (acre-feet) (%)
HIGH PLAINS					
Palo Duro Reservoir	1	60,900	730	1	-40 0
Lake Meredith (Texas)	2	500,000	106,450	21	520 0
Lake Meredith (Texas and Oklahoma)	(2)	779,560	106,450	14	520 0
MacKenzie Reservoir	3	46,250	8,750	19	0 0
White River Lake	4	31,850	4,390	14	-50 0
TOTAL		639,000	120,320	19	430 0
LOW ROLLING PLAINS					
Greenbelt Reservoir	5	58,200	18,550	32	590 1
Lake Kemp	6	319,600	219,550	69	3,600 1
Miller's Creek Reservoir	7	27,890	20,700	74	-200 -1
Fort Phantom Hill Reservoir	8	70,030	37,120	53	-1,480 -2
Lake Stamford	9	52,700	33,040	63	-840 -2
Lake J. B. Thomas	10	202,300	30,820	15	-1,550 -1
Lake Colorado City	11	30,800	23,630	77	-20 0
Champion Creek Reservoir	12	41,600	5,150	12	0 0
Hords Creek Lake	13	8,600	4,610	54	-110 -1
TOTAL		811,720	393,170	48	-10 0
NORTH CENTRAL					
Lake Kickapoo	14	106,000	69,240	65	-930 -1
Lake Arrowhead	15	262,100	169,020	64	-7,530 -3
Lake Texoma	16	2,722,300	2,381,850	87	8,590 0
Pat Mayse Lake	17	124,500	91,400	73	11,800 9
Cooper Lake	18	273,000	96,500	35	12,050 4
Lake Sulphur Springs	19	17,710	16,430	93	2,490 14
Lake Tawakoni	20	936,200	509,600	54	6,500 1
Bridgeport Reservoir	21	374,830	189,800	51	-1,000 0
Eagle Mountain Reservoir	22	178,380	113,400	64	-100 0
Benbrook Lake	23	88,200	65,960	75	7,860 9
Joe Pool Lake	24	175,800	167,000	95	3,170 2
Ray Roberts Lake	25	798,760	593,760	74	3,040 0
Lewisville Lake	26	555,000	423,790	76	29,610 5
Grapevine Lake	27	187,700	105,480	56	3,340 2
Lavon Lake	28	443,800	185,040	42	7,010 2
Lake Ray Hubbard	29	413,420	343,000	83	10,900 3
Richland-Chambers Creek Lake	30	1,103,820	732,400	66	5,700 1
Navarro Mills Lake	31	55,810	23,480	42	-50 0
Bardwell Lake	32	53,580	40,250	75	1,490 3
Hubbard Creek Reservoir	33	317,800	152,830	48	-1,370 0
Lake Graham	34	45,000	34,220	76	-450 -1
Possum Kingdom Lake	35	551,820	510,740	93	1,160 0
Lake Palo Pinto	36	27,650	12,650	46	-320 -1
Lake Granbury	37	135,680	127,270	94	3,120 2
Lake Pat Cleburne	38	25,300	25,300	100	2,940 12
Whitney Lake	39	622,800	442,640	71	-1,660 0
Waco Lake	40	144,500	116,110	80	-1,880 -1
Proctor Lake	41	55,590	25,560	46	-450 -1
Belton Lake	42	434,500	348,810	80	-2,800 -1
Stillhouse Hollow Lake	43	226,060	205,550	91	-590 0
Lake Georgetown	44	37,010	16,090	43	270 1
Granger Lake	45	54,280	52,000	96	3,950 7
Lake Limestone	46	215,750	193,210	90	14,490 7
Lake Brownwood	47	143,400	93,280	65	-1,860 -1
TOTAL		11,908,050	8,673,660	73	118,490 1

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

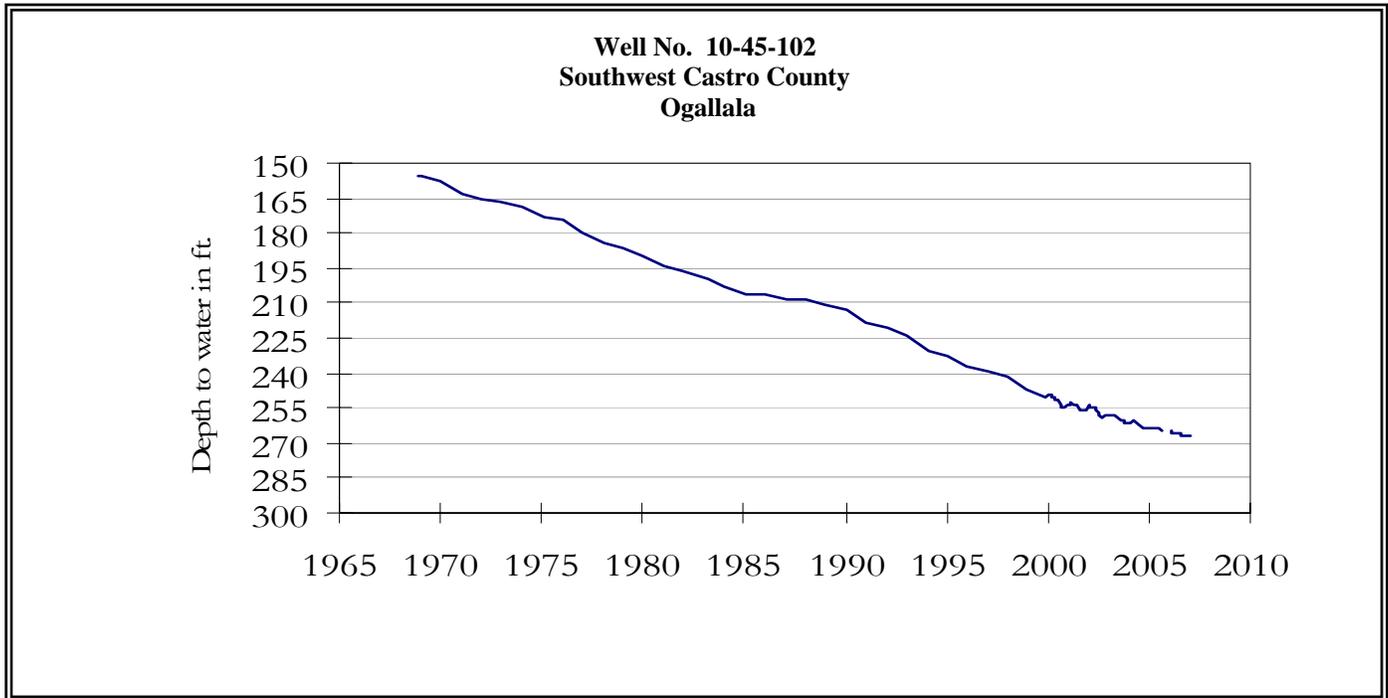
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late Dec. 2006 (acre-feet) (%)	Change since Late November 2006 (acre-feet) (%)	Change since Late December 2005 (acre-feet) (%)
EAST					
Wright Patman Lake	48	142,700	142,700 100	0 0	0 0
Lake Cypress Springs	49	66,800	53,320 80	1,140 2	-3,980 -6
Lake Bob Sandlin	50	202,300	121,900 60	-500 0	-35,000 -17
Lake O' the Pines	51	252,000	165,650 66	1,540 1	-11,430 -5
Lake Fork Reservoir	52	635,200	557,900 88	15,600 2	-9,300 -1
Toledo Bend Reservoir	53	4,472,900	3,710,000 83	335,000 7	690,000 15
Lake Palestine	54	411,300	317,300 77	15,690 4	-18,650 -5
Lake Tyler	55	73,700	48,260 65	1,900 3	-11,090 -15
Sam Rayburn Reservoir	56	2,876,300	2,875,560 100	215,940 8	518,820 18
B. A. Steinhagen Lake	57	94,200	3,880 4	3,420 4	-48,800 -52
Cedar Creek Reservoir	58	637,050	452,000 71	14,300 2	-54,400 -9
Lake Livingston	59	1,750,000	1,750,000 100	0 0	344,000 20
Lake Conroe	60	429,900	424,300 99	10,200 2	85,400 20
TOTAL		12,044,350	10,622,770 88	614,230 5	1,445,570 12
TRANS-PECOS					
Red Bluff Reservoir	61	307,000	102,990 34	2,550 1	-25,490 -8
TOTAL		307,000	102,990 34	2,550 1	-25,490 -8
EDWARDS PLATEAU					
E. V. Spence Reservoir	62	488,760	69,110 14	-610 0	-25,600 -5
Twin Buttes Reservoir	63	177,800	35,060 20	480 0	-13,670 -8
O.C. Fisher Lake	64	119,200	7,880 7	-150 0	-5,970 -5
O. H. Ivie Reservoir	65	554,340	219,900 40	-4,200 -1	-69,500 -13
Lake Buchanan	66	896,980	465,420 52	-8,270 -1	-301,030 -34
Amistad Reservoir (Texas)	67	1,771,030	1,853,000 105	-29,000 -2	-458,000 -26
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	2,565,000 81	-23,000 -1	-198,000 -6
TOTAL		4,008,110	2,650,370 66	-41,750 -1	-873,770 -22
SOUTH CENTRAL					
Somerville Lake	68	155,060	155,060 100	1,580 1	33,430 22
Lake Travis	69	1,144,100	621,080 54	-350 0	-260,620 -23
Canyon Lake	70	385,600	322,140 84	-370 0	-38,630 -10
Coletto Creek Reservoir	71	35,060	23,590 67	-260 -1	-2,110 -6
Medina Lake	72	254,000	94,360 37	-3,860 -2	-102,740 -40
TOTAL		1,973,820	1,216,230 62	-3,260 0	-370,670 -19
UPPER COAST					
Lake Houston	73	128,860	128,860 100	0 0	0 0
Lake Texana	74	157,900	139,350 88	-7,360 -5	-4,080 -3
TOTAL		286,760	268,210 94	-7,360 -3	-4,080 -1
SOUTHERN					
Choke Canyon Reservoir	75	695,260	515,100 74	-1,100 0	-101,900 -15
Lake Corpus Christi	76	241,240	96,350 40	-460 0	-46,150 -19
Falcon Reservoir (Texas)	77	1,555,120	620,000 40	17,000 1	-352,000 -23
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	1,058,000 40	14,000 1	-563,000 -21
TOTAL		2,491,620	1,231,450 49	15,440 1	-500,050 -20
STATE TOTAL		34,470,430	25,279,170 73	698,760 2	-1,489,150 -4

Note:

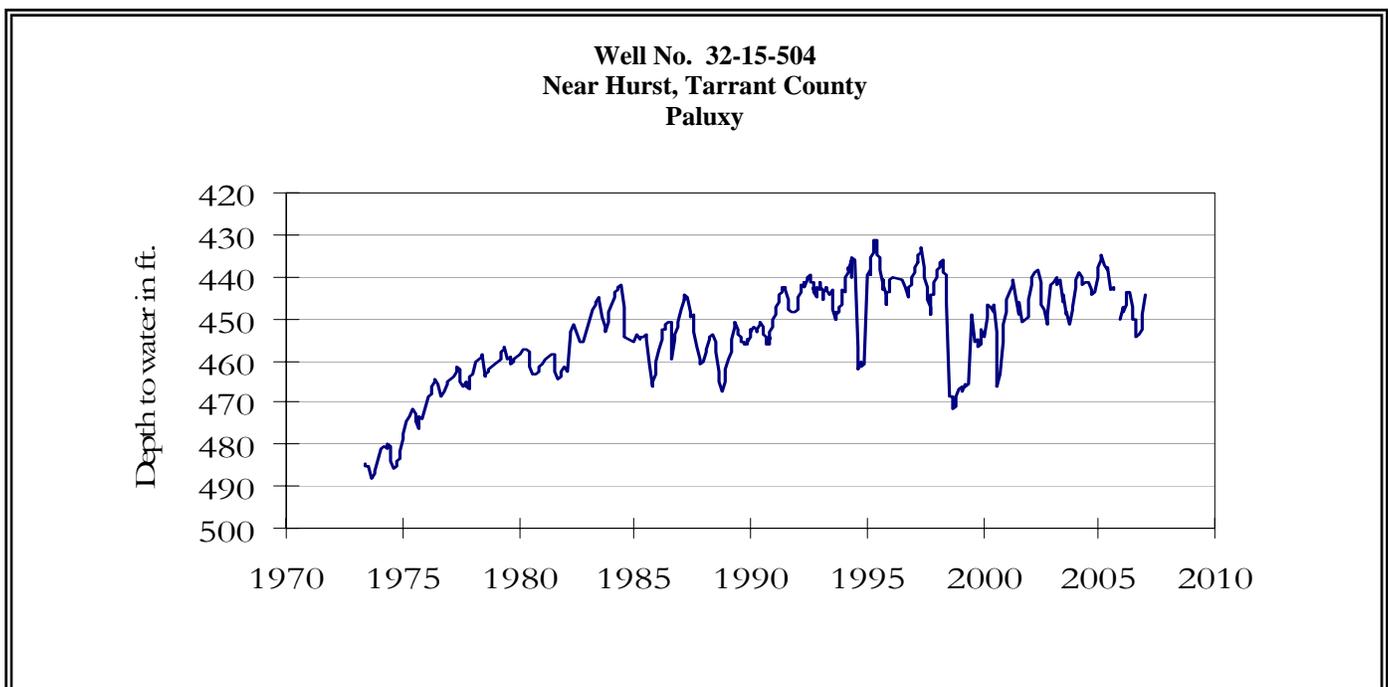
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included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

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.

DECEMBER GROUND WATER LEVELS IN OBSERVATION WELLS

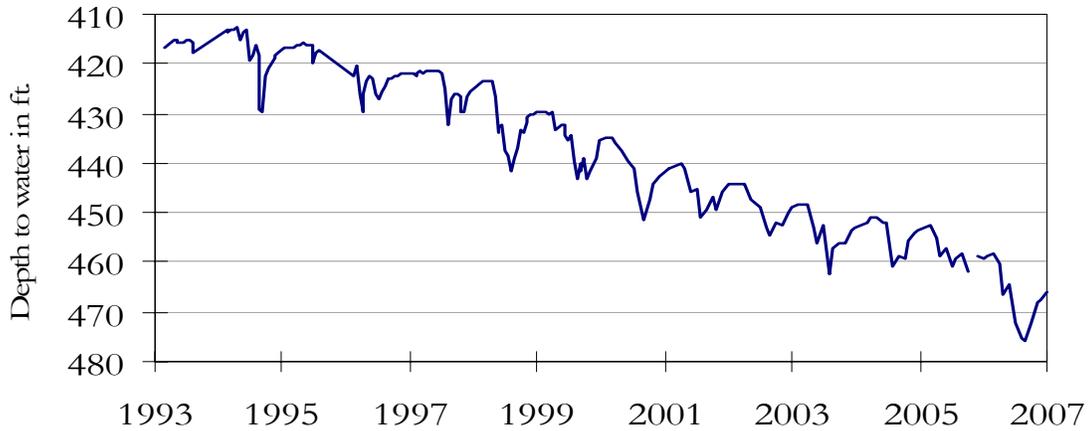


The late December water-level measurement in this Ogallala Aquifer well, elevation 3,816 feet above sea level, was 267.21 feet below land surface. This measurement was 0.07 feet below last month's measurement and 111.21 feet below the initial measurement recorded in 1968. No water level measurements were recorded for September through December 2005.



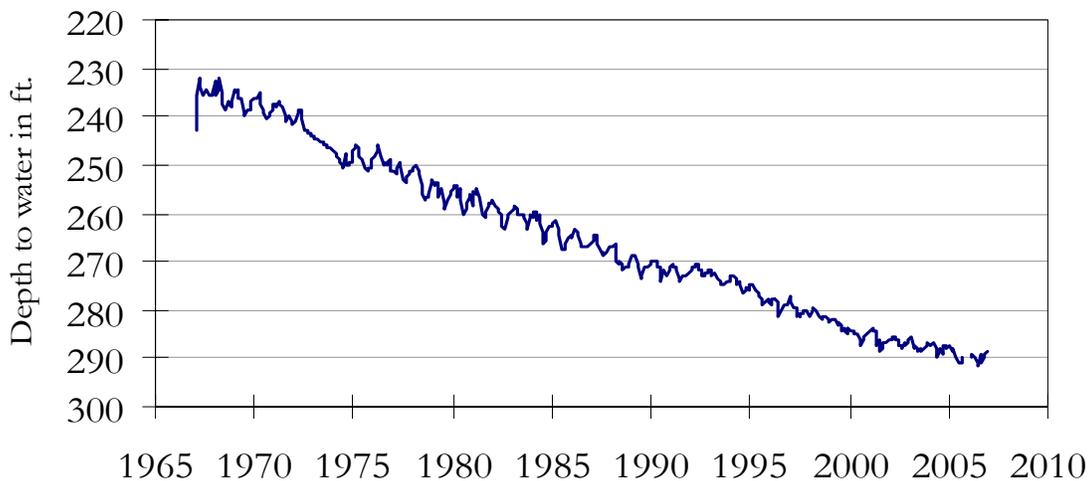
The late December water-level measurement in this Paluxy Formation Trinity Aquifer well, elevation 535 feet above sea level, was 444.40 feet below land surface. This measurement was 4.66 feet above last month's measurement, 2.84 feet above last year's measurement, and 66.40 feet below the initial measurement recorded in 1953. No water level measurements were recorded for September or October 2005.

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



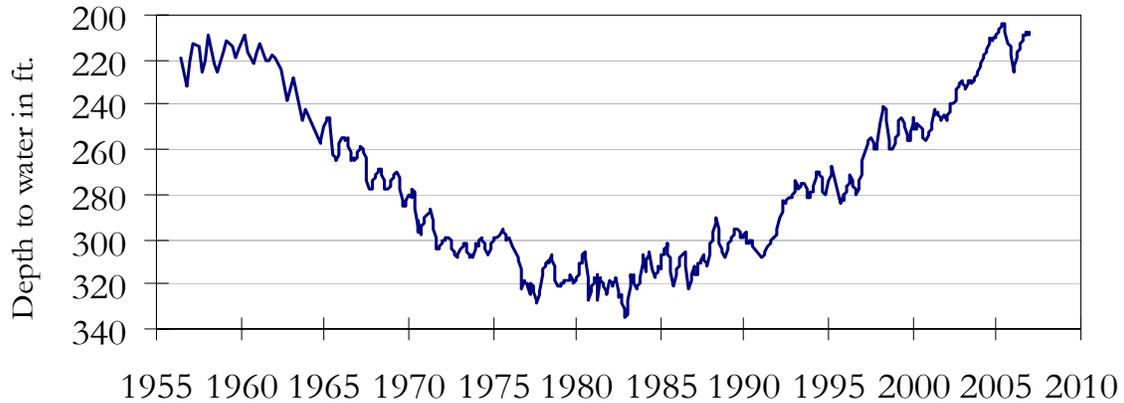
The late December water-level measurement in this Hosston Formation Trinity Aquifer well, elevation 823 feet above sea level, was 465.88 feet below land surface. This water level was 1.56 feet above last month's measurement, 6.87 feet below last year's measurement, and 173.88 feet below the initial measurement recorded in 1955. No water level measurement was recorded for October 2005.

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



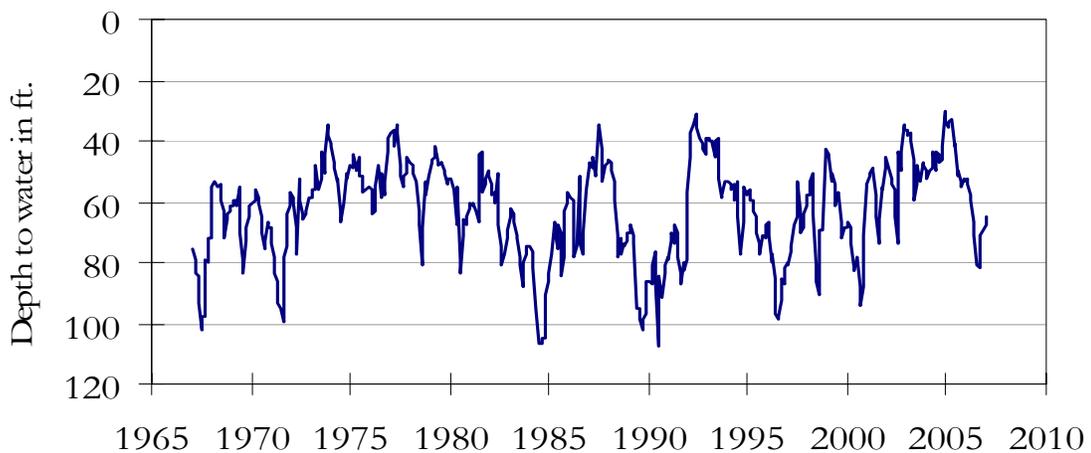
The late December water-level measurement in this Hueco Bolson Aquifer well, elevation 3,882 feet above sea level, was 288.70 feet below land surface. This was 0.04 feet above last month's measurement and 56.80 feet below the initial measurement in 1964. No water level measurements were recorded for October or December 2005.

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



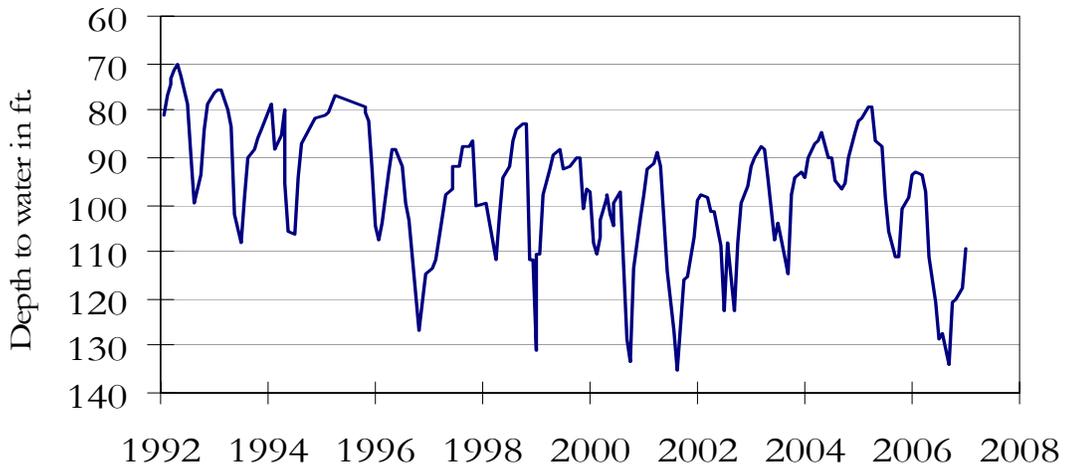
The late December water-level measurement in this Evangeline Formation Gulf Coast Aquifer well, elevation 66 feet above sea level, was 208.55 feet below land surface. This was 0.63 feet below last month's measurement, 17.01 feet above last year's measurement, and 73.05 feet below the initial measurement recorded in 1947.

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



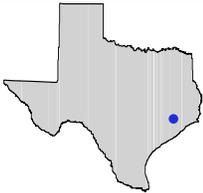
The late December water-level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above sea level, was 64.96 feet below land surface. This was 2.54 feet above last month's measurement, 12.38 feet below last year's measurement, and 18.32 feet below the initial measurement recorded in 1962.

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



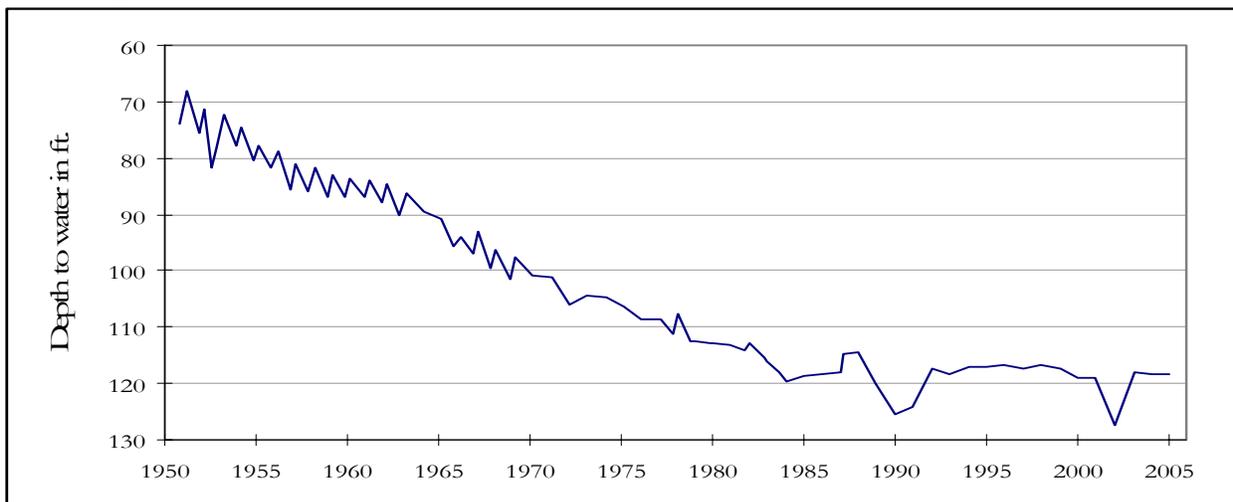
The late December water-level measurement in this Carrizo Aquifer well, elevation 446 feet above sea level, was 109.48 feet below land surface. This measurement was 8.28 feet above last month's measurement, 15.60 feet below last year's measurement, and 74.12 feet below the initial measurement recorded 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. 65-18-101
Fort Bend County**



This water level observation well, located 5 miles south of Katy, at an elevation of 142 feet ASL, was completed in the Gulf Coast Aquifer. Years of heavy pumpage for municipal and manufacturing use in portions of the aquifer have resulted in areas of significant water-level decline.

December, 2006

Water level measurements were available for all seven key monitoring wells. Water levels rose in five of the monitoring wells since the beginning of December, ranging from 0.04 feet in the El Paso Co. Hueco Bolson well to 8.28 feet in the Atascosa Co. Carrizo well. Water levels declined in the remaining monitoring wells, ranging from 0.07 feet in the Castro Co. Ogallala well to 0.63 feet in the Harris Co. Evangeline well. The J-17 well recorded a water level of 64.96 feet below land surface. This water level is 15.04 feet above the Stage 1 critical management level.

TEXAS WATER DEVELOPMENT BOARD

1700 N. CONGRESS AVE.

P.O. BOX 13231

AUSTIN TX 78711-3231