

Texas Water Development Board



Water **Conditions**

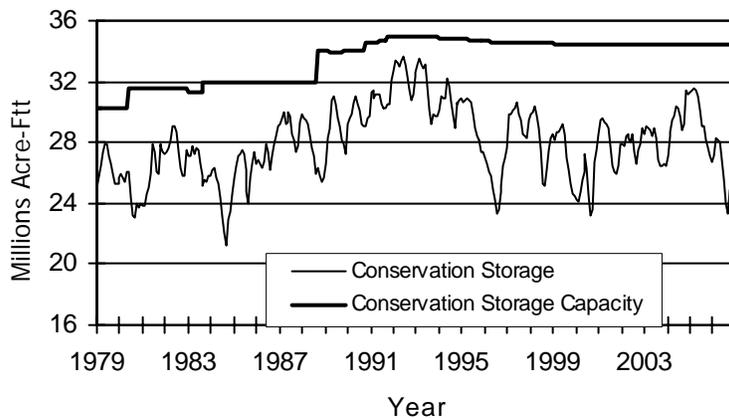
RESERVOIR STORAGE

October 2006

Near the end of October, the 77 reservoirs monitored for this report held 24.83 million acre-feet in conservation storage, or 72 percent of the conservation storage capacity of the state's major reservoirs. Statewide total storage is below normal for this time of year. Storage increased during the month by 1.45 million acre-feet (4% of conservation storage capacity). Compared to last year, storage decreased by 2.77 million acre-feet (-8%).

Storage was at 99% 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 2 reservoirs and Texas' share of Amistad is at 107%. During October, storage increased in 22 reservoirs, decreased in 53 reservoirs, and remained unchanged in 2 reservoirs. Regionally, storage increased in 5 Regions by up to 10%, and remained unchanged in the remaining 4 Regions. Compared to this time last year, storage decreased in all Regions except the Upper Coast and Easy Regions where storage increased by 6% and 5%, respectively. The sharpest decrease was in the South Central Region where storage decreased by 25%.

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.

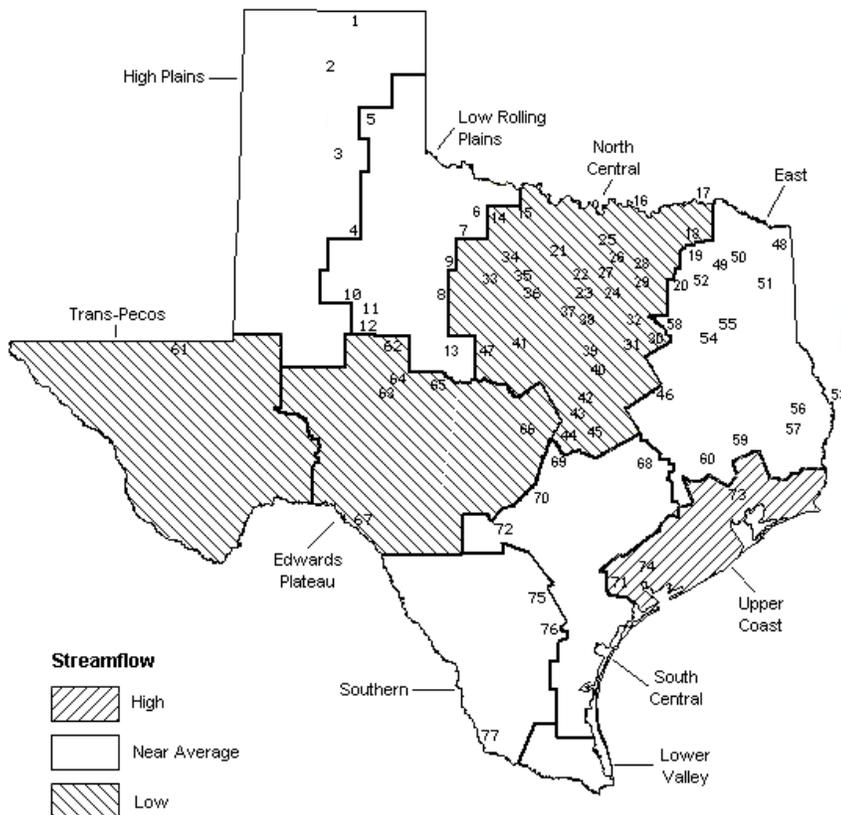
STREAMFLOW

Of 29 reporting index stations in October, computed 30-day mean flows were very high (<5%) at 3 stations, high (5% - 30%) at 5 stations, low (70% - 95%) at 12 stations, very low (>95%) at 1 station, and near normal (30% - 70% exceedance) at the remaining 8 stations. Compared to September, flows have increased at 15 index stations, decreased at 12 stations, and remained unchanged at 2 stations.

On a regional basis, flows in October were high in Upper Coast Region, low in the North Central, Trans-Pecos, and Edwards Regions, and normal in all other Regions. Streamflow in the Lower Valley Region is not monitored.

OCTOBER 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 Oct. 2006 (acre-feet) (%)	Change since Late September 2006 (acre-feet) (%)	Change since Late October 2005 (acre-feet) (%)
HIGH PLAINS					
Palo Duro Reservoir	1	60,900	860	1	-50 0
Lake Meredith (Texas)	2	500,000	109,600	22	-2,240 0
Lake Meredith (Texas and Oklahoma)	(2)	779,560	109,600	14	-2,240 0
MacKenzie Reservoir	3	46,250	8,860	19	140 0
White River Lake	4	31,850	4,700	15	950 3
TOTAL		639,000	124,020	19	-1,200 0
LOW ROLLING PLAINS					
Greenbelt Reservoir	5	58,200	18,180	31	-410 -1
Lake Kemp	6	319,600	212,500	66	43,750 14
Miller's Creek Reservoir	7	27,890	21,460	77	2,090 7
Fort Phantom Hill Reservoir	8	70,030	41,250	59	-2,000 -3
Lake Stamford	9	52,700	34,960	66	-1,000 -2
Lake J. B. Thomas	10	202,300	34,770	17	-1,050 -1
Lake Colorado City	11	30,800	24,110	78	-330 -1
Champion Creek Reservoir	12	41,600	5,260	13	-80 0
Hords Creek Lake	13	8,600	4,830	56	-110 -1
TOTAL		811,720	397,320	49	40,860 5
NORTH CENTRAL					
Lake Kickapoo	14	106,000	72,410	68	5,540 5
Lake Arrowhead	15	262,100	175,050	67	-1,250 0
Lake Texoma	16	2,722,300	2,449,750	90	227,580 8
Pat Mayse Lake	17	124,500	79,500	64	-100 0
Cooper Lake	18	273,000	85,310	31	-8,450 -3
Lake Sulphur Springs	19	17,710	13,580	77	-140 -1
Lake Tawakoni	20	936,200	513,600	55	-24,400 -3
Bridgeport Reservoir	21	374,830	192,800	51	-3,200 -1
Eagle Mountain Reservoir	22	178,380	118,600	66	-8,400 -5
Benbrook Lake	23	88,200	50,360	57	2,310 3
Joe Pool Lake	24	175,800	161,130	92	1,410 1
Ray Roberts Lake	25	798,760	591,650	74	-13,680 -2
Lewisville Lake	26	555,000	385,270	69	-3,860 -1
Grapevine Lake	27	187,700	105,270	56	-4,270 -2
Lavon Lake	28	443,800	173,070	39	-4,710 -1
Lake Ray Hubbard	29	413,420	327,900	79	7,800 2
Richland-Chambers Creek Lake	30	1,103,820	748,000	68	-19,000 -2
Navarro Mills Lake	31	55,810	24,330	44	-930 -2
Bardwell Lake	32	53,580	39,250	73	2,120 4
Hubbard Creek Reservoir	33	317,800	156,390	49	-4,110 -1
Lake Graham	34	45,000	35,350	79	-1,030 -2
Poosum Kingdom Lake	35	551,820	507,420	92	57,240 10
Lake Palo Pinto	36	27,650	13,340	48	-430 -2
Lake Granbury	37	135,680	115,260	85	-3,540 -3
Lake Pat Cleburne	38	25,300	18,500	73	-540 -2
Whitney Lake	39	622,800	447,020	72	-7,820 -1
Waco Lake	40	144,500	123,340	85	-4,900 -3
Proctor Lake	41	55,590	27,070	49	-830 -1
Belton Lake	42	434,500	359,900	83	-3,530 -1
Stillhouse Hollow Lake	43	226,060	209,710	93	-1,550 -1
Lake Georgetown	44	37,010	16,650	45	-480 -1
Granger Lake	45	54,280	48,090	89	3,300 6
Lake Limestone	46	215,750	184,200	85	1,320 1
Lake Brownwood	47	143,400	97,000	68	-1,440 -1
TOTAL		11,908,050	8,666,070	73	186,030 2

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

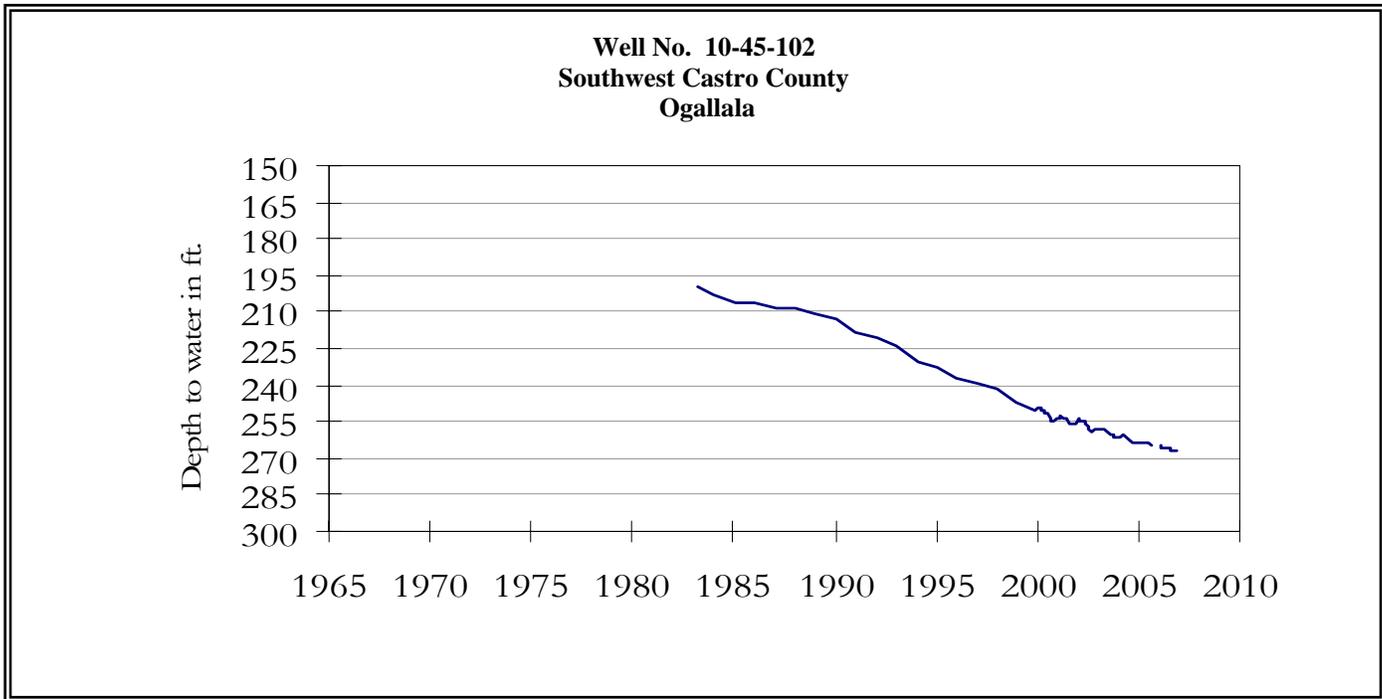
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late Oct. 2006 (acre-feet) (%)	Change since Late September 2006 (acre-feet) (%)	Change since Late October 2005 (acre-feet) (%)
EAST					
Wright Patman Lake	48	142,700	142,700 100	0 0	0 0
Lake Cypress Springs	49	66,800	52,040 78	-920 -1	-6,700 -10
Lake Bob Sandlin	50	202,300	124,900 62	-1,900 -1	-38,000 -19
Lake O' the Pines	51	252,000	163,270 65	-3,640 -1	-27,440 -11
Lake Fork Reservoir	52	635,200	541,600 85	-9,100 -1	-42,900 -7
Toledo Bend Reservoir	53	4,472,900	3,315,000 74	453,000 10	217,000 5
Lake Palestine	54	411,300	298,860 73	-3,600 -1	-49,190 -12
Lake Tyler	55	73,700	46,640 63	-360 0	-16,000 -22
Sam Rayburn Reservoir	56	2,876,300	2,728,480 95	348,460 12	307,980 11
B. A. Steinhagen Lake	57	94,200	30,780 33	30,510 32	-14,270 -15
Cedar Creek Reservoir	58	637,050	445,500 70	-15,200 -2	-92,000 -14
Lake Livingston	59	1,750,000	1,750,000 100	296,000 17	325,000 19
Lake Conroe	60	429,900	391,200 91	54,400 13	46,000 11
TOTAL		12,044,350	10,030,970 83	1,147,650 10	609,480 5
TRANS-PECOS					
Red Bluff Reservoir	61	307,000	91,080 30	750 0	-1,620 -1
TOTAL		307,000	91,080 30	750 0	-1,620 -1
EDWARDS PLATEAU					
E. V. Spence Reservoir	62	488,760	72,000 15	-3,410 -1	-26,880 -5
Twin Buttes Reservoir	63	177,800	35,310 20	-110 0	-10,350 -6
O.C. Fisher Lake	64	119,200	8,380 7	-310 0	-6,540 -5
O. H. Ivie Reservoir	65	554,340	229,900 41	28,900 5	-67,300 -12
Lake Buchanan	66	896,980	488,930 55	-45,770 -5	-289,810 -32
Amistad Reservoir (Texas)	67	1,771,030	1,895,000 107	26,000 1	-460,000 -26
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	2,583,000 82	122,000 4	-202,000 -6
TOTAL		4,008,110	2,729,520 68	5,300 0	-860,880 -21
SOUTH CENTRAL					
Somerville Lake	68	155,060	155,060 100	29,600 19	26,100 17
Lake Travis	69	1,144,100	632,880 55	-940 0	-282,020 -25
Canyon Lake	70	385,600	325,320 84	-2,680 -1	-40,420 -10
Coletto Creek Reservoir	71	35,060	25,360 72	-990 -3	-2,070 -6
Medina Lake	72	254,000	103,100 41	-4,100 -2	-109,100 -43
TOTAL		1,973,820	1,241,720 63	20,890 1	-407,510 -21
UPPER COAST					
Lake Houston	73	128,860	128,860 100	0 0	0 0
Lake Texana	74	157,900	156,150 99	-410 0	18,110 11
TOTAL		286,760	285,010 99	-410 0	18,110 6
SOUTHERN					
Choke Canyon Reservoir	75	695,260	529,800 76	-10,200 -1	-104,200 -15
Lake Corpus Christi	76	241,240	106,700 44	-1,900 -1	-53,700 -22
Falcon Reservoir (Texas)	77	1,555,120	623,000 40	62,000 4	-284,000 -18
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	1,081,000 41	135,000 5	-415,000 -16
TOTAL		2,491,620	1,259,500 51	49,900 2	-441,900 -18
STATE TOTAL		34,470,430	24,825,210 72	1,449,770 4	-2,765,490 -8

Note:

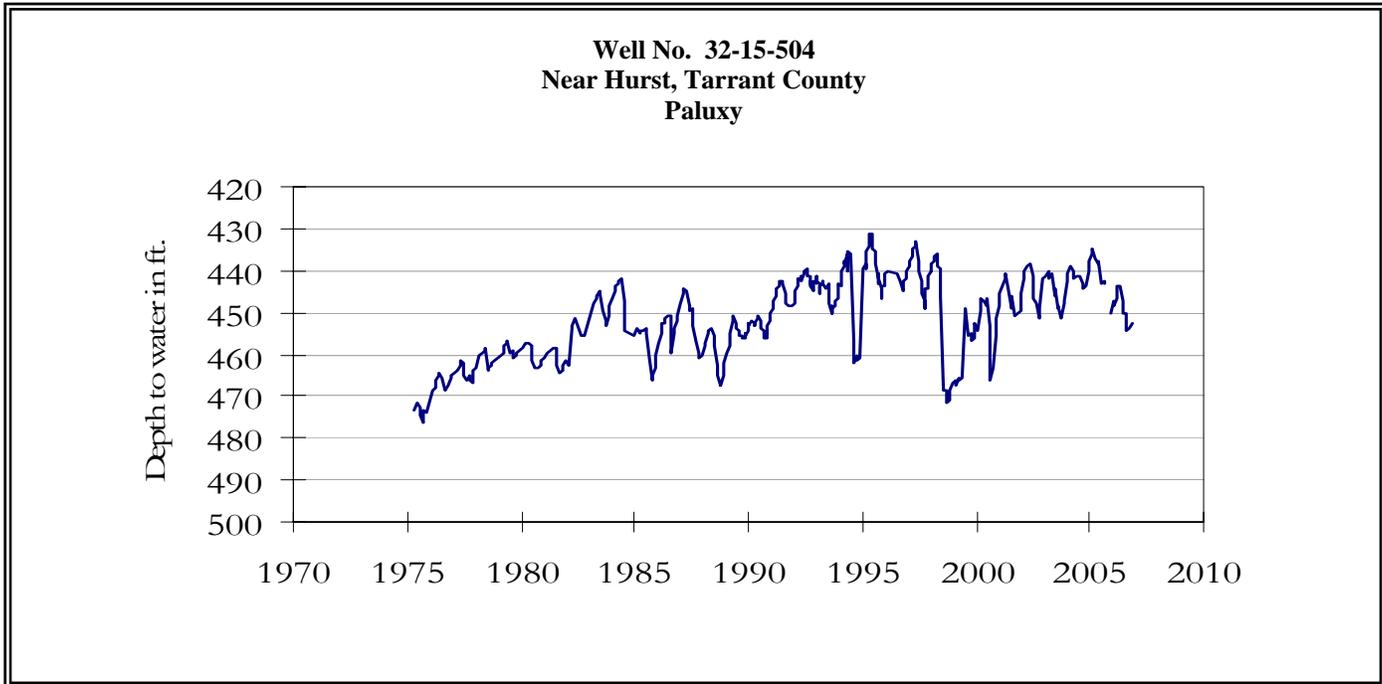
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included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

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.

OCTOBER GROUND WATER LEVELS IN OBSERVATION WELLS

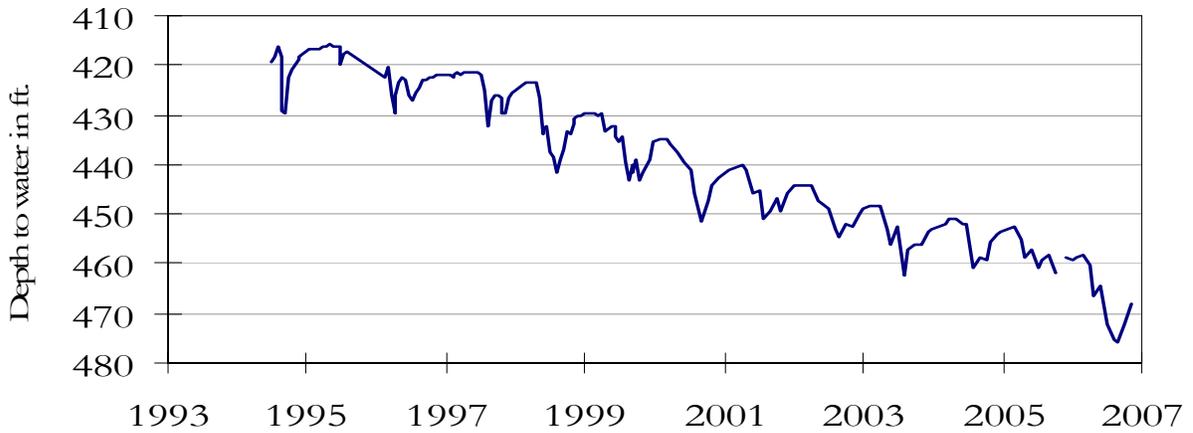


The late October water-level measurement in this Ogallala Aquifer well, elevation 3,816 feet above sea level, was 267.11 feet below land surface. This measurement was 0.25 feet below last month's measurement and 111.11 feet below the initial measurement recorded in 1968. No water level measurements were recorded for September through December 2005.



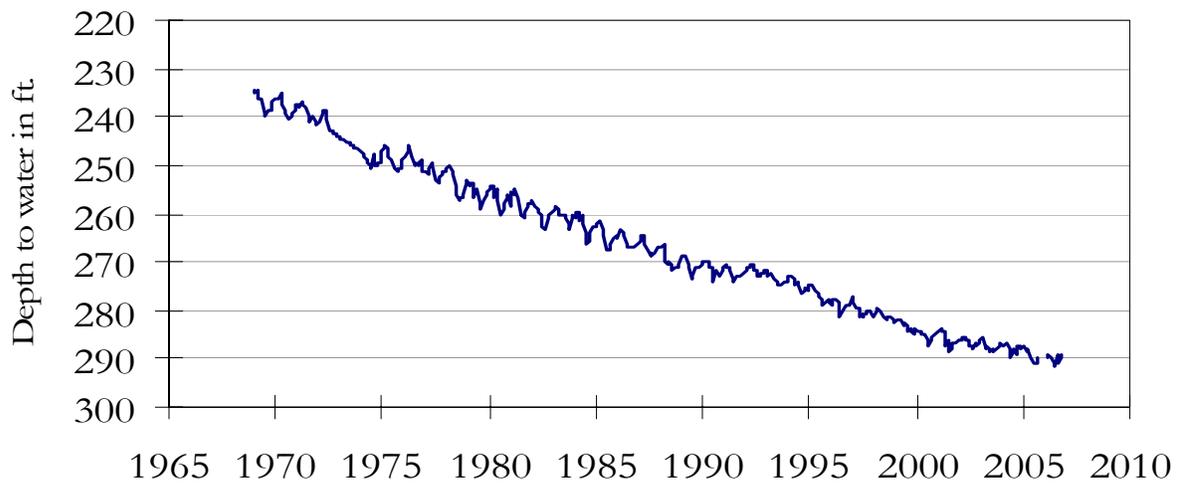
The late October water-level measurement in this Paluxy Formation Trinity Aquifer well, elevation 535 feet above sea level, was 452.30 feet below land surface. This measurement was 1.44 feet above last month's measurement and 74.30 feet below the initial measurement recorded in 1953. No water level measurements were recorded for September or October 2005.

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



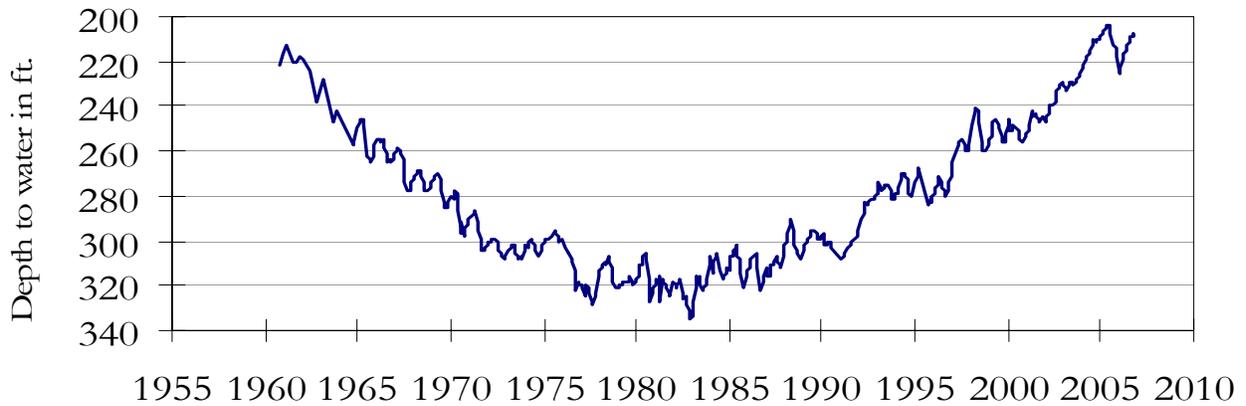
The late October water-level measurement in this Hosston Formation Trinity Aquifer well, elevation 823 feet above sea level, was 468.17 feet below land surface. This water level was 3.99 feet above last month's measurement and 176.17 feet below the initial measurement recorded in 1955. No water level measurement was recorded for October 2005.

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



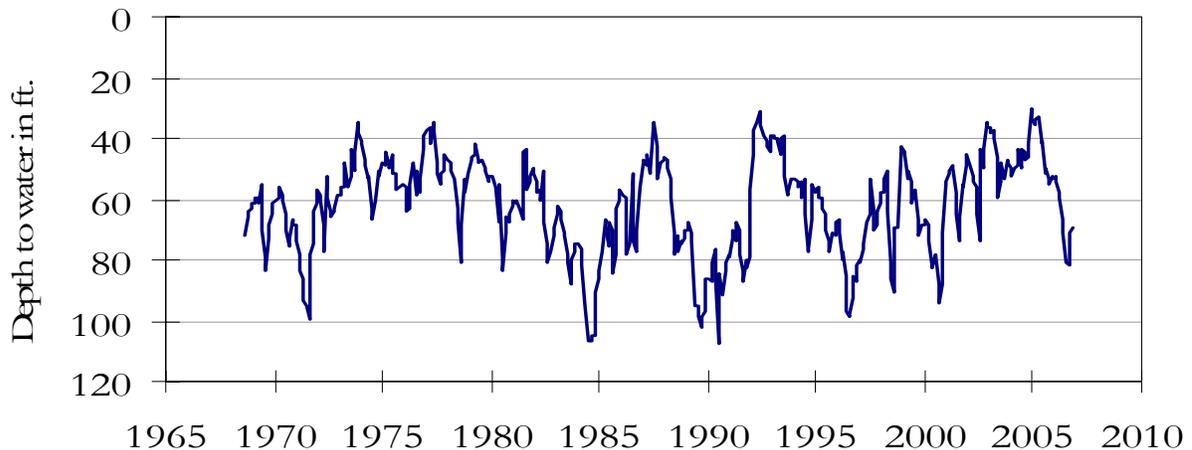
The late October water-level measurement in this Hueco Bolson Aquifer well, elevation 3,882 feet above sea level, was 289.20 feet below land surface. This was 0.57 feet above last month's measurement and 57.30 feet below the initial measurement in 1964. No water level measurements were recorded for October or December 2005.

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



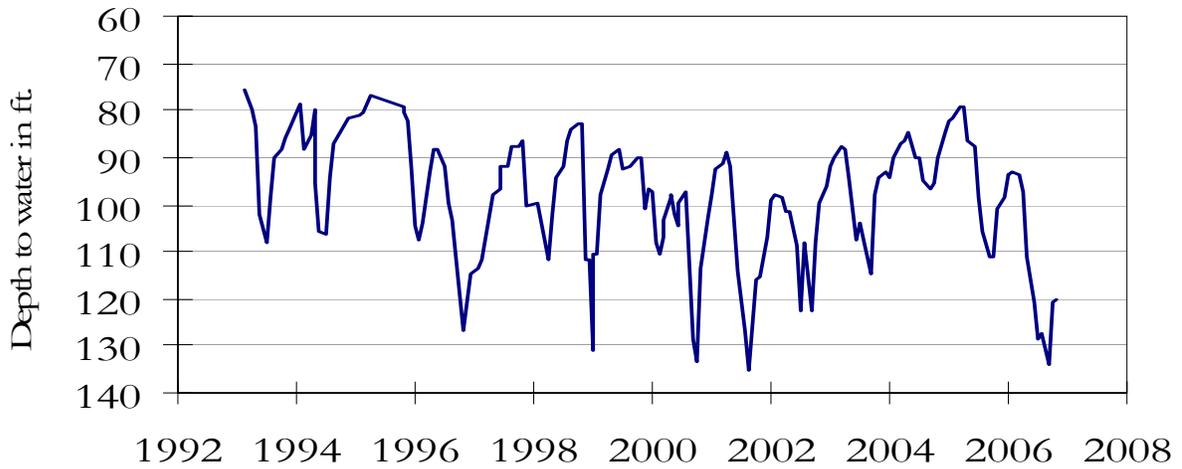
The late October water-level measurement in this Evangeline Formation Gulf Coast Aquifer well, elevation 66 feet above sea level, was 208.53 feet below land surface. This was 0.50 feet below last month's measurement, 8.97 feet above last year's measurement, and 73.03 feet below the initial measurement recorded in 1947.

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



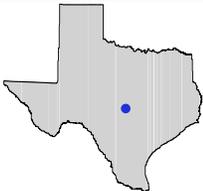
The late October water-level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above sea level, was 69.50 feet below land surface. This was 1.82 feet above last month's measurement, 16.95 feet below last year's measurement, and 22.86 feet below the initial measurement recorded in 1962.

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



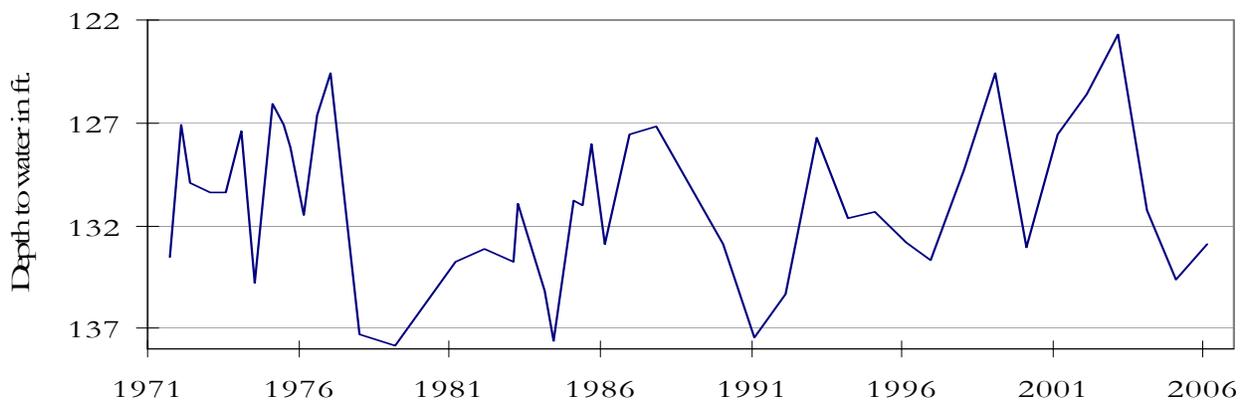
The late October water-level measurement in this Carrizo Aquifer well, elevation 446 feet above sea level, was 120.14 feet below land surface. This measurement was 0.48 feet above last month's measurement, 19.29 feet below last year's measurement, and 84.78 feet below the initial measurement recorded 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. 67-01-305
Hays County**



This water level observation well, located 2 miles south of Kyle, at an elevation of 704 feet ASL, was completed in the Edwards (BFZ) Aquifer. Due to its highly permeable nature, this aquifer responds quickly to changes and extremes in stress placed on the system. This is indicated by the rapid fluctuations in water level over relatively short periods of time.

October, 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 October, ranging from 0.48 feet in the Atascosa Co. Carrizo well to 3.99 feet in the Coryell Co. Hosston/Trinity well. Water levels declined in the remaining two wells, ranging from 0.25 feet in the Castro Co. Ogallala well to 0.50 feet in the Harris Co. Evangeline well. The J-17 well recorded a water level of 69.50 ft. below land surface. This water level is 10.50 feet above the Stage 1 critical management level.

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