Texas Water Development Board

WATER Conditions

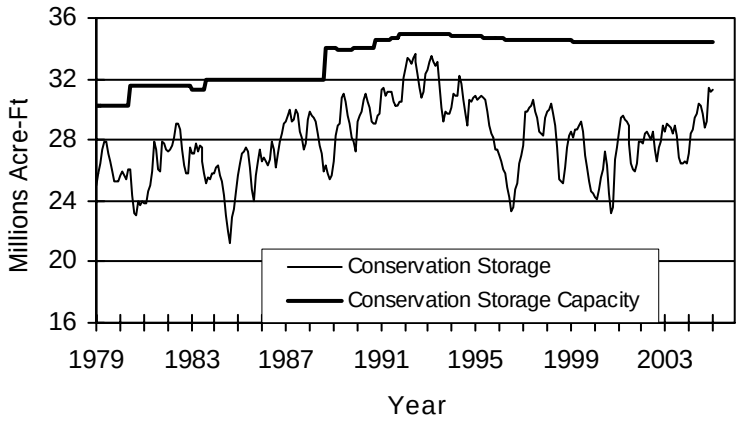
RESERVOIR STORAGE

January 2005

Near the end of January, the 77 reservoirs monitored for this report held 31.28 million acre-feet in conservation storage, or **91** percent of the conservation storage capacity of the state's major reservoirs. Storage increased during the month by 0.18 million acre-feet (0.5% of conservation storage capacity). Compared to the previous year, storage was greater, up 4.13 million acre-feet (12%).

Storage was at capacity (100%) in South Central and Upper Coast Regions, near capacity in the East (95%), North Central (96%), and Edwards Plateau (92%) Regions, while the High Plains (31%) Region remained lower than one-third. Storage was at 100% in 35 reservoirs, and the Texas share of Amistad continued to remain above its capacity, reaching 136%. Compared to this time last year, all regions had increases in storage with the greatest increase in the Edwards Plateau Region (+30%).

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.

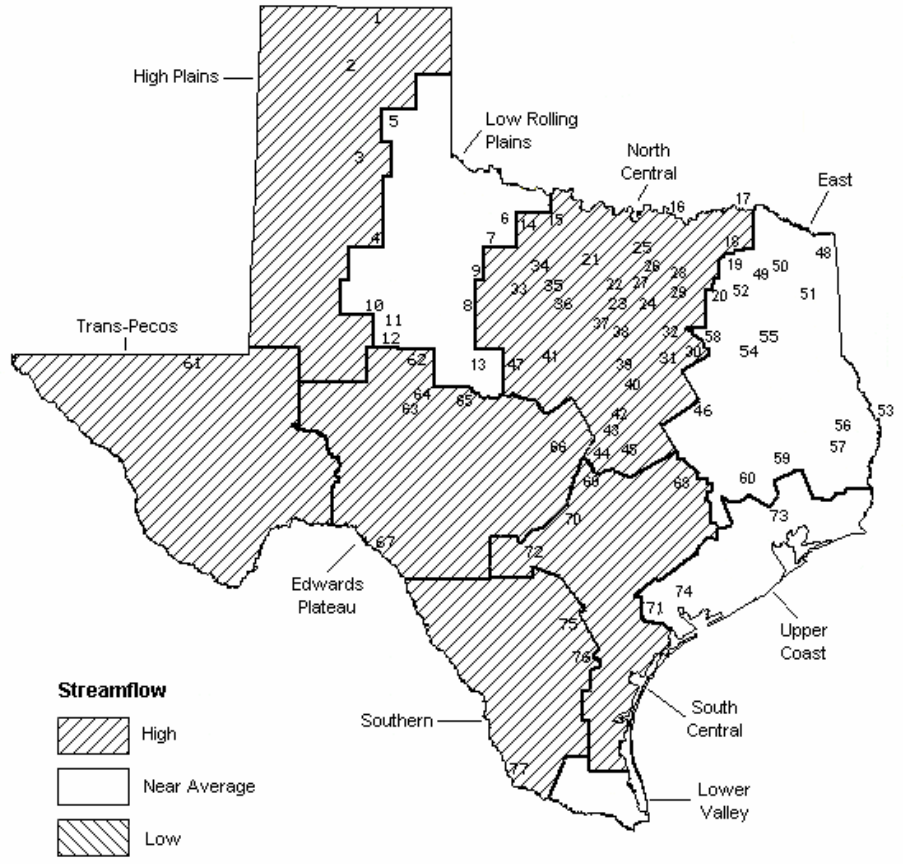
PO BOX 13231 • 1700 N. Congress Avenue • Austin, TX 78711-3231
Telephone (512) 463-7847 • Telefax (512) 475-2053 • 1-800-RELAYTX (for the hearing impaired)

STREAMFLOW

Of 29 reporting index stations in January, computed 30-day mean flows are high (5% - 30% exceedance) at 18 stations, near normal (30% - 70% exceedance) at 10 stations and low (70% - 95% exceedance) at 1 station. In comparison to December, flows have increased at 12 index stations and decreased at 17 stations.

On a regional basis, flows in January have been high in the High Plains, North Central, Trans-Pecos, Edwards Plateau, South Central, and Southern Regions, and near normal everywhere else.

JANUARY STREAMFLOW CONDITIONS



Reservoirs Shown on Map

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

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late Jan. 2005 (acre-feet)	(%)	Change since Late December 2004 (acre-feet)	(%)	Change since Late January 2004 (acre-feet)	(%)
HIGH PLAINS								
Palo Duro Reservoir	1	60,900	4,650	8	220	0	1,960	3
Lake Meredith (Texas)	2	500,000	172,280	34	6,090	1	36,340	7
Lake Meredith (Texas and Oklahoma)	(2)	779,560	172,280	22	6,090	1	36,340	5
MacKenzie Reservoir	3	46,250	10,030	22	0	0	4,260	9
White River Lake	4	31,850	10,000	31	200	1	4,460	14
TOTAL		639,000	196,960	31	6,510	1	47,020	7
LOW ROLLING PLAINS								
Greenbelt Reservoir	5	58,200	23,100	40	420	1	-770	-1
Lake Kemp	6	319,600	249,150	78	2,770	1	79,910	25
Miller's Creek Reservoir	7	27,890	21,090	76	-230	-1	9,150	33
Fort Phantom Hill Reservoir	8	70,030	65,860	94	-1,400	-2	37,680	54
Lake Stamford	9	52,700	35,600	68	-600	-1	4,630	9
Lake J. B. Thomas	10	202,300	61,800	31	-260	0	41,140	20
Lake Colorado City	11	30,800	30,800	100	0	0	10,690	35
Champion Creek Reservoir	12	41,600	5,040	12	80	0	1,680	4
Hords Creek Lake	13	8,600	7,930	92	80	1	5,560	65
TOTAL		811,720	500,370	62	860	0	189,670	23
NORTH CENTRAL								
Lake Kickapoo	14	106,000	72,460	68	-1,130	-1	13,460	13
Lake Arrowhead	15	262,100	195,940	75	5,410	2	78,800	30
Lake Texoma	16	2,722,300	2,556,250	94	-61,300	-2	415,330	15
Pat Mayse Lake	17	124,500	124,500	100	4,700	4	19,440	16
Cooper Lake	18	273,000	268,460	98	55,440	20	61,930	23
Lake Sulphur Springs	19	17,710	17,710	100	0	0	2,110	12
Lake Tawakoni	20	936,200	897,900	96	15,400	2	115,800	12
Bridgeport Reservoir	21	374,830	351,900	94	6,900	2	130,100	35
Eagle Mountain Reservoir	22	178,380	176,000	99	3,000	2	37,000	21
Benbrook Lake	23	88,200	84,310	96	-2,310	-3	3,230	4
Joe Pool Lake	24	175,800	175,800	100	0	0	0	0
Ray Roberts Lake	25	798,760	798,760	100	0	0	77,590	10
Lewisville Lake	26	555,000	555,000	100	0	0	41,510	7
Grapevine Lake	27	187,700	187,570	100	4,180	2	39,110	21
Lavon Lake	28	443,800	443,800	100	0	0	94,900	21
Lake Ray Hubbard	29	413,420	413,420	100	11,820	3	60,720	15
Richland-Chambers Creek Lake	30	1,103,820	1,103,820	100	0	0	79,820	7
Navarro Mills Lake	31	55,810	55,810	100	0	0	390	1
Bardwell Lake	32	53,580	50,890	95	3,660	7	2,710	5
Hubbard Creek Reservoir	33	317,800	185,990	59	-110	0	65,310	21
Lake Graham	34	45,000	41,510	92	2,290	5	19,570	43
Possum Kingdom Lake	35	551,820	533,900	97	-9,900	-2	123,300	22
Lake Palo Pinto	36	27,650	25,950	94	-390	-1	13,130	47
Lake Granbury	37	135,680	133,200	98	-700	-1	100	0
Lake Pat Cleburne	38	25,300	25,300	100	0	0	5,010	20
Whitney Lake	39	622,800	610,140	98	30,650	5	165,160	27
Waco Lake	40	144,500	144,500	100	0	0	0	0
Proctor Lake	41	55,590	55,590	100	0	0	8,310	15
Belton Lake	42	434,500	434,500	100	0	0	0	0
Stillhouse Hollow Lake	43	226,060	226,060	100	0	0	3,860	2
Lake Georgetown	44	37,010	37,010	100	0	0	15,210	41
Granger Lake	45	54,280	54,280	100	0	0	4,950	9
Lake Limestone	46	215,750	215,750	100	2,900	1	14,300	7
Lake Brownwood	47	143,400	132,470	92	-1,040	-1	6,370	4
TOTAL		11,908,050	11,386,450	96	69,470	1	1,718,530	14

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late Jan. 2005 (acre-feet)	(%)	Change since Late December 2004 (acre-feet)	(%)	Change since Late January 2004 (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	1,370	2	2,700	4
Lake Bob Sandlin	50	202,300	199,400	99	4,200	2	19,300	10
Lake O' the Pines	51	252,000	245,510	97	-3,330	-1	14,710	6
Lake Fork Reservoir	52	635,200	635,200	100	0	0	25,300	4
Toledo Bend Reservoir	53	4,472,900	3,956,000	88	41,000	1	-16,000	0
Lake Palestine	54	411,300	411,300	100	0	0	24,350	6
Lake Tyler	55	73,700	73,700	100	0	0	4,710	6
Sam Rayburn Reservoir	56	2,876,300	2,876,300	100	0	0	305,920	11
B. A. Steinhagen Lake	57	94,200	86,340	92	3,120	3	-380	0
Cedar Creek Reservoir	58	637,050	637,050	100	1,750	0	91,150	14
Lake Livingston	59	1,750,000	1,750,000	100	6,000	0	0	0
Lake Conroe	60	429,900	420,500	98	3,900	1	0	0
TOTAL		12,044,350	11,500,800	95	58,010	0	471,760	4
TRANS-PECOS								
Red Bluff Reservoir	61	307,000	119,230	39	1,880	1	64,310	21
TOTAL		307,000	119,230	39	1,880	1	64,310	21
EDWARDS PLATEAU								
E. V. Spence Reservoir	62	488,760	78,360	16	-580	0	34,440	7
Twin Buttes Reservoir	63	177,800	30,980	17	3,960	2	26,470	15
O.C. Fisher Lake	64	119,200	7,200	6	-160	0	4,270	4
O. H. Ivie Reservoir	65	554,340	236,200	43	2,100	0	43,180	8
Lake Buchanan	66	896,980	896,980	100	0	0	84,770	9
Amistad Reservoir (Texas)	67	1,771,030	2,434,000	137	27,000	2	1,019,000	58
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	2,975,000	94	40,000	1	1,413,000	45
TOTAL		4,008,110	3,683,720	92	32,320	1	1,212,130	30
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	162,370	14
Canyon Lake	70	385,600	381,240	99	-1,330	0	1,400	0
Coleto Creek Reservoir	71	35,060	32,360	92	480	1	380	1
Medina Lake	72	254,000	254,000	100	0	0	34,100	13
TOTAL		1,973,820	1,966,760	100	-850	0	198,250	10
UPPER COAST								
Lake Houston	73	128,860	128,860	100	0	0	0	0
Lake Texana	74	157,900	157,900	100	1,950	1	730	0
TOTAL		286,760	286,760	100	1,950	1	730	0

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

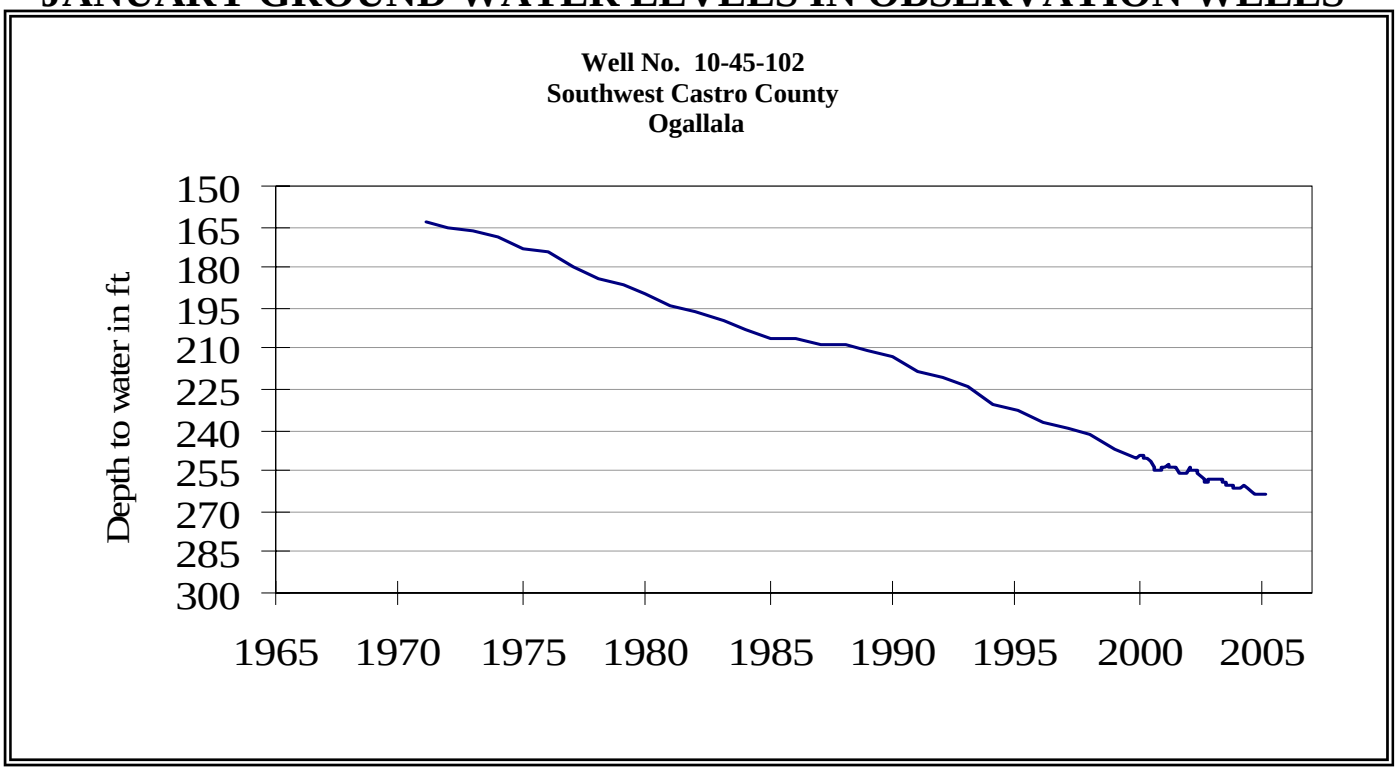
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late Jan. 2005 (acre-feet)	(%)	Change since Late December 2004 (acre-feet)	(%)	Change since Late January 2004 (acre-feet)	(%)
			SOUTHERN					
Choke Canyon Reservoir	75	695,260	693,000	100	1,000	0	11,000	2
Lake Corpus Christi	76	241,240	241,240	100	0	0	2,340	1
Falcon Reservoir (Texas)	77	1,555,120	701,000	45	8,000	1	211,000	14
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	1,696,000	64	-96,000	-4	553,000	21
TOTAL		2,491,620	1,635,240	66	9,000	0	224,340	9
STATE TOTAL		34,470,430	31,276,290	91	179,150	1	4,126,740	12

Note:

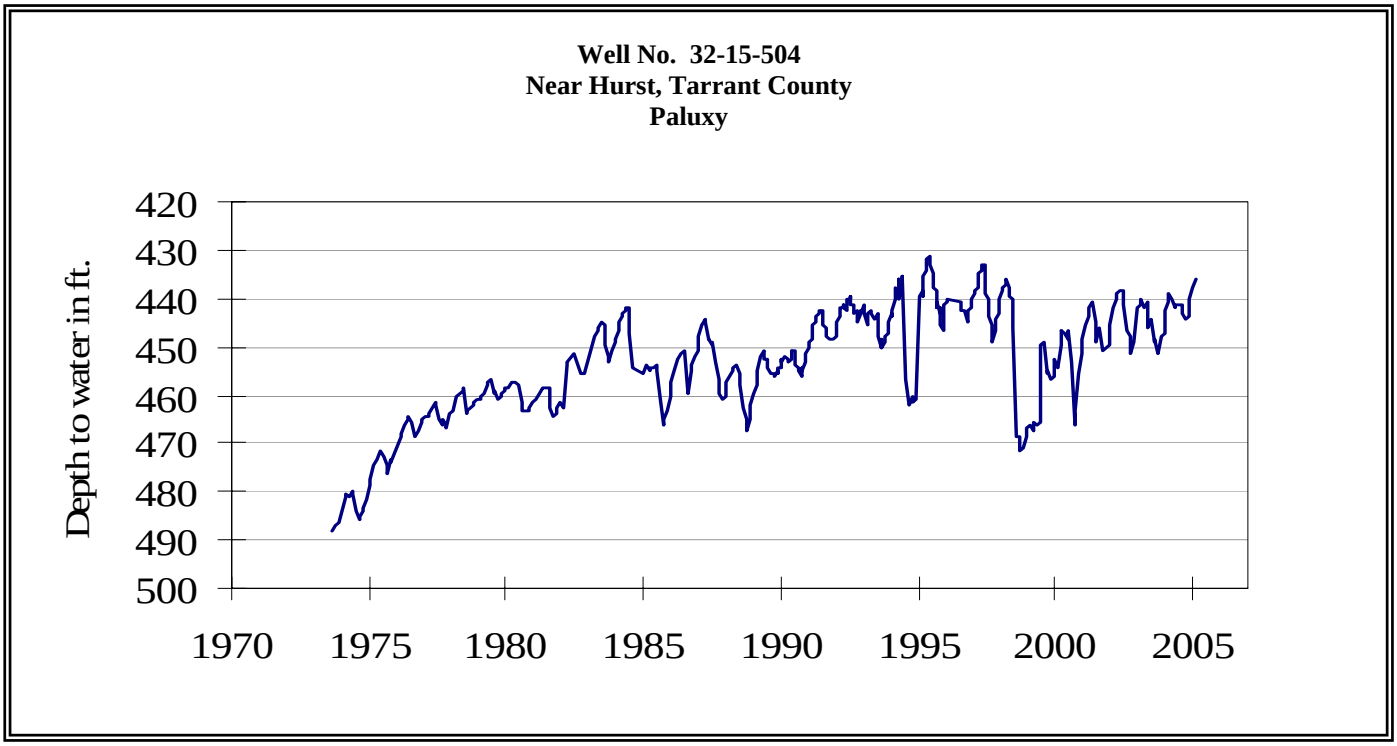
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included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

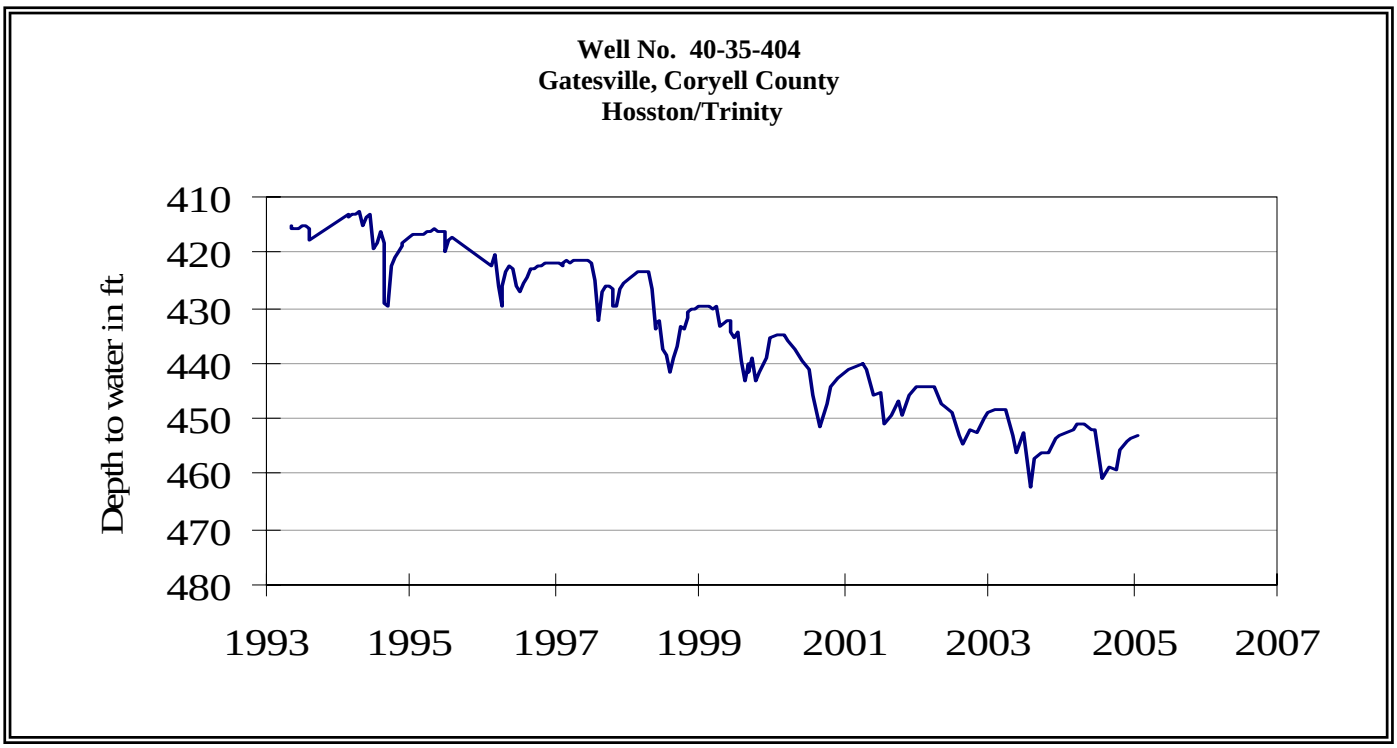
JANUARY GROUND WATER LEVELS IN OBSERVATION WELLS



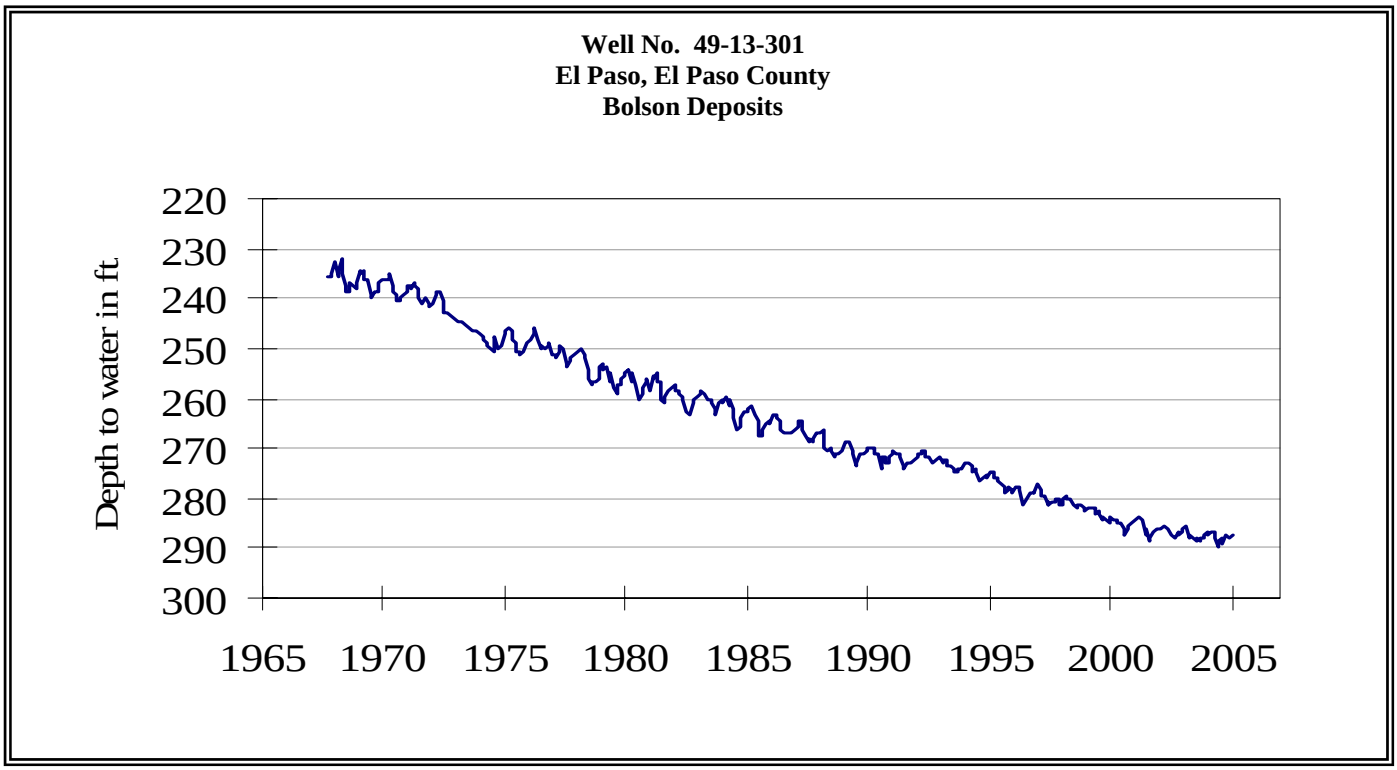
The late January water-level measurement in this Ogallala aquifer well, elevation 3,816 feet above sea level, was 263.60 feet below land surface. This measurement was 0.09 foot above last month's measurement, 2.60 feet below last year's measurement, and 107.60 feet below the initial measurement recorded in 1968.



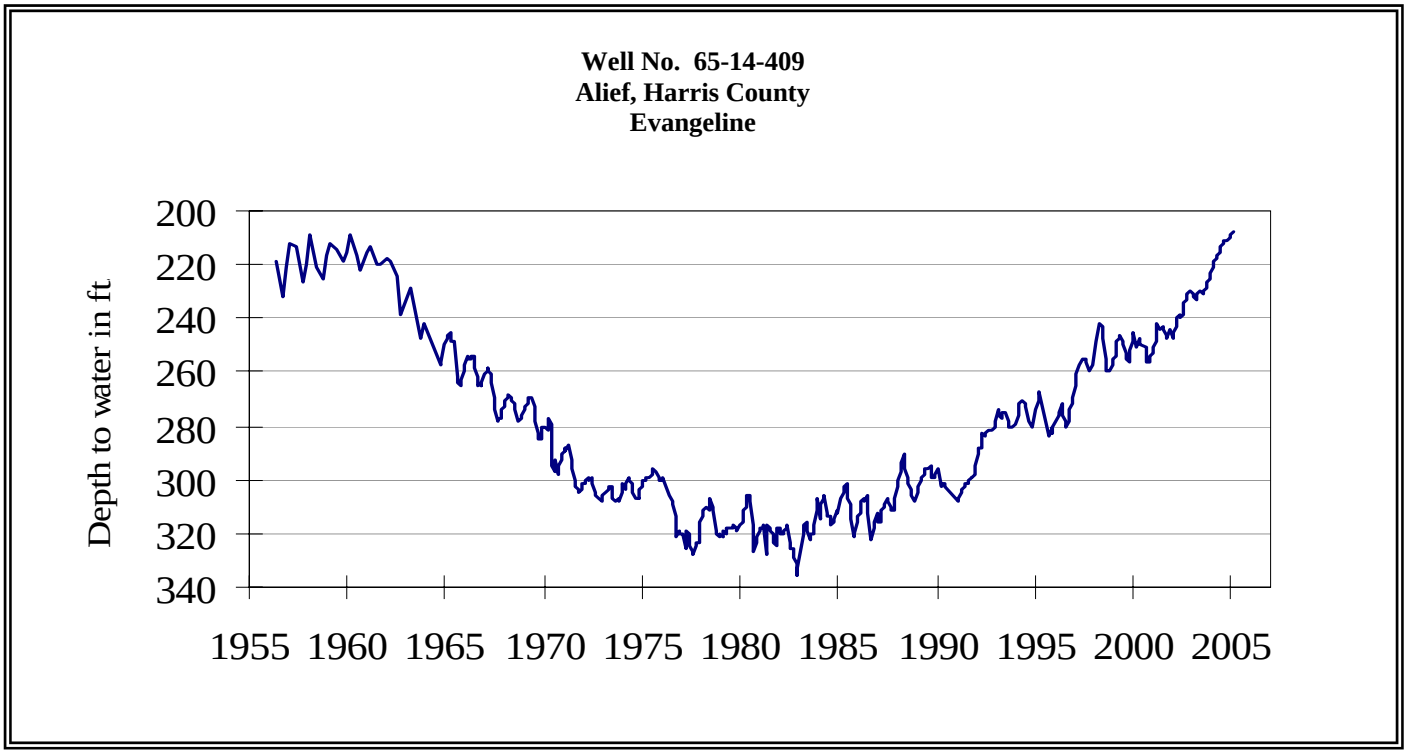
The late January water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 436.00 feet below land surface. This measurement was 1.05 feet above last month's measurement, 4.73 feet above last year's measurement, and 42.61 feet below the initial measurement recorded in 1953.



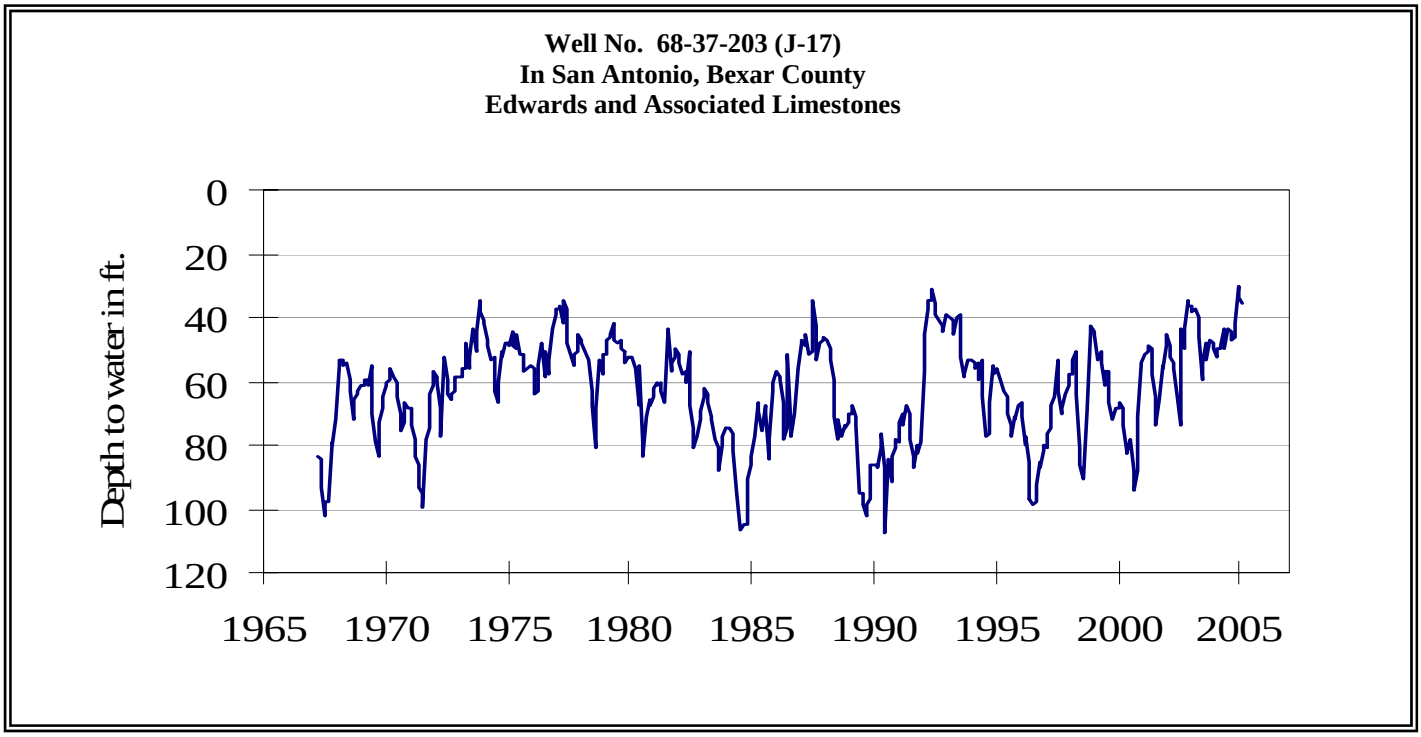
The late January water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 453.10 feet below land surface. This water level was 0.34 foot above last month's measurement, 0.79 foot below last year's measurement, and 161.10 feet below the initial measurement recorded in 1955.



The late January water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 287.60 feet below land surface. This was 0.28 foot below last month's measurement, 0.50 foot below last year's measurement, and 55.70 feet below the initial measurement recorded in 1964.

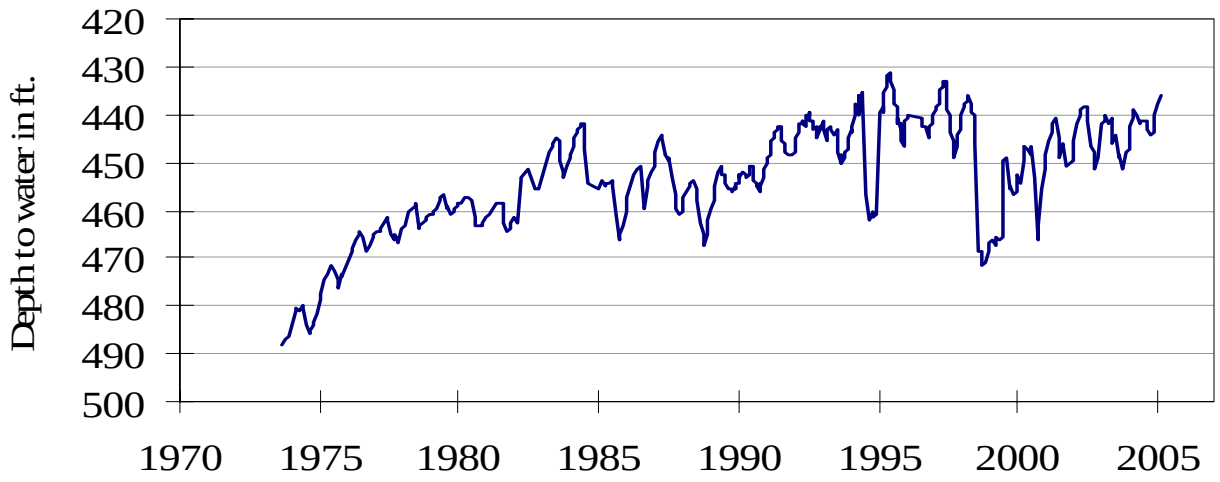


The late January water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 207.50 feet below land surface. This was 1.27 feet above last month's measurement, 13.76 feet above last year's measurement, and 104.27 feet below the initial measurement recorded in 1947.



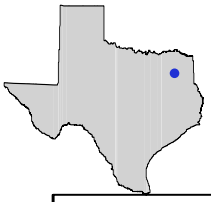
The late January water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 35.40 feet below land surface. This was 1.47 feet below last month's measurement, 14.80 feet above last year's measurement, and 24.22 feet above the initial measurement recorded in 1962.

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



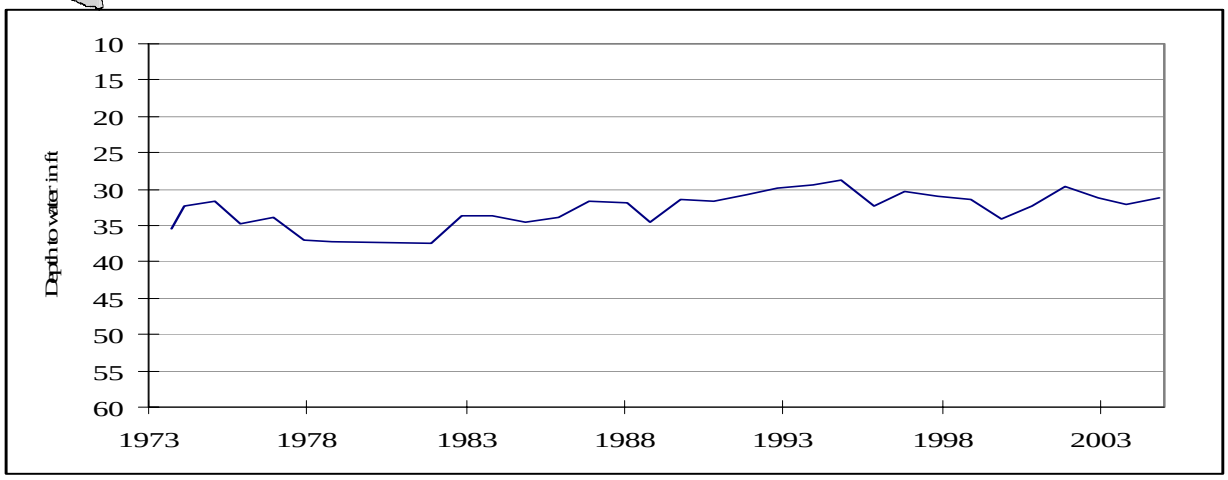
The late January water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 81.65 feet below land surface. This measurement was 0.38 foot above last month's measurement, 8.47 feet above last year's measurement, and 0.40 foot below the initial measurement recorded in 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. 16-28-902
Bowie County



This unused water level observation well was used for domestic needs. It is located 28 miles east of Texarkana at an elevation of 349 feet ASL, and was completed in the Nacatoch Aquifer. Water levels have been stabilized in the area with the use of available surface water supplies.

December 31, 2004
Water levels rose in five of the seven key monitoring wells since the beginning of January, ranging from 0.09 foot in the Castro County Ogallala well to 1.50 feet in the Tarrant County Paluxy well. Water levels declined in the J-17 Edwards BFZ Aquifer index well located in Bexar County and the El Paso County Bolson Deposits observation well. The J-17 recorded a water level of 35.40 feet below the land surface, a decline of 1.47 feet from the December 2004 measurement. This water level is approximately forty-three (43) feet above the Stage I critical water management criteria. The El Paso County observation well recorded a water level measurement of 287.60 feet below the land surface, a decline of 0.28 foot from the December 2004 measurement.

TEXAS WATER DEVELOPMENT BOARD
1700 N. CONGRESS AVE.
P.O. BOX 13231
AUSTIN TX 78711-3231