Texas Water Development Board

WATER Conditions

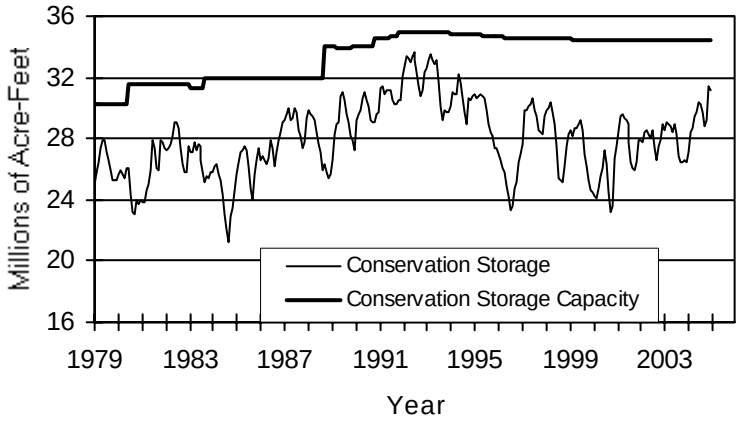
RESERVOIR STORAGE

December 2004

Near the end of December, the 77 reservoirs monitored for this report held 31.10 million acre-feet in conservation storage, or **90** percent of the conservation storage capacity of the state's major reservoirs. Storage decreased during the month by 0.37 million acre-feet (1% of conservation storage capacity). Compared to the previous year, storage was greater, up 4.66 million acre-feet (14%).

Storage was at capacity (100%) in South Central Region, near capacity in the Upper Coast (98%), East and North Central (95%), and Edwards Plateau (91%) Regions, while the High Plains (30%) Region remained lower than one-third. Storage was at 100% in 29 reservoirs, and Texas share of the Amistad continued to remain above its capacity, to reach 136%. Compared to this time last year, all regions had increases in storage with the greatest increase in Edwards Plateau Region (+34%).

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.

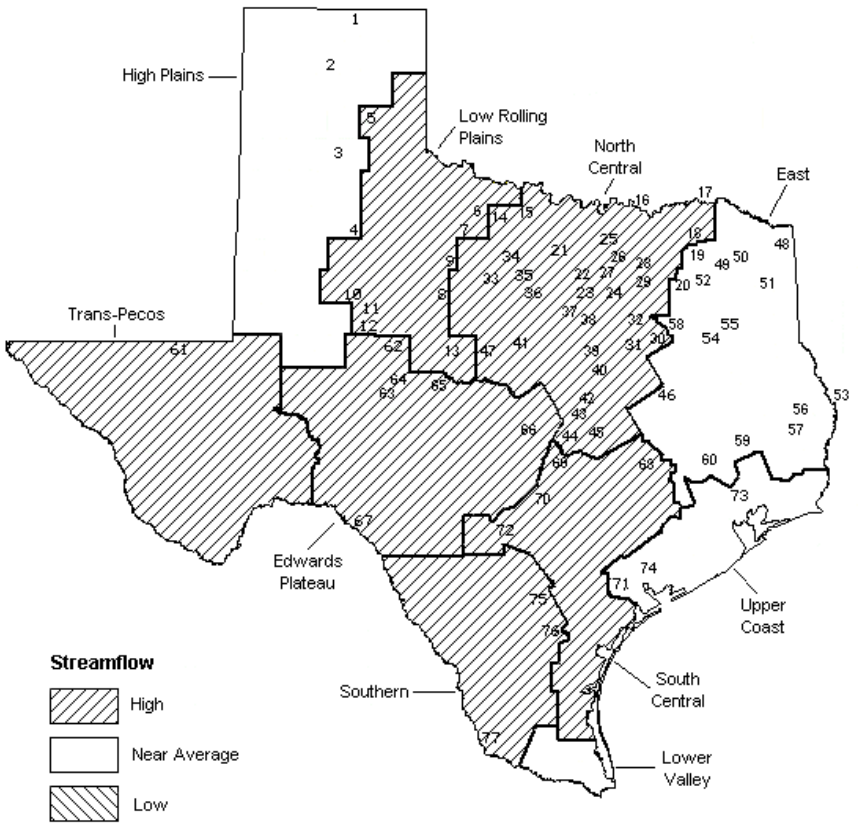
PO BOX 13231 • 1700 N. Congress Avenue • Austin, TX 78711-3231
Telephone (512) 463-7847 • Telefax (512) 475-2053 • 1-800-RELAYTX (for the hearing impaired)

STREAMFLOW

Of 29 reporting index stations in December, computed 30-day mean flows are high (5% - 30% exceedance) at 16 stations, and near normal (30% - 70% exceedance) at 13 stations. In comparison to November, flows have increased at 5 index stations and decreased at 24 stations.

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

DECEMBER 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 Dec. 2004 (acre-feet)	(%)	Change since Late November 2004 (acre-feet)	(%)	Change since Late December 2003 (acre-feet)	(%)
HIGH PLAINS								
Palo Duro Reservoir	1	60,900	4,430	7	-380	-1	1,630	3
Lake Meredith (Texas)	2	500,000	166,190	33	2,190	0	28,480	6
Lake Meredith (Texas and Oklahoma)	(2)	779,560	166,190	21	2,190	0	28,480	4
MacKenzie Reservoir	3	46,250	10,030	22	-30	0	4,240	9
White River Lake	4	31,850	9,800	31	-100	0	4,390	14
TOTAL		639,000	190,450	30	1,680	0	38,740	6
LOW ROLLING PLAINS								
Greenbelt Reservoir	5	58,200	22,680	39	-20	0	-980	-2
Lake Kemp	6	319,600	246,380	77	2,920	1	79,400	25
Miller's Creek Reservoir	7	27,890	21,320	76	-210	-1	9,510	34
Fort Phantom Hill Reservoir	8	70,030	67,260	96	-1,580	-2	38,340	55
Lake Stamford	9	52,700	36,200	69	-440	-1	4,910	9
Lake J. B. Thomas	10	202,300	62,060	31	-300	0	41,160	20
Lake Colorado City	11	30,800	30,800	100	0	0	10,590	34
Champion Creek Reservoir	12	41,600	4,960	12	30	0	1,620	4
Hords Creek Lake	13	8,600	7,850	91	380	4	5,440	63
TOTAL		811,720	499,510	62	780	0	189,990	23
NORTH CENTRAL								
Lake Kickapoo	14	106,000	73,590	69	-1,000	-1	13,910	13
Lake Arrowhead	15	262,100	190,530	73	0	0	72,640	28
Lake Texoma	16	2,722,300	2,617,550	96	-104,750	-4	451,270	17
Pat Mayse Lake	17	124,500	119,800	96	3,210	3	16,560	13
Cooper Lake	18	273,000	213,020	78	10,680	4	0	0
Lake Sulphur Springs	19	17,710	17,710	100	0	0	2,110	12
Lake Tawakoni	20	936,200	882,500	94	-11,900	-1	100,400	11
Bridgeport Reservoir	21	374,830	345,000	92	0	0	119,000	32
Eagle Mountain Reservoir	22	178,380	173,000	97	-400	0	34,200	19
Benbrook Lake	23	88,200	86,620	98	-1,580	-2	11,880	13
Joe Pool Lake	24	175,800	175,800	100	0	0	1,630	1
Ray Roberts Lake	25	798,760	798,760	100	0	0	76,510	10
Lewisville Lake	26	555,000	555,000	100	0	0	50,520	9
Grapevine Lake	27	187,700	183,390	98	-4,310	-2	34,150	18
Lavon Lake	28	443,800	443,800	100	10,320	2	112,730	25
Lake Ray Hubbard	29	413,420	401,600	97	-3,900	-1	67,000	16
Richland-Chambers Creek Lake	30	1,103,820	1,103,820	100	0	0	90,820	8
Navarro Mills Lake	31	55,810	55,810	100	0	0	6,990	13
Bardwell Lake	32	53,580	47,230	88	-6,350	-12	4,180	8
Hubbard Creek Reservoir	33	317,800	186,100	59	-650	0	64,860	20
Lake Graham	34	45,000	39,220	87	-510	-1	17,130	38
Possum Kingdom Lake	35	551,820	543,800	99	1,900	0	127,800	23
Lake Palo Pinto	36	27,650	26,340	95	-340	-1	13,310	48
Lake Granbury	37	135,680	133,900	99	1,900	1	1,800	1
Lake Pat Cleburne	38	25,300	25,300	100	0	0	5,390	21
Whitney Lake	39	622,800	579,490	93	-43,310	-7	143,150	23
Waco Lake	40	144,500	144,500	100	0	0	0	0
Proctor Lake	41	55,590	55,590	100	0	0	7,630	14
Belton Lake	42	434,500	434,500	100	0	0	4,100	1
Stillhouse Hollow Lake	43	226,060	226,060	100	0	0	7,500	3
Lake Georgetown	44	37,010	37,010	100	0	0	15,440	42
Granger Lake	45	54,280	54,280	100	0	0	8,120	15
Lake Limestone	46	215,750	212,850	99	-2,900	-1	12,150	6
Lake Brownwood	47	143,400	133,510	93	-3,830	-3	6,520	5
TOTAL		11,908,050	11,316,980	95	-157,720	-1	1,701,400	14

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

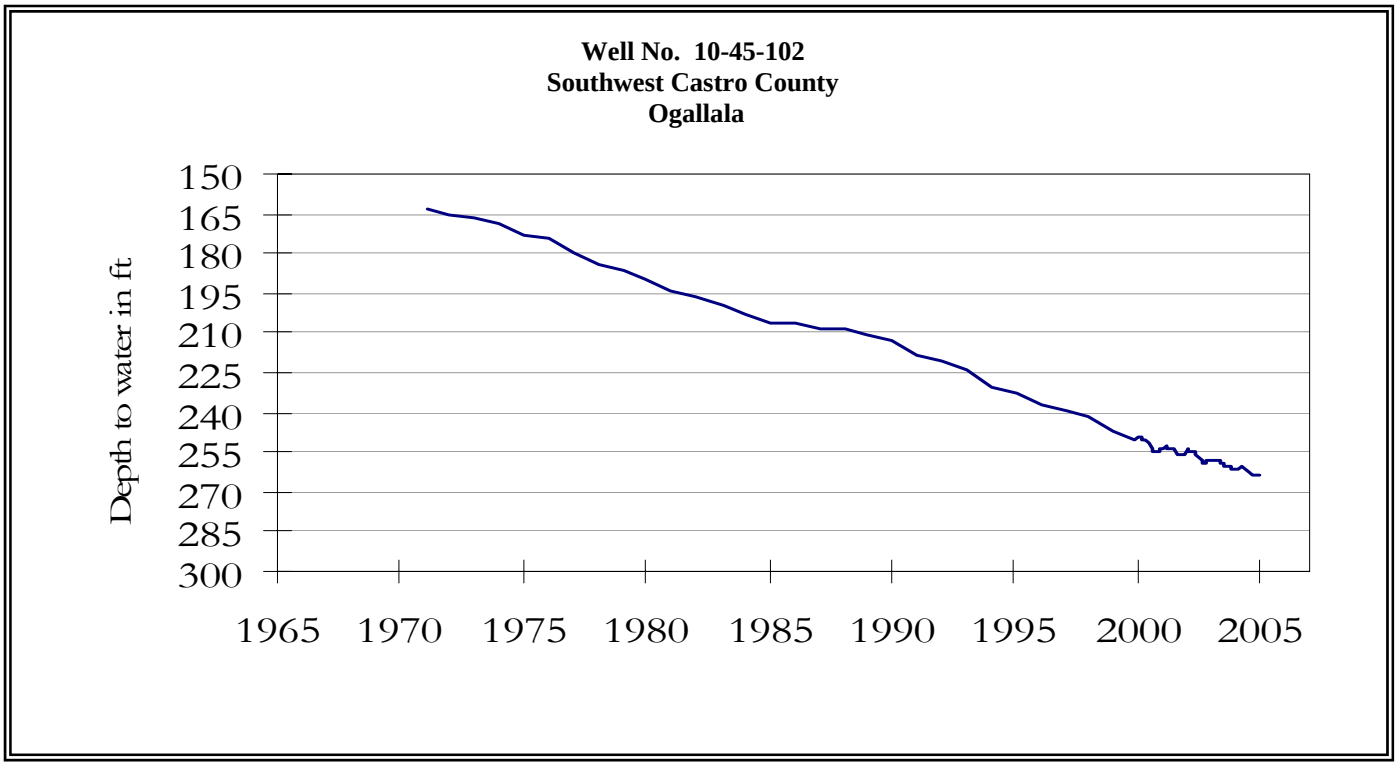
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late Dec. 2004 (acre-feet)	(%)	Change since Late November 2004 (acre-feet)	(%)	Change since Late December 2003 (acre-feet)	(%)
EAST								
Wright Patman Lake	48	142,700	142,700	100	0	0	0	0
Lake Cypress Springs	49	66,800	65,430	98	850	1	1,960	3
Lake Bob Sandlin	50	202,300	195,200	96	600	0	15,700	8
Lake O' the Pines	51	252,000	248,840	99	-3,160	-1	25,900	10
Lake Fork Reservoir	52	635,200	635,200	100	0	0	61,800	10
Toledo Bend Reservoir	53	4,472,900	3,915,000	88	-314,000	-7	157,000	4
Lake Palestine	54	411,300	411,300	100	2,510	1	30,620	7
Lake Tyler	55	73,700	73,700	100	0	0	5,920	8
Sam Rayburn Reservoir	56	2,876,300	2,876,300	100	0	0	480,090	17
B. A. Steinhagen Lake	57	94,200	83,220	88	-10,980	-12	1,690	2
Cedar Creek Reservoir	58	637,050	635,300	100	-1,750	0	84,600	13
Lake Livingston	59	1,750,000	1,744,000	100	-6,000	0	-6,000	0
Lake Conroe	60	429,900	416,600	97	-5,100	-1	-1,200	0
TOTAL		12,044,350	11,442,790	95	-337,030	-3	858,080	7
TRANS-PECOS								
Red Bluff Reservoir	61	307,000	117,350	38	2,010	1	61,950	20
TOTAL		307,000	117,350	38	2,010	1	61,950	20
EDWARDS PLATEAU								
E. V. Spence Reservoir	62	488,760	78,940	16	-140	0	33,500	7
Twin Buttes Reservoir	63	177,800	27,020	15	4,480	3	22,670	13
O.C. Fisher Lake	64	119,200	7,360	6	-260	0	4,390	4
O. H. Ivie Reservoir	65	554,340	234,100	42	4,000	1	38,340	7
Lake Buchanan	66	896,980	896,980	100	0	0	65,590	7
Amistad Reservoir (Texas)	67	1,771,030	2,407,000	136	85,000	5	1,207,000	68
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	2,935,000	93	126,000	4	1,409,000	45
TOTAL		4,008,110	3,651,400	91	93,080	2	1,371,490	34
SOUTH CENTRAL								
Somerville Lake	68	155,060	155,060	100	0	0	3,370	2
Lake Travis	69	1,144,100	1,144,100	100	0	0	201,300	18
Canyon Lake	70	385,600	382,570	99	-3,030	-1	4,540	1
Coleto Creek Reservoir	71	35,060	31,880	91	-160	0	140	0
Medina Lake	72	254,000	254,000	100	0	0	29,100	11
TOTAL		1,973,820	1,967,610	100	-3,190	0	238,450	12
UPPER COAST								
Lake Houston	73	128,860	128,860	100	0	0	0	0
Lake Texana	74	157,900	155,950	99	3,120	2	9,630	6
TOTAL		286,760	284,810	99	3,120	1	9,630	3
SOUTHERN								
Choke Canyon Reservoir	75	695,260	692,000	100	-2,000	0	12,000	2
Lake Corpus Christi	76	241,240	241,240	100	0	0	1,340	1
Falcon Reservoir (Texas)	77	1,555,120	693,000	45	25,000	2	177,000	11
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	1,792,000	68	27,000	1	644,000	24
TOTAL		2,491,620	1,626,240	65	23,000	1	190,340	8
STATE TOTAL		34,470,430	31,097,140	90	-374,270	-1	4,660,070	14

Note:

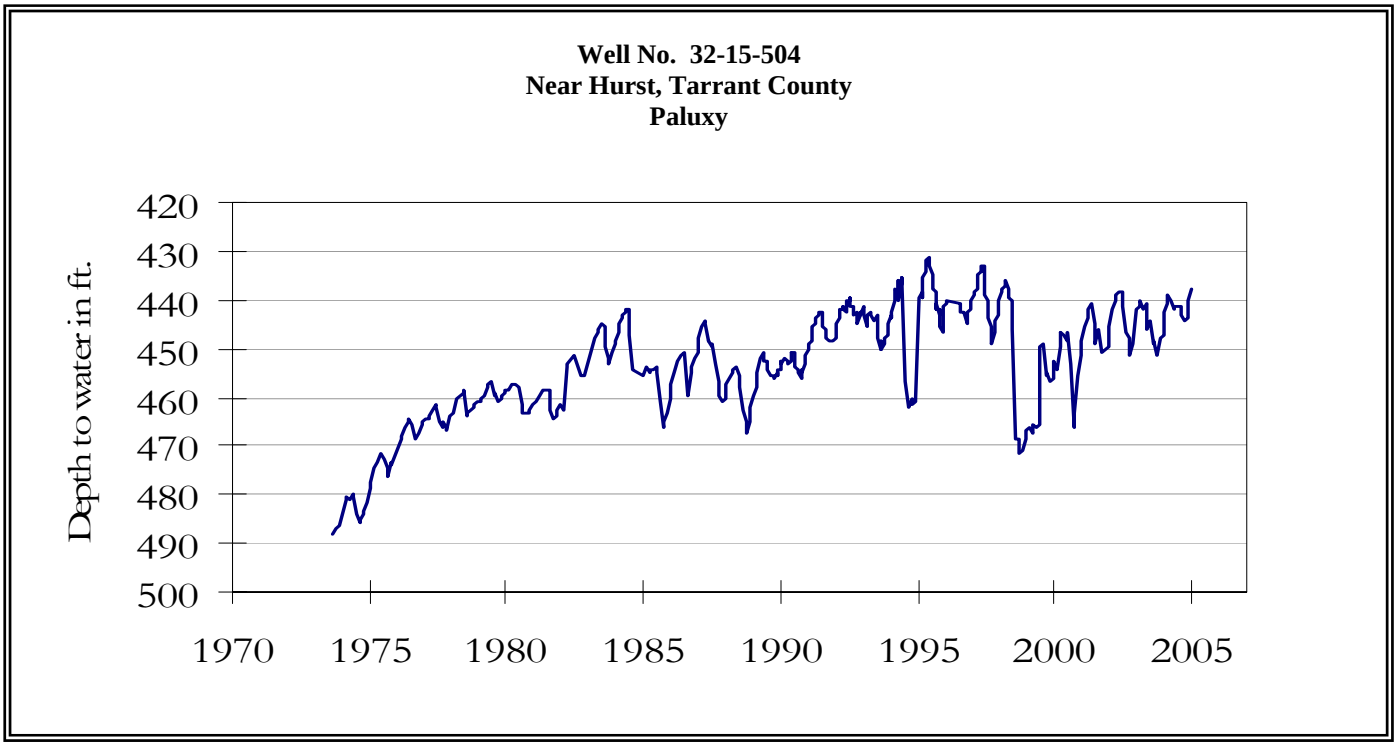
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included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

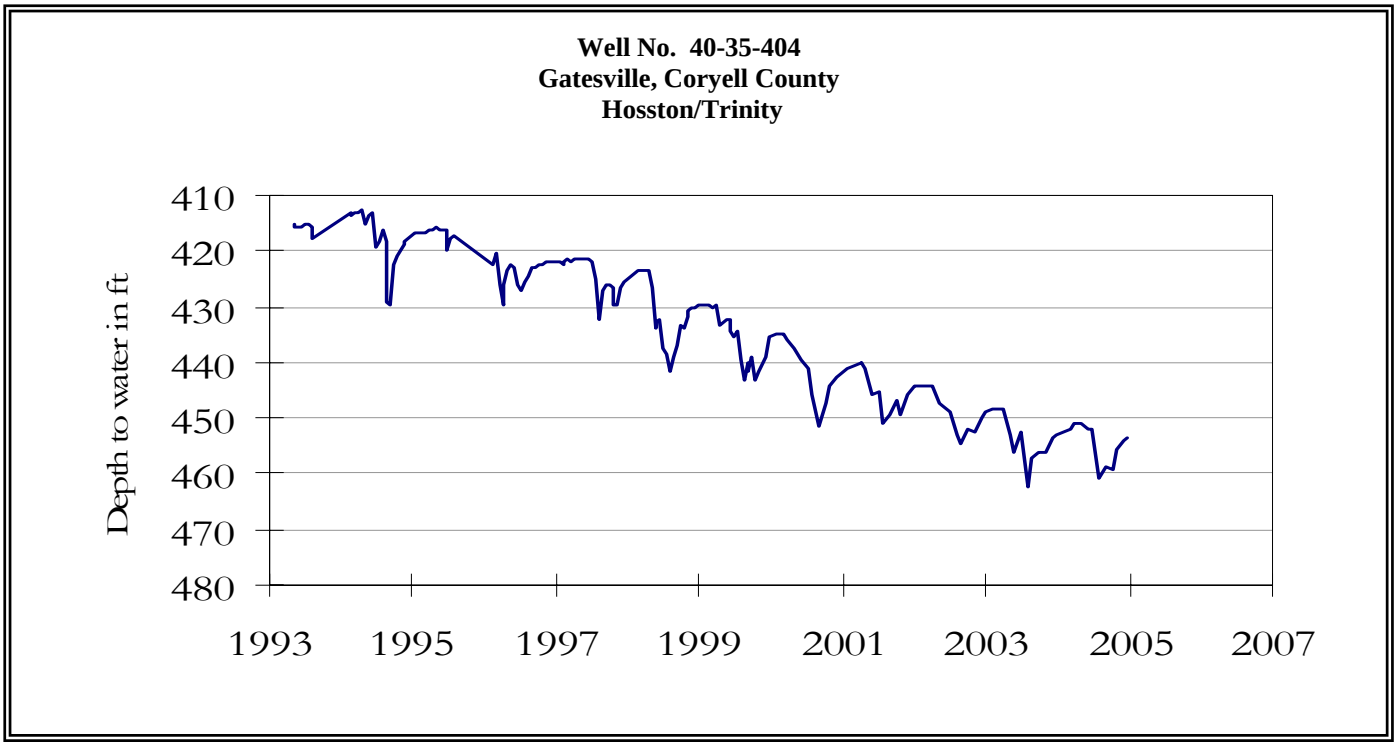
DECEMBER GROUND WATER LEVELS IN OBSERVATION WELLS



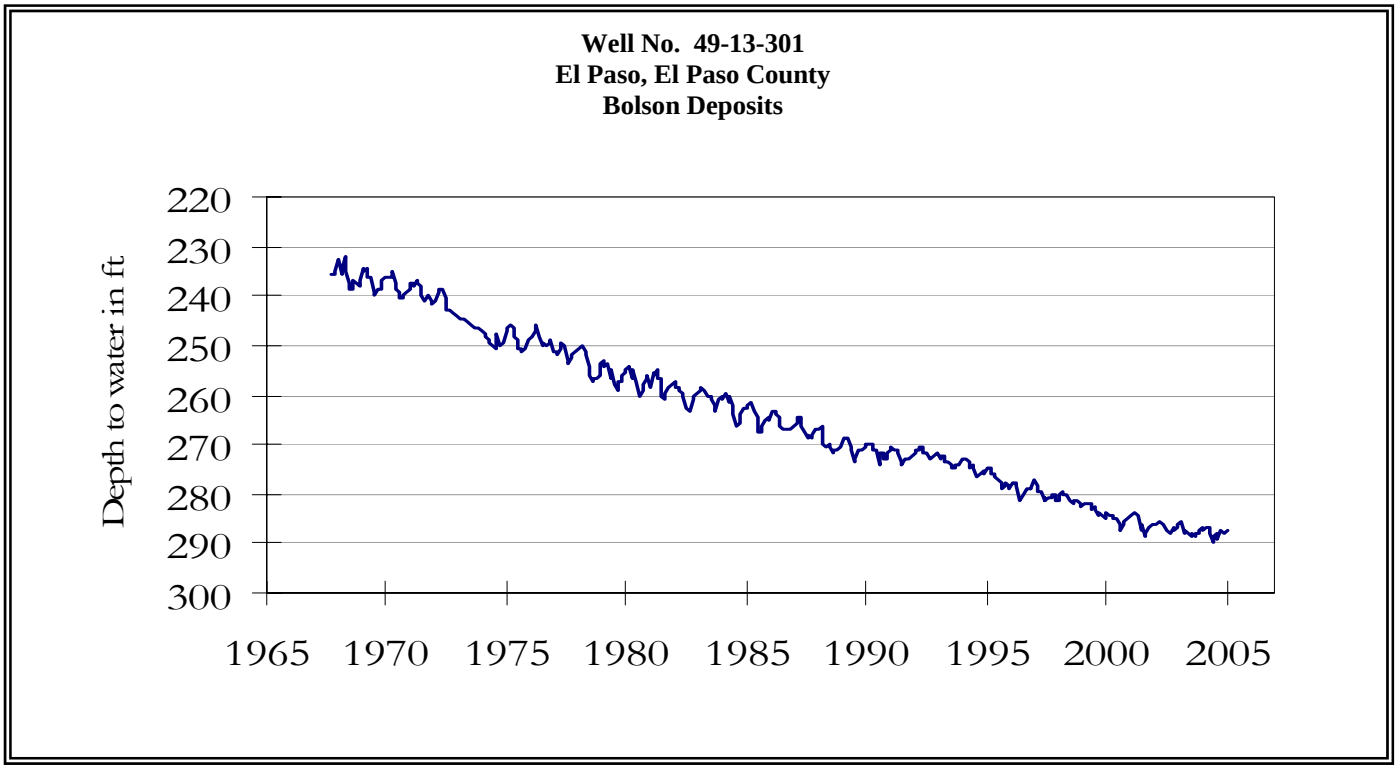
The late December water-level measurement in this Ogallala aquifer well, elevation 3,816 feet above sea level, was 263.69 feet below land surface. This measurement was 0.13 foot above last month's measurement, 2.52 feet below last year's measurement, and 107.69 feet below the initial measurement recorded in 1968.



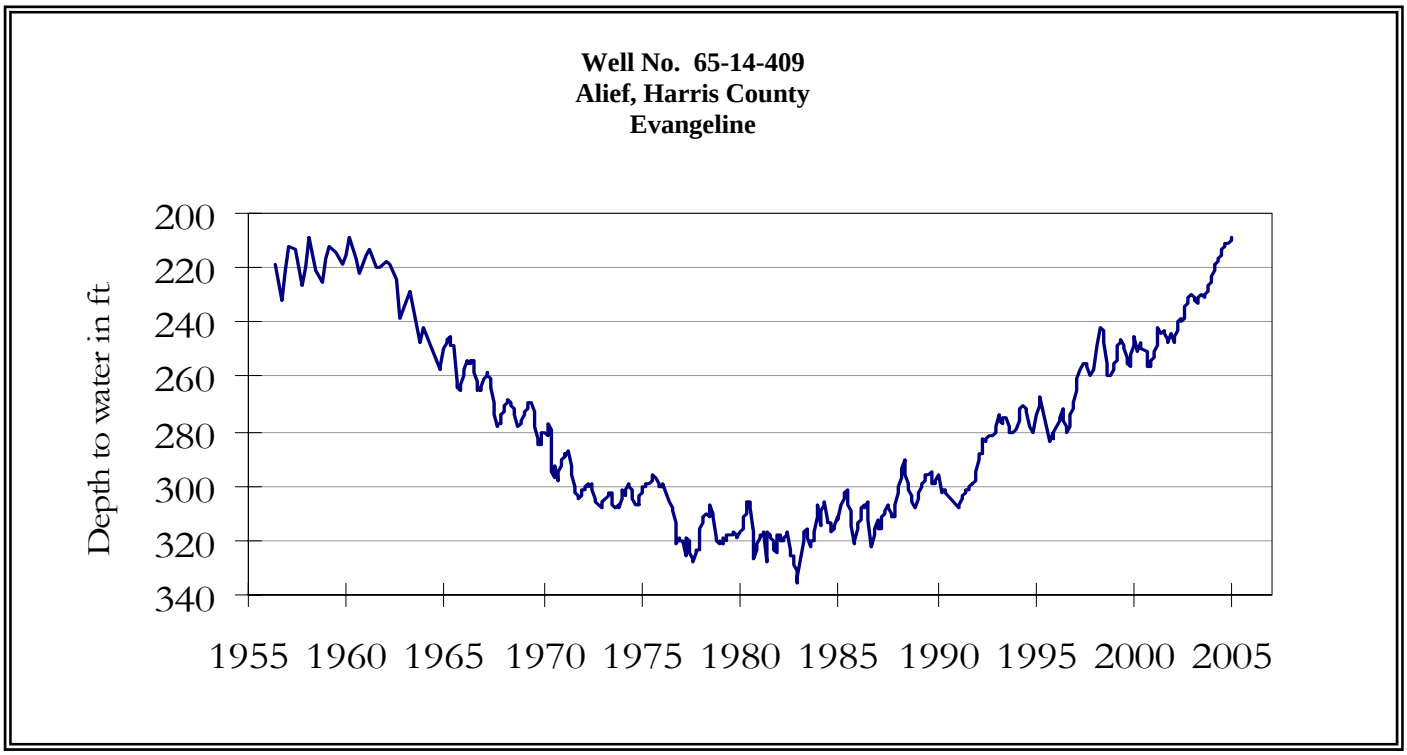
The late December water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 437.50 feet below land surface. This measurement was 2.68 foot above last month's measurement, 4.80 feet above last year's measurement, and 44.11 feet below the initial measurement recorded in 1953.



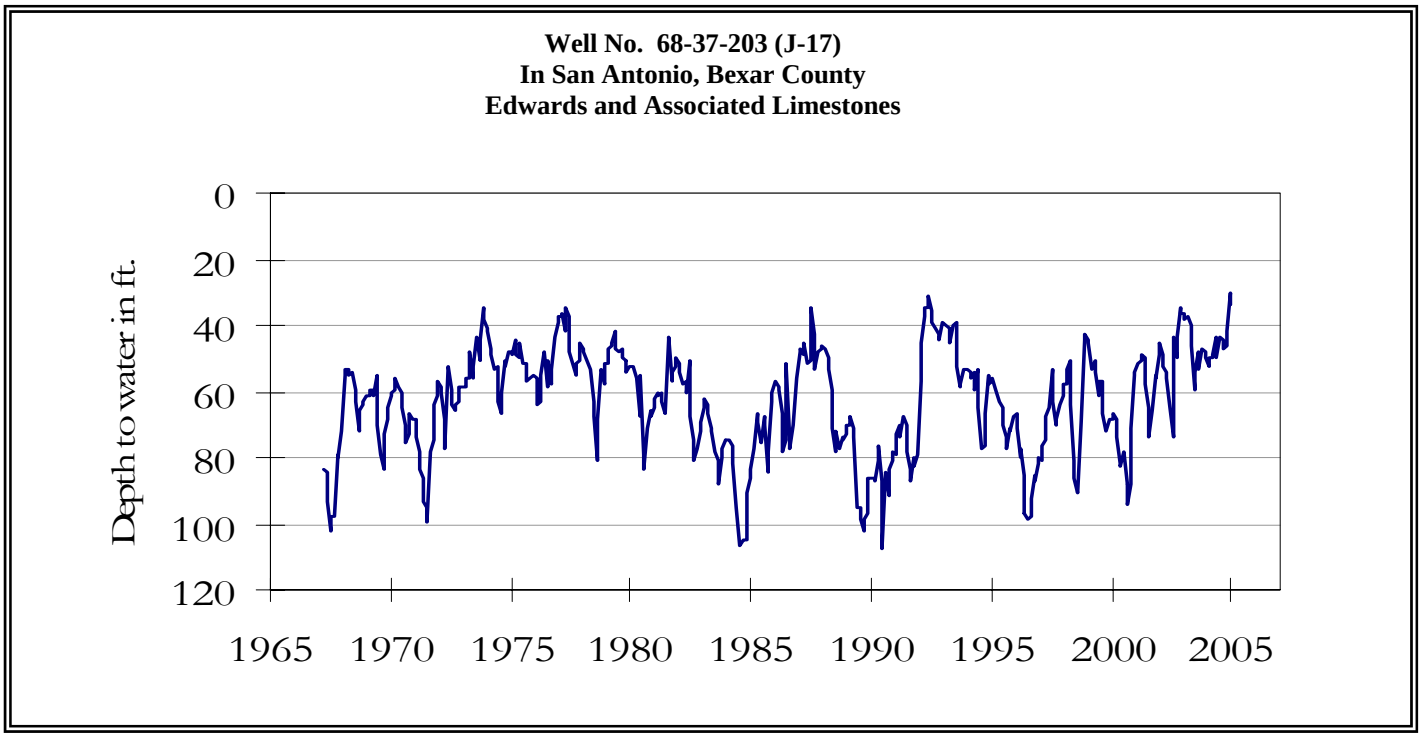
The late December water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 453.44 feet below land surface. This water level was 0.63 feet above last month's measurement, 0.44 foot below last year's measurement, and 161.44 feet below the initial measurement recorded in 1955.



The late December water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 287.32 feet below land surface. This was 0.36 foot above last month's measurement, 0.08 foot above last year's measurement, and 55.42 feet below the initial measurement recorded in 1964.

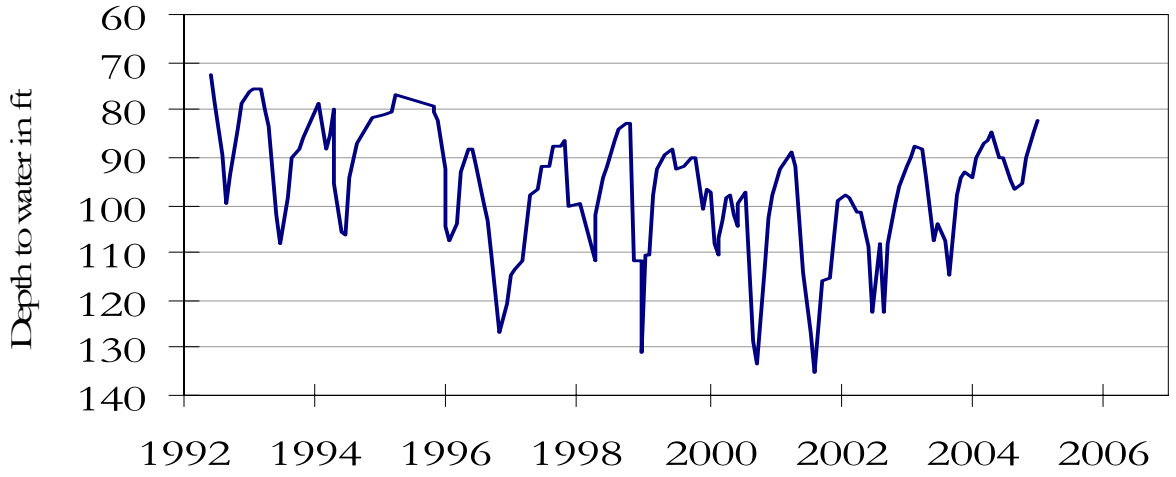


The late December water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 208.77 feet below land surface. This was 0.88 foot above last month's measurement, 14.33 feet above last year's measurement, and 105.54 feet below the initial measurement recorded in 1947.



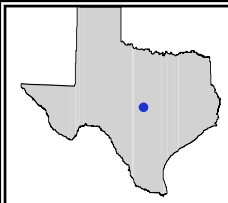
The late December water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 33.93 feet below land surface. This was 4.15 feet below last month's measurement, 18.07 feet above last year's measurement, and 25.69 feet above the initial measurement recorded in 1962.

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



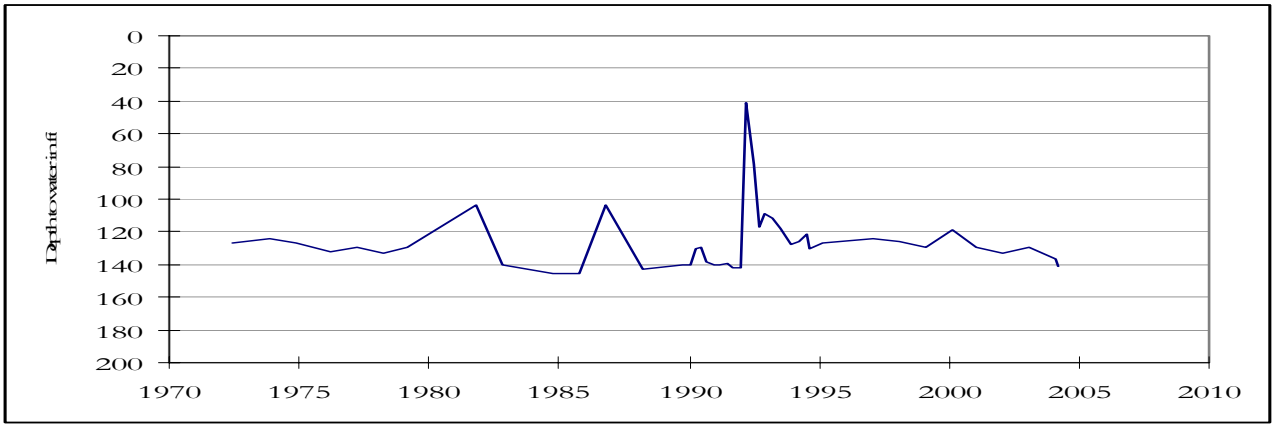
The late December water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 82.03 feet below land surface. This measurement was 2.60 feet above last month's measurement, 11.97 feet above last year's measurement, and 0.78 feet below the initial measurement recorded 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. 4151701
San Saba County



This water level observation well, used for domestic and stock needs, located 3.5 miles south of San Saba at an elevation of 1,354 feet ASL, was completed in the Ellenburger Aquifer. Water level data do not indicate supply problems due to a small amount of pumpage compared to the annual effective recharge and recoverable storage.

December 31, 2004
Water levels increased in six key monitoring wells since the beginning of December, ranging from 0.13 feet in Well No. 10-45-102, South Castro County (Ogallala aquifer) to 2.86 feet in Well No. 32-15-504, Near Hurst, Tarrant County (Paluxy formation). Water levels declined 4.15 feet in Well No. 68-37-203 (J-17) in San Antonio, Bexar County (Edwards and Associated Limestones) to 33.93 feet below the land surface. This level is approximately forty-six (46) feet above the Stage I critical water management criteria.

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