Texas Water Development Board

WATER Conditions

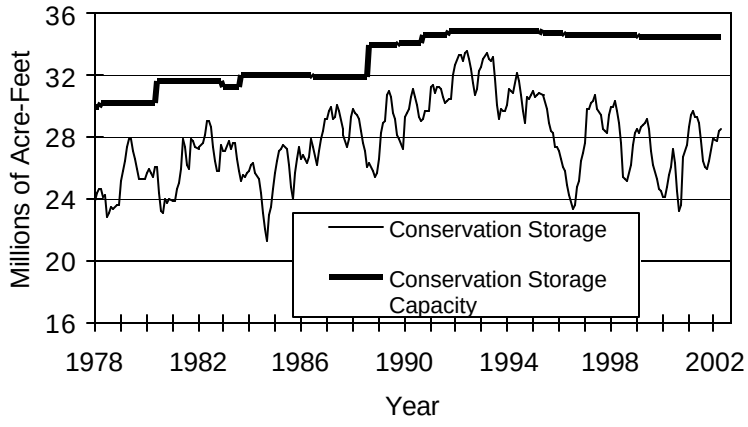
RESERVOIR STORAGE

April 2002

Near the end of April, the 77 reservoirs monitored for this report held 28.5 million acre-feet in conservation storage, or 82.8 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 very slightly during the month (+0.3% of conservation storage capacity). Compared to April 2001, storage is down 0.77 million acre-feet (-2.2%).

Storage in the East (99%) and South Central (97%) is near capacity, while the High Plains (40%) Low Rolling Plains (38%), Trans-Pecos (14%), Southern (26%) and Edwards Plateau (48%) Regions remained low. The storage in the Upper Coast Region (85%) dropped quite significantly due to a 30% drop in the contents of Lake Houston. Storage is at 100% in 28 reservoirs, four less than last month. Compared to this time last year, storage decreased significantly in the High Plains (-19%), Edwards Plateau (-11%) and Upper Coast (-13%) Regions.

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.

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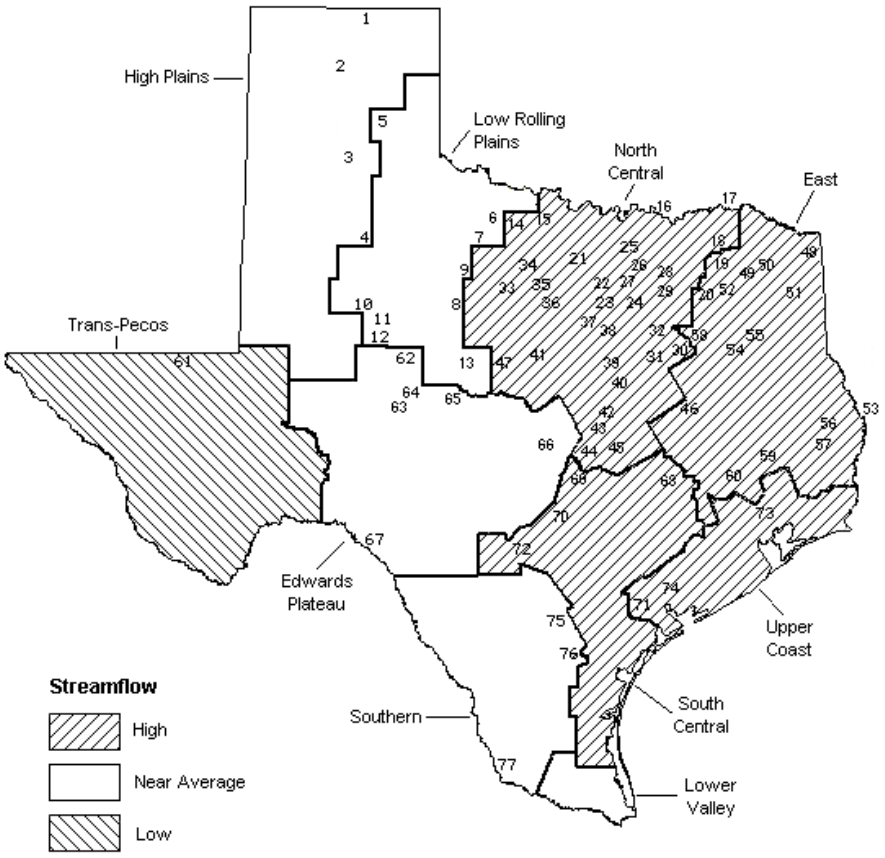
STREAMFLOW

Of 29 reporting index stations in April, computed 30-day mean flows were high (5% - 30% exceedance) at 15 stations, near normal (30% - 70% exceedance) at 9 stations, and low (70% - 95% exceedance) at 5 stations. In comparison to March, flows increased at 20 index stations, decreased at 7 and remained unchanged at 2.

On a regional basis, flows in April were high in the North Central, East Texas, South Central and Upper Coast Regions, low in the Trans-Pecos Region and near normal everywhere else.

APRIL 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 April 2002 (acre-feet)	(%)	Change since Late March 2002 (acre-feet)	(%)	Change since Late April 2001 (acre-feet)	(%)
HIGH PLAINS								
Palo Duro Reservoir	1	60,900	4,890	8	-350	-1	-6,990	-11
Lake Meredith (Texas)	2	500,000	237,000	47	-3,500	-1	-109,400	-22
Lake Meredith (Texas and Oklahoma)	(2)	779,560	237,000	30	-3,500	0	-109,400	-14
MacKenzie Reservoir	3	46,250	8,100	18	-110	0	-310	-1
White River Lake	4	31,850	7,180	23	210	1	-4,170	-13
TOTAL		639,000	257,170	40	-3,750	-1	-120,870	-19
LOW ROLLING PLAINS								
Greenbelt Reservoir	5	58,200	24,450	42	290	0	160	0
Lake Kemp	6	319,600	160,000	50	19,000	6	-32,800	-10
Miller's Creek Reservoir	7	27,890	13,560	49	640	2	-90	0
Fort Phantom Hill Reservoir	8	70,030	30,390	43	-870	-1	-7,750	-11
Lake Stamford	9	52,700	37,470	71	4,320	8	20,530	39
Lake J. B. Thomas	10	202,300	20,840	10	-60	0	-2,120	-1
Lake Colorado City	11	30,800	18,300	59	-300	-1	-2,620	-9
Champion Creek Reservoir	12	41,600	2,100	5	-40	0	-810	-2
Hords Creek Lake	13	8,600	2,870	33	-100	-1	-1,580	-18
TOTAL		811,720	309,980	38	22,880	3	-27,080	-3
NORTH CENTRAL								
Lake Kickapoo	14	106,000	83,900	79	12,600	12	-15,110	-14
Lake Arrowhead	15	262,100	162,700	62	12,800	5	-37,500	-14
Lake Texoma	16	2,722,300	2,637,000	97	118,000	4	149,000	5
Pat Mayse Lake	17	124,500	124,500	100	0	0	0	0
Cooper Lake	18	273,000	273,000	100	0	0	0	0
Lake Sulphur Springs	19	17,710	17,710	100	600	3	0	0
Lake Tawakoni	20	936,200	905,200	97	-31,000	-3	-31,000	-3
Bridgeport Reservoir	21	374,830	304,300	81	10,900	3	-70,530	-19
Eagle Mountain Reservoir	22	178,380	177,400	99	9,900	6	-600	0
Benbrook Lake	23	88,200	86,140	98	-2,060	-2	-1,160	-1
Joe Pool Lake	24	175,800	175,800	100	0	0	0	0
Ray Roberts Lake	25	798,760	798,760	100	0	0	0	0
Lewisville Lake	26	555,000	555,000	100	0	0	0	0
Grapevine Lake	27	187,700	187,700	100	0	0	0	0
Lavon Lake	28	443,800	443,800	100	0	0	0	0
Lake Ray Hubbard	29	413,420	412,700	100	-720	0	1,600	0
Richland-Chambers Creek Lake	30	1,103,820	1,103,820	100	0	0	0	0
Navarro Mills Lake	31	55,810	55,810	100	0	0	0	0
Bardwell Lake	32	53,580	48,030	90	-5,190	-10	1,560	3
Hubbard Creek Reservoir	33	317,800	127,000	40	6,800	2	-30,800	-10
Lake Graham	34	45,000	34,140	76	1,160	3	-10,720	-24
Possum Kingdom Lake	35	551,820	490,000	89	36,400	7	-40,700	-7
Lake Palo Pinto	36	27,650	23,970	87	-460	-2	-2,670	-10
Lake Granbury	37	135,680	132,400	98	1,000	1	2,100	2
Lake Pat Cleburne	38	25,300	25,300	100	0	0	0	0
Whitney Lake	39	622,800	619,700	100	10,700	2	-3,100	0
Waco Lake	40	144,500	144,500	100	0	0	0	0
Proctor Lake	41	55,590	37,990	68	-720	-1	-17,600	-32
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	36,690	99	-320	-1	-320	-1
Granger Lake	45	54,280	54,280	100	0	0	0	0
Lake Limestone	46	215,750	215,750	100	0	0	4,250	2
Lake Brownwood	47	143,400	106,800	74	-1,400	-1	-23,900	-17
TOTAL		11,908,050	11,262,350	95	178,990	2	-127,200	-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 April 2002 (acre-feet)	(%)	Change since Late March 2002 (acre-feet)	(%)	Change since Late April 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	0	0	0	0
Lake O' the Pines	51	252,000	252,000	100	0	0	0	0
Lake Fork Reservoir	52	635,200	635,200	100	0	0	0	0
Toledo Bend Reservoir	53	4,472,900	4,419,000	99	101,000	2	34,000	1
Lake Palestine	54	411,300	411,300	100	0	0	0	0
Lake Tyler	55	73,700	73,700	100	0	0	0	0
Sam Rayburn Reservoir	56	2,876,300	2,876,300	100	0	0	0	0
B. A. Steinhagen Lake	57	94,200	54,250	58	-1,200	-1	-18,330	-19
Cedar Creek Reservoir	58	637,050	635,900	100	-1,150	0	1,800	0
Lake Livingston	59	1,750,000	1,730,000	99	-20,000	-1	-20,000	-1
Lake Conroe	60	429,900	412,300	96	-5,300	-1	-1,200	0
TOTAL		12,044,350	11,911,750	99	73,350	1	-3,730	0
TRANS-PECOS								
Red Bluff Reservoir	61	307,000	41,780	14	250	0	-19,590	-6
TOTAL		307,000	41,780	14	250	0	-19,590	-6
EDWARDS PLATEAU								
E. V. Spence Reservoir	62	488,760	52,540	11	-2,110	0	-26,920	-6
Twin Buttes Reservoir	63	177,800	8,730	5	-170	0	-3,200	-2
O.C. Fisher Lake	64	119,200	3,920	3	-220	0	-3,950	-3
O. H. Ivie Reservoir	65	554,340	240,700	43	-6,800	-1	-73,000	-13
Lake Buchanan	66	896,980	800,800	89	9,000	1	-47,100	-5
Amistad Reservoir (Texas)	67	1,771,030	832,000	47	-17,000	-1	-291,000	-16
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	981,000	31	-10,000	0	-338,000	-11
TOTAL		4,008,110	1,938,690	48	-17,300	0	-445,170	-11
SOUTH CENTRAL								
Somerville Lake	68	155,060	155,060	100	0	0	0	0
Lake Travis	69	1,144,100	1,099,000	96	-45,000	-4	-45,100	-4
Canyon Lake	70	385,600	382,300	99	1,100	0	-3,300	-1
Coleto Creek Reservoir	71	35,060	30,500	87	-290	-1	280	1
Medina Lake	72	254,000	244,000	96	-3,600	-1	2,300	1
TOTAL		1,973,820	1,910,860	97	-47,790	-2	-45,820	-2
UPPER COAST								
Lake Houston	73	128,860	90,530	70	-38,330	-30	-38,330	-30
Lake Texana	74	157,900	152,400	97	12,600	8	1,800	1
TOTAL		286,760	242,930	85	-25,730	-9	-36,530	-13

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

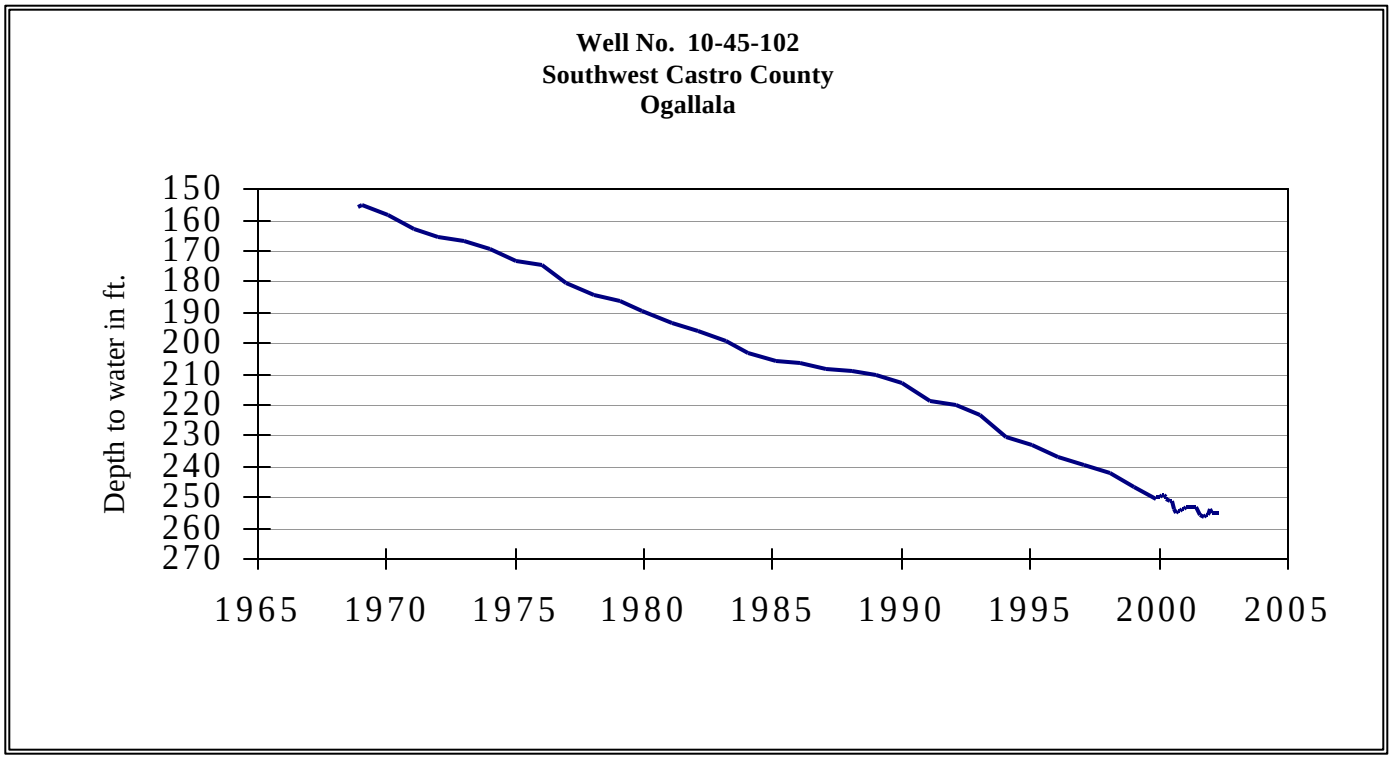
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late April 2002 (acre-feet)	(%)	Change since Late March 2002 (acre-feet)	(%)	Change since Late April 2001 (acre-feet)	(%)
SOUTHERN								
Choke Canyon Reservoir	75	695,260	263,000	38	-3,000	0	-2,000	0
Lake Corpus Christi	76	241,240	217,400	90	-8,400	-3	122,650	51
Falcon Reservoir (Texas)	77	1,555,120	169,000	11	-56,000	-4	-66,000	-4
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	265,000	10	-61,000	-2	-30,000	-1
TOTAL		2,491,620	649,400	26	-67,400	-3	54,650	2
STATE TOTAL		34,470,430	28,524,910	83	113,500	0	-771,340	-2

Note:

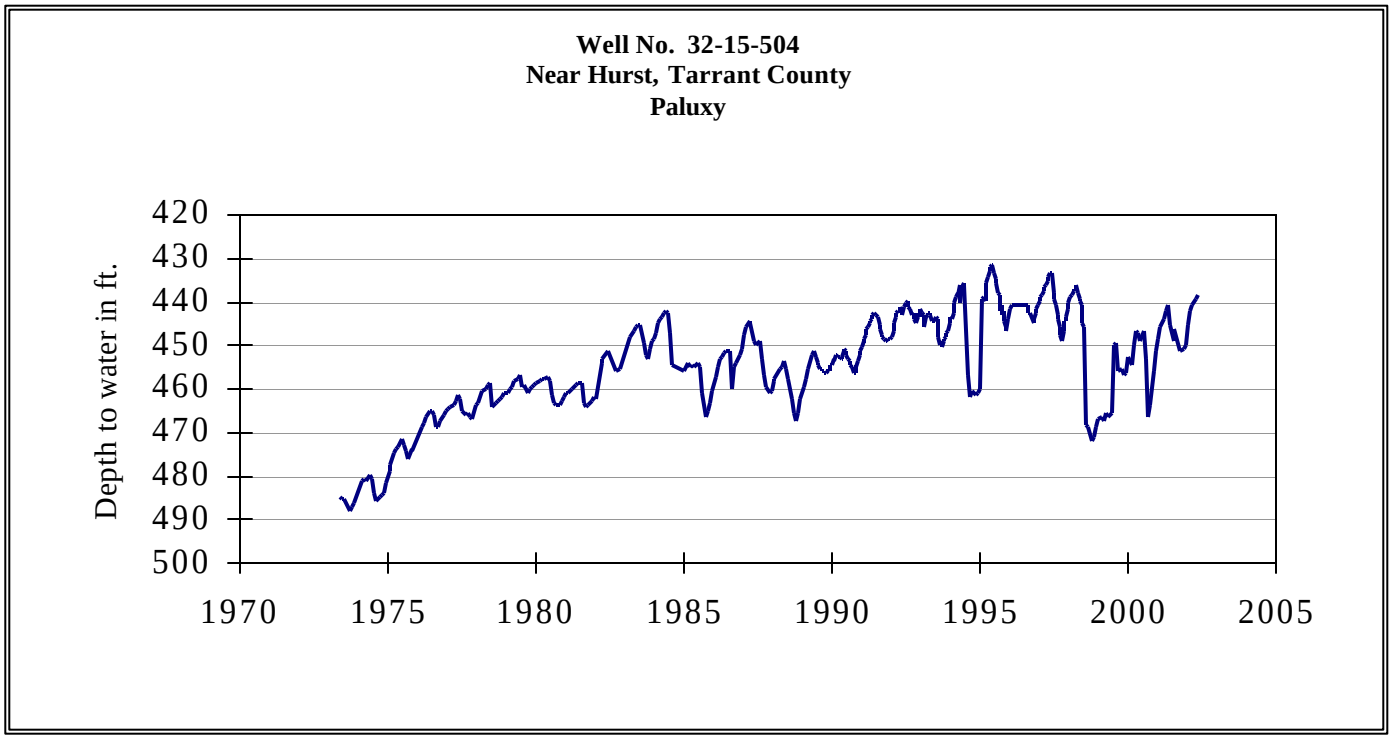
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included 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). Figures in parentheses for Lake Meredith represent the total conservation storage excluding 58,014 acre-feet of dead storage and are not included in State total. Preliminary figures are shown for the United States' share of conservation storage in International Amistad and International Falcon Reservoirs; the estimates may be subject to revision on completion of international water accounting. Texas (United States' share) and Mexico and are not included in State total.

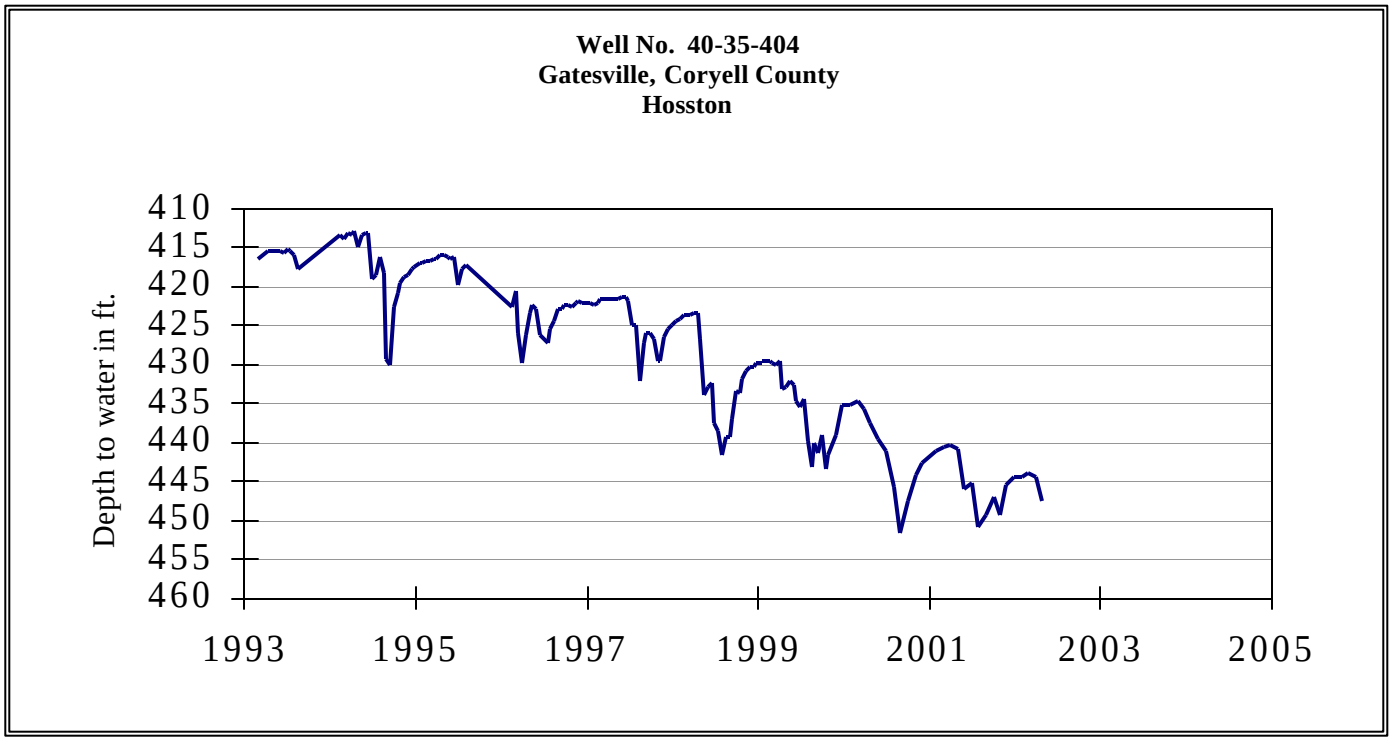
APRIL GROUND WATER LEVELS IN OBSERVATION WELLS



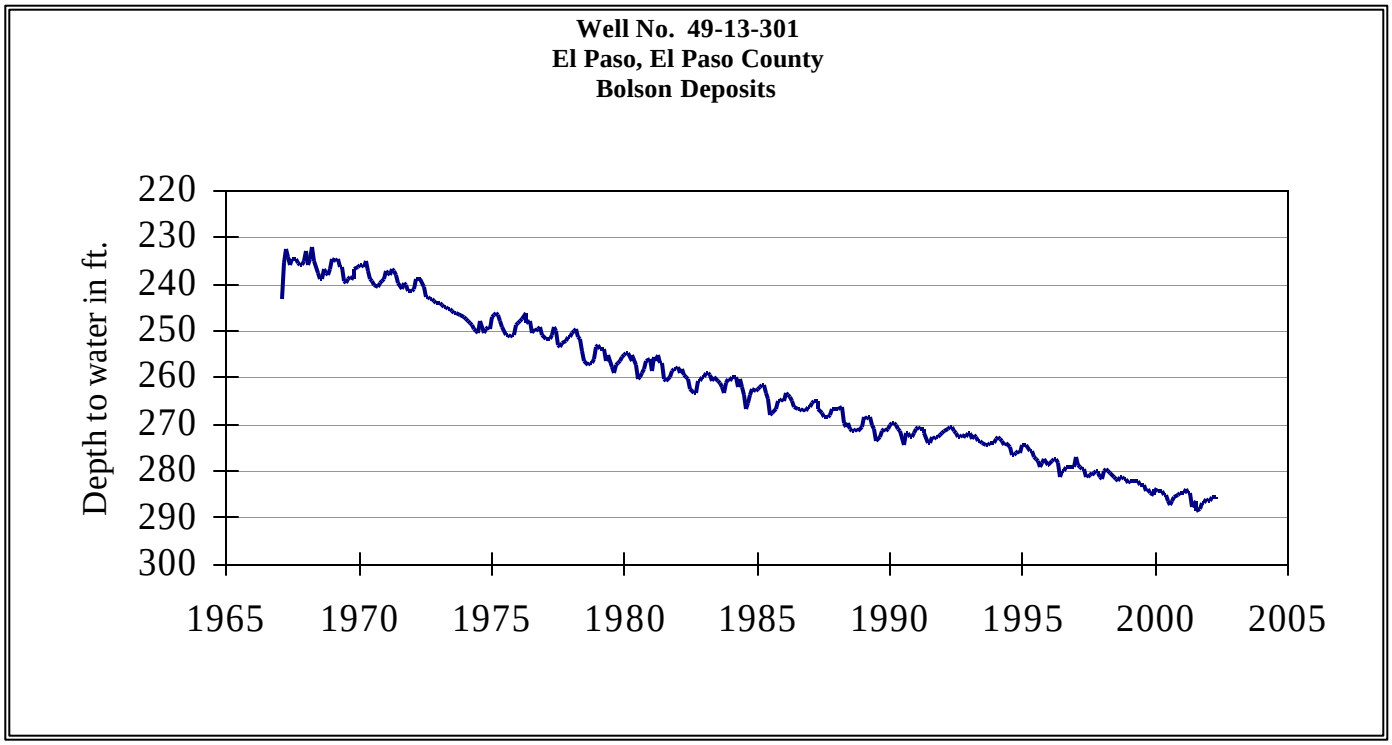
The late April water-level measurement in this Ogallala aquifer well, elevation 3,816 feet above sea level, was 255.32 feet below land surface. This measurement was 0.40 feet below last month's measurement, 1.85 feet below last year's measurement, and 99.32 feet below the initial measurement recorded in 1968.



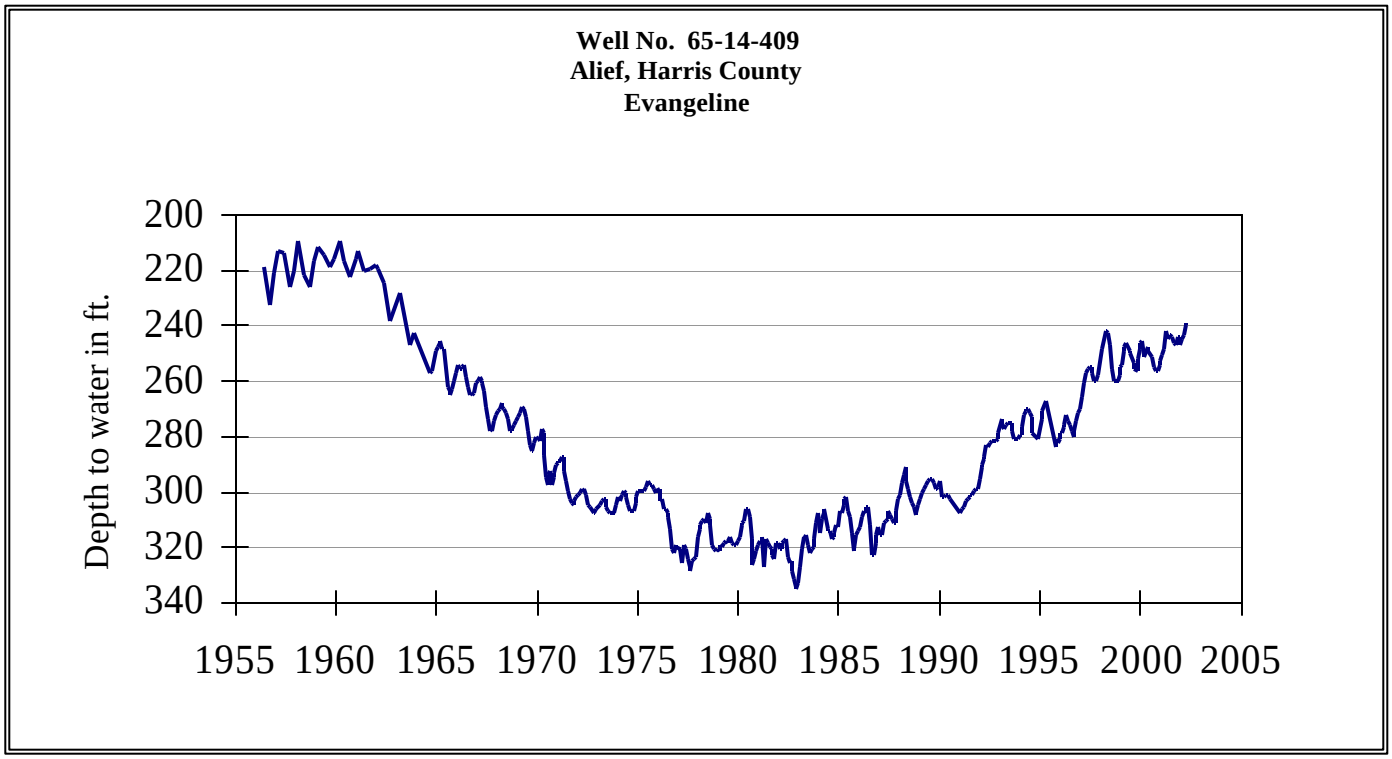
The late April water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 438.42 feet below land surface. This measurement was 0.79 feet above last month's measurement, 2.19 feet above last year's measurement, and 45.03 feet below the initial measurement recorded in 1953.



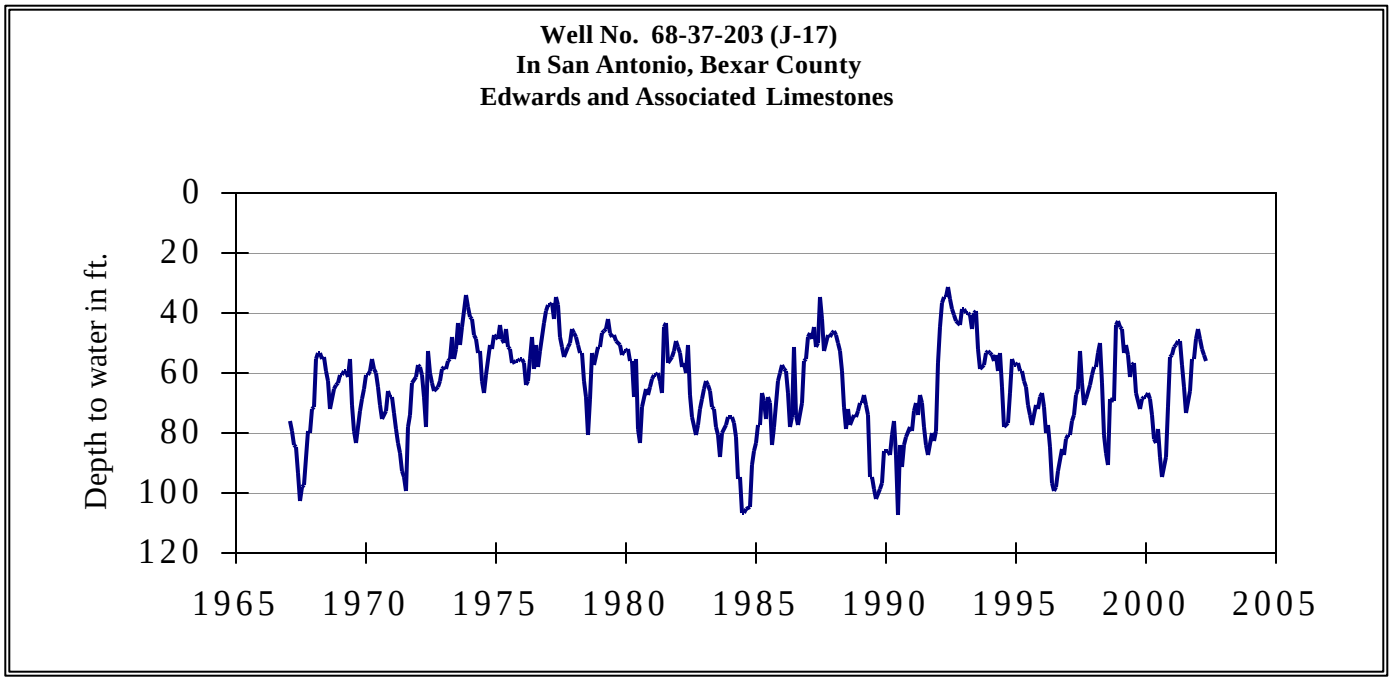
The late April water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 447.49 feet below land surface. This measurement was 3.04 feet below last month's measurement, 6.63 feet below last year's measurement, and 155.49 feet below the initial measurement recorded in 1955.



The late April water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 286.10 feet below land surface. This was 0.72 feet below last month's measurement, 1.46 feet below last year's measurement, and 54.20 feet below the initial measurement recorded in 1964.

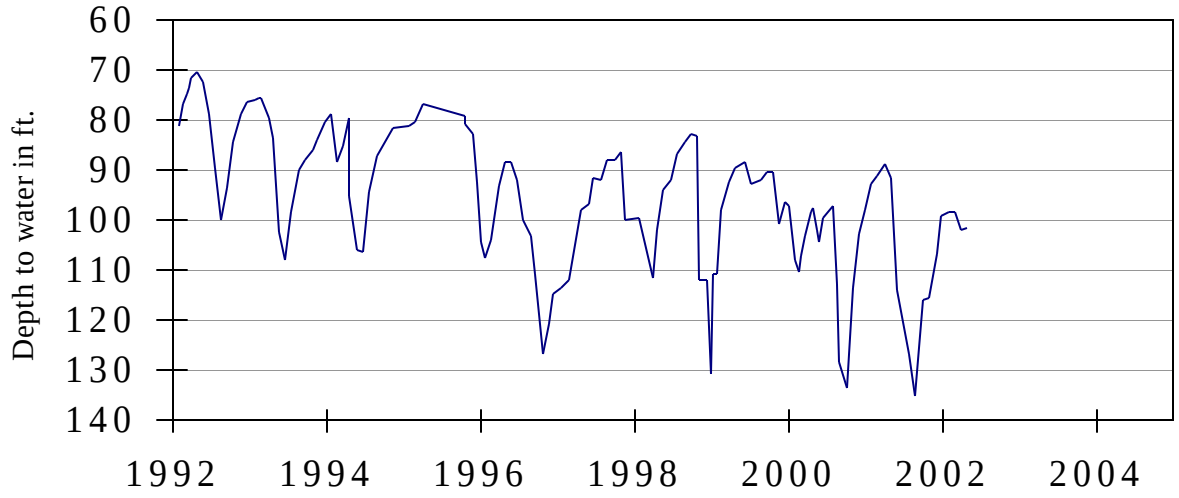


The late April water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 238.94 feet below land surface. This was 1.02 feet above last month's measurement, 5.68 feet above last year's measurement, and 135.71 feet below the initial measurement recorded in 1947.



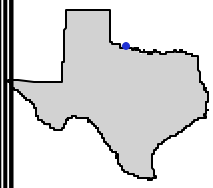
The late April water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 56.21 feet below land surface. This was 1.85 feet below last month's measurement, 6.50 feet below last year's measurement, and 3.41 feet above the initial measurement recorded in 1962.

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



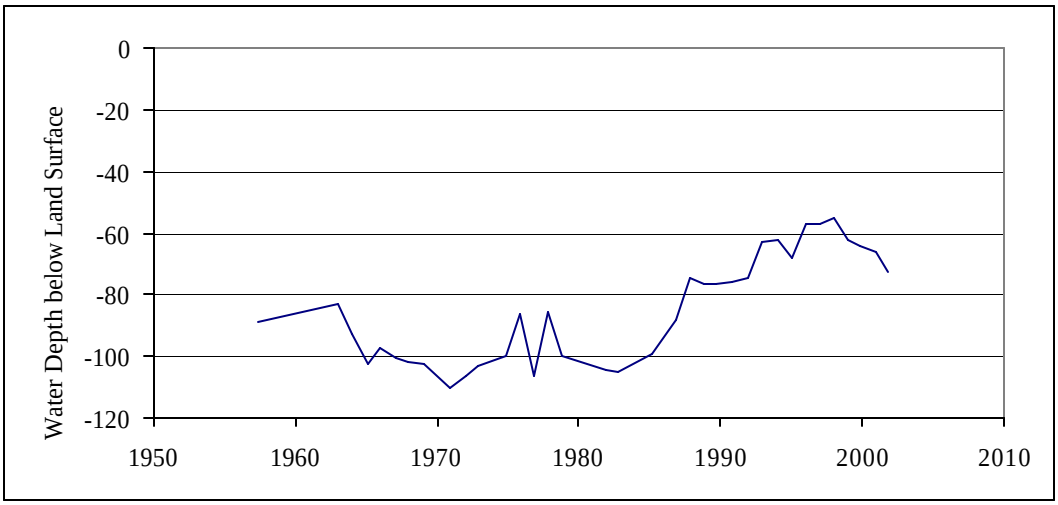
The late April water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 101.64 feet below land surface. This measurement was 0.13 feet above last month's measurement, 10.04 feet below last year's measurement, and 20.39 feet below the initial measurement recorded in 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. 1333501
Hardeman County



This unused observation well, at an elevation of 1628 feet, was completed in the Blaine aquifer at a depth of 200 feet. Groundwater in this part of the county (northwest Hardeman) is used primarily for irrigation. Improved irrigation practices have accounted for a general increase in water levels from the early 80s through the late 90s.

TEXAS WATER DEVELOPMENT BOARD
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