Texas Water Development Board

WATER Conditions

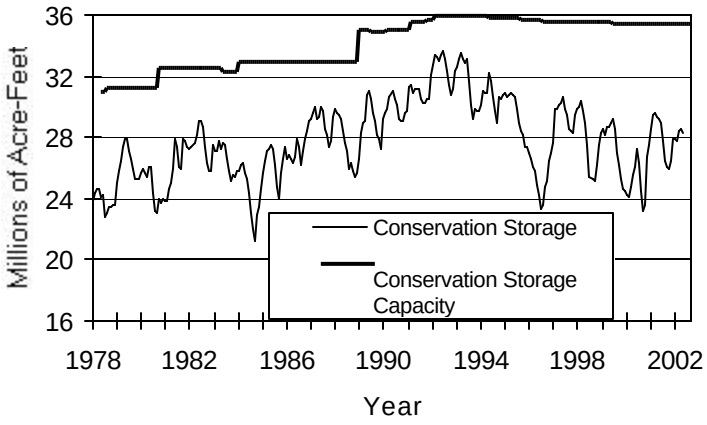
RESERVOIR STORAGE

May 2002

Near the end of May, the 77 reservoirs monitored for this report held 28.25 million acre-feet in conservation storage, or 82.0 percent of the conservation storage capacity of the State's major reservoirs. Statewide total storage is below normal for this time of year. Storage decreased slightly during the month (-0.8% of conservation storage capacity). Compared to the previous year, storage is down 0.98 million acre-feet (-2.8%).

Storage in the East (99%) and North Central (95%) is near capacity, while the High Plains (39%) Low Rolling Plains (39%), Trans-Pecos (13%), Southern (36%) and Edwards Plateau (44%) Regions remained low. Storage is at 100% in 28 reservoirs, the same as last month. Compared to this time last year, storage decreased significantly in the High Plains (-20%), Edwards Plateau (-13%) and South Central (-11%) 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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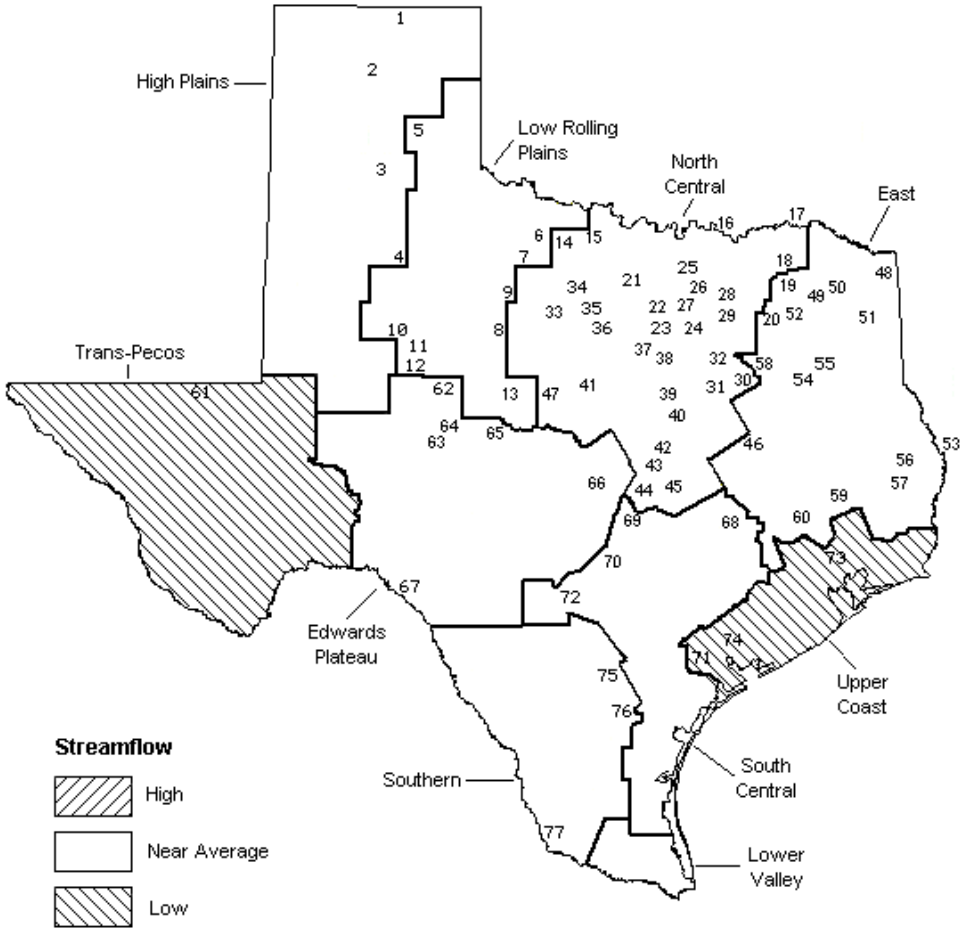
STREAMFLOW

Of 29 reporting index stations in May, computed 30-day mean flows were high (5% - 30% exceedance) at 3 stations, near normal (30% - 70% exceedance) at 16 stations, and low (70% - 95% exceedance) at 10 stations. In comparison to April, flows increased at 5 index stations, decreased at 23 and remained unchanged at 1.

On a regional basis, flows in May were low in the Trans-Pecos and Upper Coast Regions and near normal everywhere else.

MAY 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 May 2002 (acre-feet)	(%)	Change since Late April 2002 (acre-feet)	(%)	Change since Late May 2001 (acre-feet)	(%)
HIGH PLAINS								
Palo Duro Reservoir	1	60,900	4,730	8	-160	0	-5,410	-9
Lake Meredith (Texas)	2	500,000	227,000	45	-10,000	-2	-115,400	-23
Lake Meredith (Texas and Oklahoma)	(2)	779,560	227,000	29	-10,000	-1	-115,400	-15
MacKenzie Reservoir	3	46,250	7,700	17	-400	-1	-2,180	-5
White River Lake	4	31,850	6,770	21	-410	-1	-3,990	-13
TOTAL		639,000	246,200	39	-10,970	-2	-126,980	-20
LOW ROLLING PLAINS								
Greenbelt Reservoir	5	58,200	23,840	41	-610	-1	-2,960	-5
Lake Kemp	6	319,600	170,000	53	10,000	3	-36,100	-11
Miller's Creek Reservoir	7	27,890	15,450	55	1,890	7	-1,310	-5
Fort Phantom Hill Reservoir	8	70,030	30,140	43	-250	0	-10,000	-14
Lake Stamford	9	52,700	37,200	71	-270	-1	20,110	38
Lake J. B. Thomas	10	202,300	20,290	10	-550	0	-1,040	-1
Lake Colorado City	11	30,800	17,870	58	-430	-1	-2,200	-7
Champion Creek Reservoir	12	41,600	2,900	7	800	2	220	1
Hords Creek Lake	13	8,600	2,700	31	-170	-2	-1,660	-19
TOTAL		811,720	320,390	39	10,410	1	-34,940	-4
NORTH CENTRAL								
Lake Kickapoo	14	106,000	89,960	85	6,060	6	-10,540	-10
Lake Arrowhead	15	262,100	164,700	63	2,000	1	-35,600	-14
Lake Texoma	16	2,722,300	2,668,000	98	31,000	1	-54,300	-2
Pat Mayse Lake	17	124,500	122,600	98	-1,900	-2	-1,000	-1
Cooper Lake	18	273,000	273,000	100	0	0	0	0
Lake Sulphur Springs	19	17,710	17,710	100	0	0	0	0
Lake Tawakoni	20	936,200	895,200	96	-10,000	-1	-29,800	-3
Bridgeport Reservoir	21	374,830	311,500	83	7,200	2	-62,100	-17
Eagle Mountain Reservoir	22	178,380	178,100	100	700	0	-280	0
Benbrook Lake	23	88,200	85,580	97	-560	-1	2,140	2
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	2,800	1
Lavon Lake	28	443,800	443,800	100	0	0	0	0
Lake Ray Hubbard	29	413,420	412,000	100	-700	0	-1,100	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	47,890	89	-140	0	330	1
Hubbard Creek Reservoir	33	317,800	128,800	41	1,800	1	-24,900	-8
Lake Graham	34	45,000	35,030	78	890	2	-8,780	-20
Possum Kingdom Lake	35	551,820	505,300	92	15,300	3	-23,800	-4
Lake Palo Pinto	36	27,650	24,040	87	70	0	-1,790	-6
Lake Granbury	37	135,680	133,300	98	900	1	2,900	2
Lake Pat Cleburne	38	25,300	25,300	100	0	0	180	1
Whitney Lake	39	622,800	622,800	100	3,100	0	0	0
Waco Lake	40	144,500	144,500	100	0	0	0	0
Proctor Lake	41	55,590	49,190	88	11,200	20	-6,400	-12
Belton Lake	42	434,500	431,500	99	-3,000	-1	-3,000	-1
Stillhouse Hollow Lake	43	226,060	226,060	100	0	0	0	0
Lake Georgetown	44	37,010	33,080	89	-3,610	-10	-3,930	-11
Granger Lake	45	54,280	54,280	100	0	0	0	0
Lake Limestone	46	215,750	215,750	100	0	0	2,550	1
Lake Brownwood	47	143,400	113,000	79	6,200	4	-17,000	-12
TOTAL		11,908,050	11,328,860	95	66,510	1	-273,420	-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 May 2002 (acre-feet)	(%)	Change since Late April 2002 (acre-feet)	(%)	Change since Late May 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	4,472,900	100	53,900	1	281,900	6
Lake Palestine	54	411,300	410,500	100	-800	0	-800	0
Lake Tyler	55	73,700	73,700	100	0	0	0	0
Sam Rayburn Reservoir	56	2,876,300	2,811,000	98	-65,300	-2	-65,300	-2
B. A. Steinhagen Lake	57	94,200	62,430	66	8,180	9	-21,960	-23
Cedar Creek Reservoir	58	637,050	636,600	100	700	0	6,200	1
Lake Livingston	59	1,750,000	1,750,000	100	20,000	1	0	0
Lake Conroe	60	429,900	403,000	94	-9,300	-2	-6,200	-1
TOTAL		12,044,350	11,919,130	99	7,380	0	193,840	2
TRANS-PECOS								
Red Bluff Reservoir	61	307,000	40,210	13	-1,570	-1	-10,770	-4
TOTAL		307,000	40,210	13	-1,570	-1	-10,770	-4
EDWARDS PLATEAU								
E. V. Spence Reservoir	62	488,760	55,630	11	3,090	1	-20,990	-4
Twin Buttes Reservoir	63	177,800	6,600	4	-2,130	-1	-3,970	-2
O.C. Fisher Lake	64	119,200	3,240	3	-680	-1	-3,630	-3
O. H. Ivie Reservoir	65	554,340	234,700	42	-6,000	-1	-73,300	-13
Lake Buchanan	66	896,980	798,500	89	-2,300	0	-38,100	-4
Amistad Reservoir (Texas)	67	1,771,030	653,000	37	-179,000	-10	-375,000	-21
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	824,000	26	-157,000	-5	-402,000	-13
TOTAL		4,008,110	1,751,670	44	-187,020	-5	-514,990	-13
SOUTH CENTRAL								
Somerville Lake	68	155,060	151,700	98	-3,360	-2	-3,360	-2
Lake Travis	69	1,144,100	962,100	84	-136,900	-12	-182,000	-16
Canyon Lake	70	385,600	378,400	98	-3,900	-1	-7,200	-2
Coleto Creek Reservoir	71	35,060	28,130	80	-2,370	-7	-2,450	-7
Medina Lake	72	254,000	228,300	90	-15,700	-6	-25,700	-10
TOTAL		1,973,820	1,748,630	89	-162,230	-8	-220,710	-11
UPPER COAST								
Lake Houston	73	128,860	128,860	100	38,330	30	0	0
Lake Texana	74	157,900	141,000	89	-11,400	-7	-12,400	-8
TOTAL		286,760	269,860	94	26,930	9	-12,400	-4

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late May 2002 (acre-feet)	(%)	Change since Late April 2002 (acre-feet)	(%)	Change since Late May 2001 (acre-feet)	(%)
			SOUTHERN					
Choke Canyon Reservoir	75	695,260	251,000	36	-12,000	-2	-9,000	-1
Lake Corpus Christi	76	241,240	197,200	82	-20,200	-8	108,310	45
Falcon Reservoir (Texas)	77	1,555,120	182,000	12	13,000	1	-75,000	-5
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	263,000	10	-2,000	0	-55,000	-2
TOTAL		2,491,620	630,200	25	-19,200	-1	24,310	1
STATE TOTAL		34,470,430	28,255,150	82	-269,760	-1	-976,060	-3

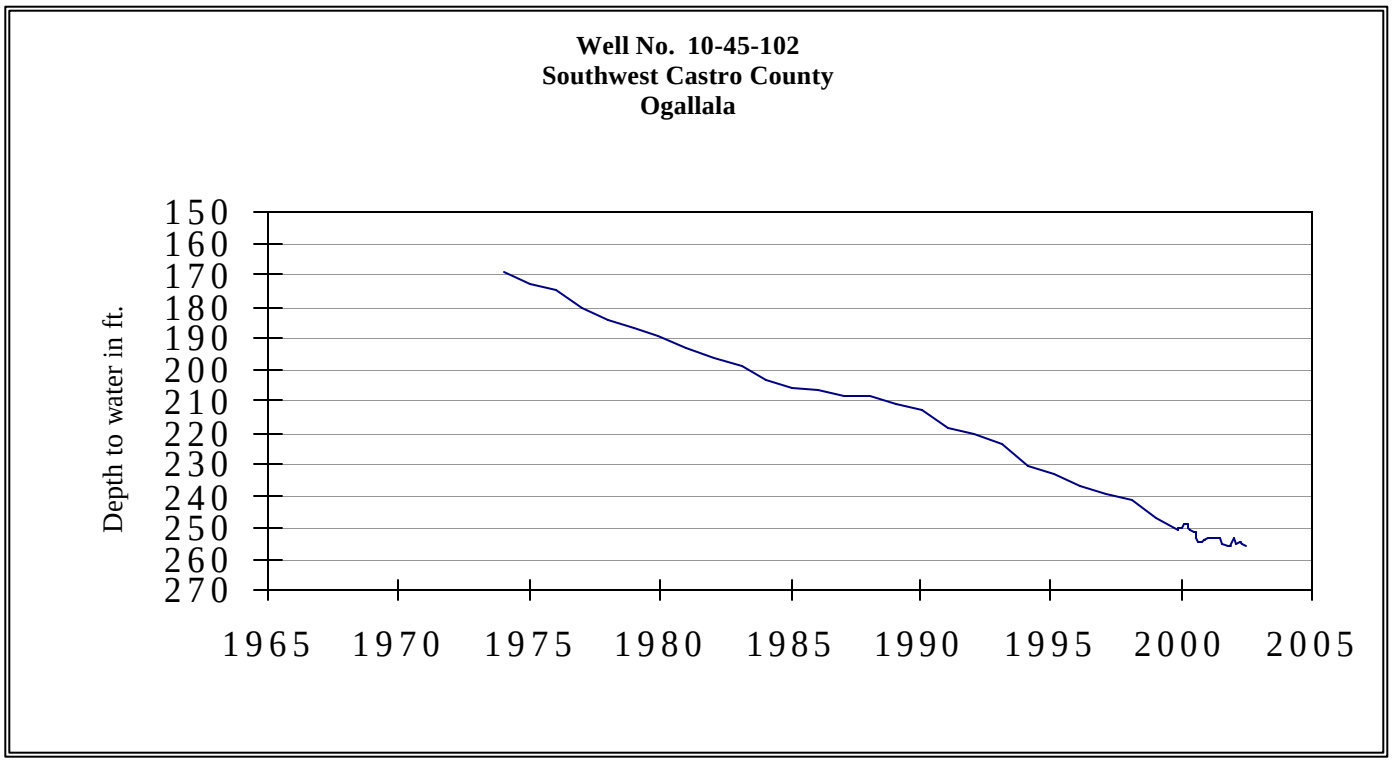
Note:

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.

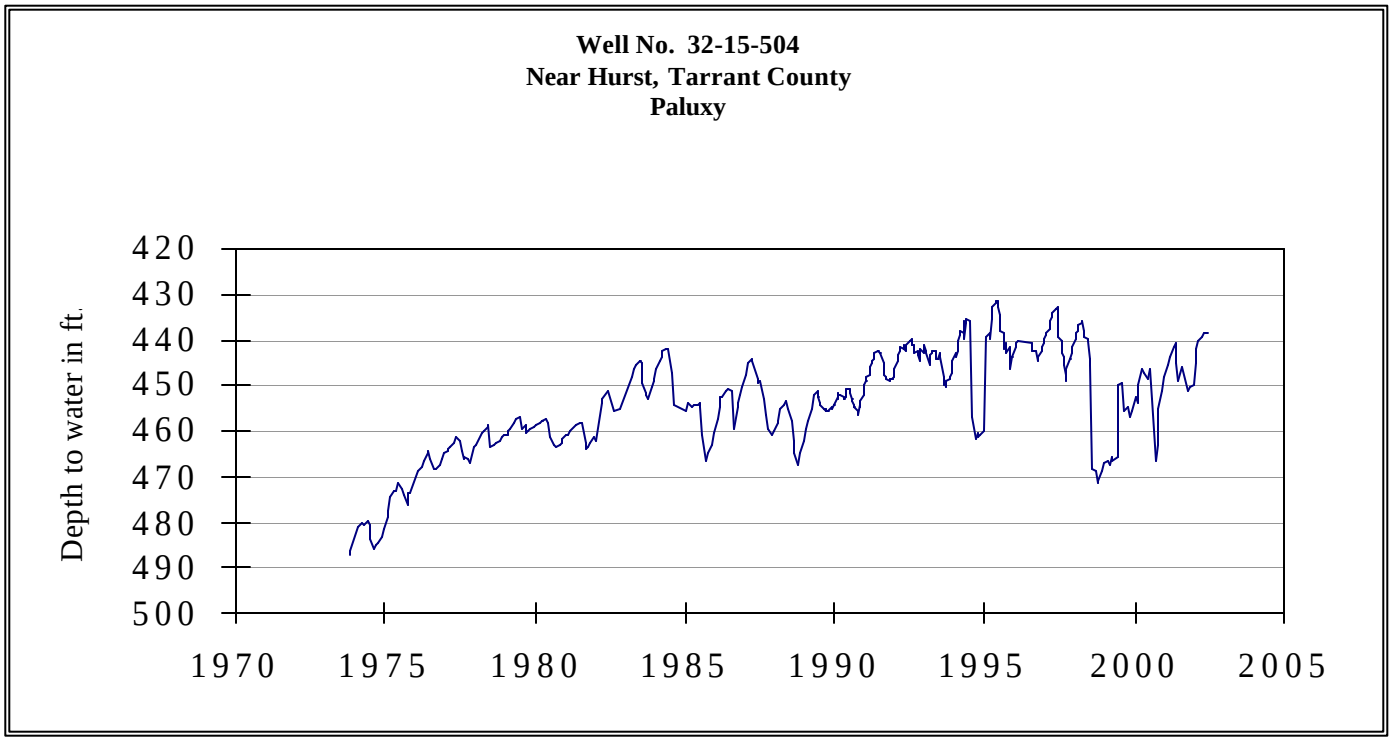
Current data are based on elevations near end of month at 77 reservoirs that together represent 98 percent of the total conservation storage capacity of major Texas reservoirs (those with capacity of 5,000 acre-feet or more each). Figures in parentheses for Lake Meredith represent the total conservation 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.

May’s large increase in the conservation storage of Lake Houston was due to an artificial fluctuation of the reservoir’s storage (The April issue reported a large decrease from March’s value.) The reservoir’s monitor site was resurveyed in April and was not correctly reset until May. Lake Houston has been at full storage capacity all of this year.

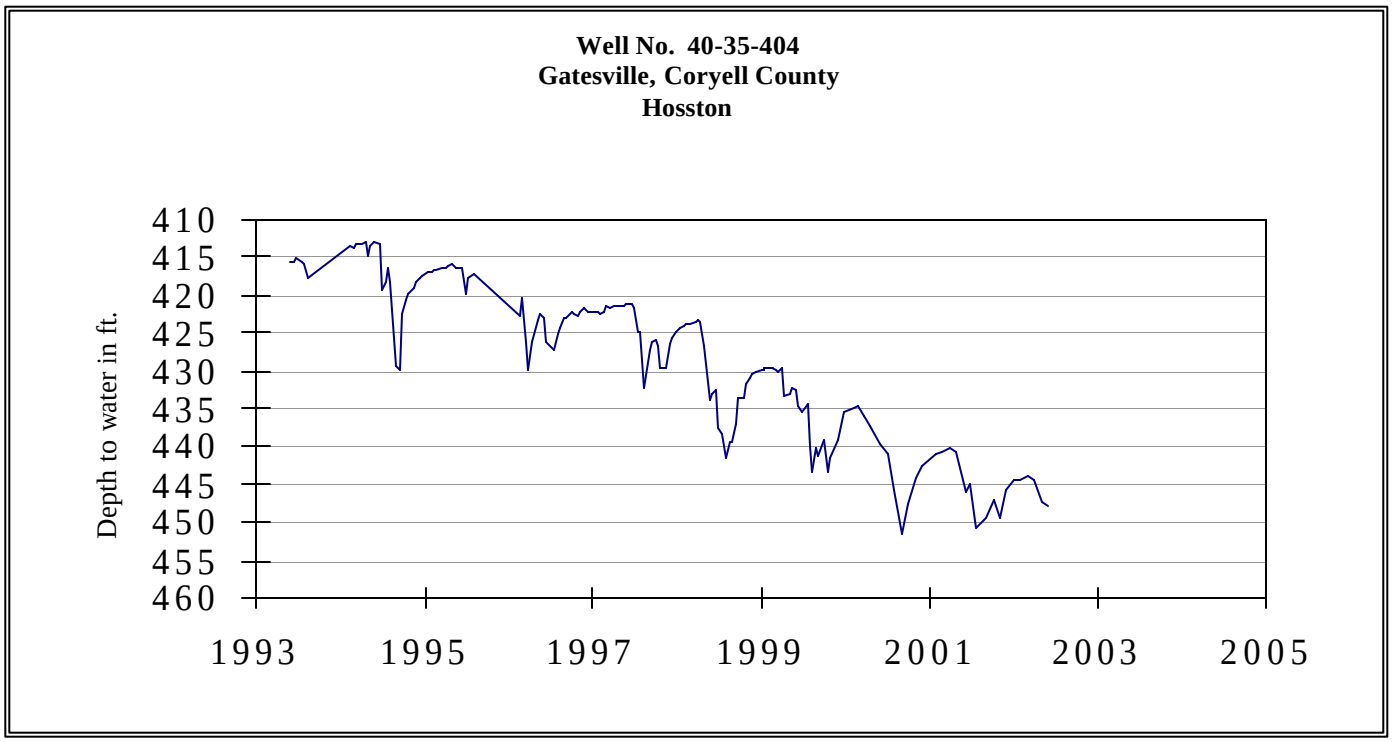
MAY GROUND WATER LEVELS IN OBSERVATION WELLS



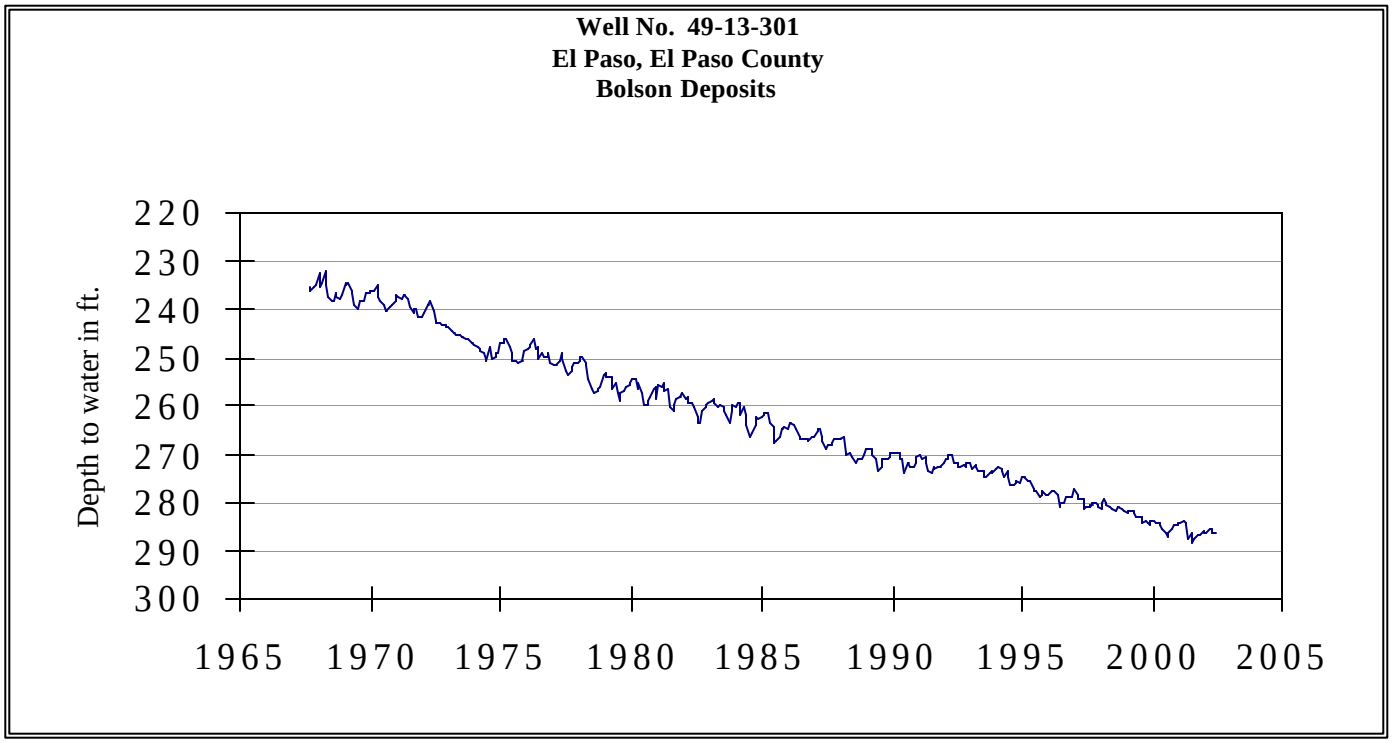
The late May water-level measurement in this Ogallala aquifer well, elevation 3,816 feet above sea level, was 255.87 feet below land surface. This measurement was 0.55 feet below last month's measurement, 2.33 feet below last year's measurement, and 99.87 feet below the initial measurement recorded in 1968.



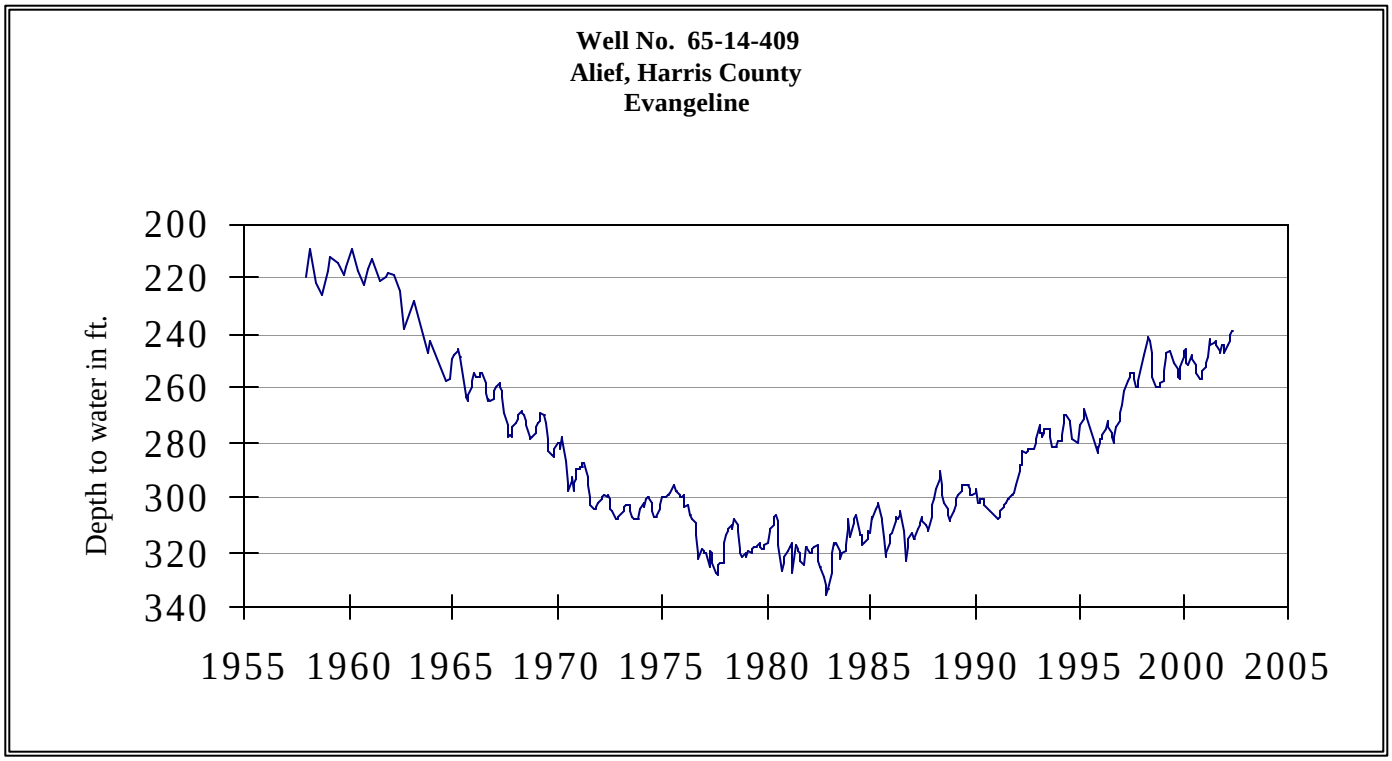
The late May water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 438.18 feet below land surface. This measurement was 0.24 feet above last month's measurement, 6.92 feet above last year's measurement, and 44.79 feet below the initial measurement recorded in 1953.



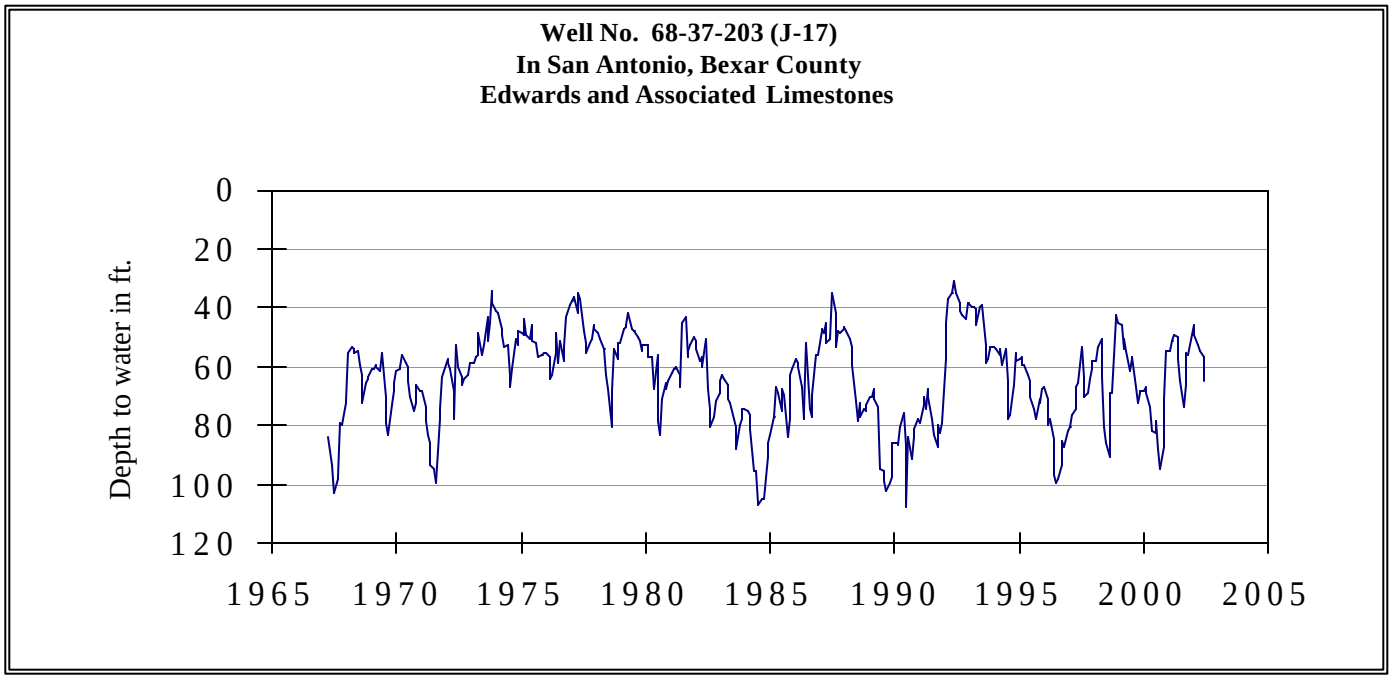
The late May water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 447.79 feet below land surface. This measurement was 0.30 feet below last month's measurement, 1.78 feet below last year's measurement, and 155.79 feet below the initial measurement recorded in 1955.



The late May water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 286.16 feet below land surface. This was 0.06 feet below last month's measurement, 1.48 feet above last year's measurement, and 54.26 feet below the initial measurement recorded in 1964.

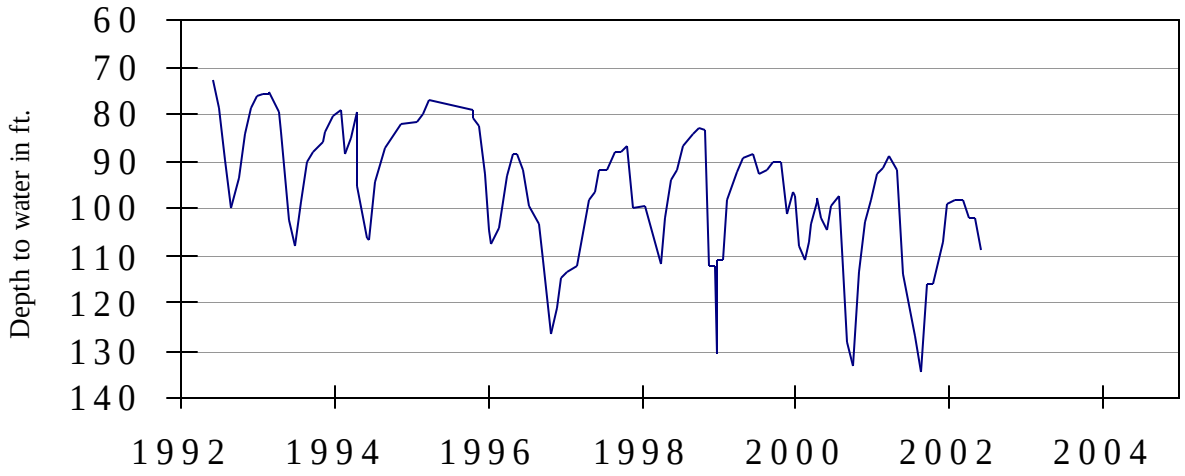


The late May water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 239.20 feet below land surface. This was 0.26 feet below last month's measurement, 4.39 feet above last year's measurement, and 135.97 feet below the initial measurement recorded in 1947.



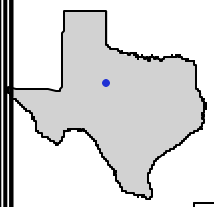
The late May water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 65.10 feet below land surface. This was 8.89 feet below last month's measurement, 7.54 feet below last year's measurement, and 5.48 feet below the initial measurement recorded in 1962.

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



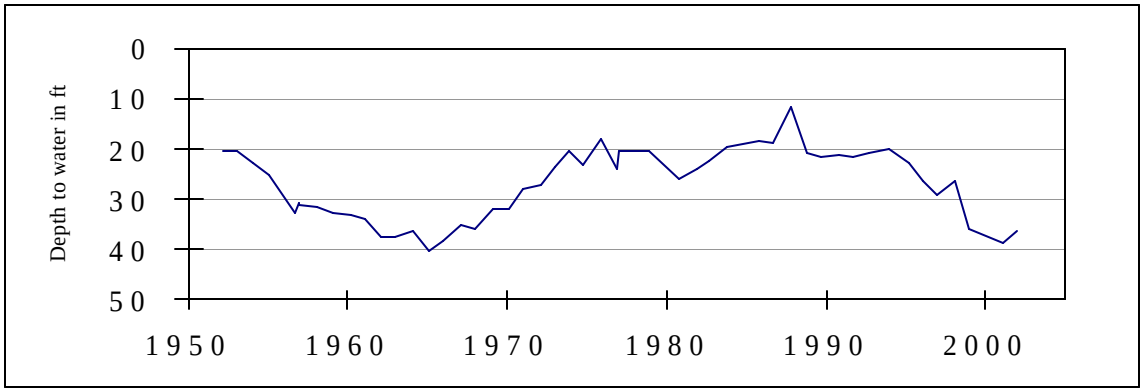
The late May water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 108.77 feet below land surface. This measurement was 7.13 feet below last month's measurement, 10.43 feet below last year's measurement, and 27.52 feet below the initial measurement recorded in 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. 2142202
Haskell County



This 64 ft. deep observation well, located approximately 14 miles north of Haskell, at an elevation of 1,559 feet above sea level, was completed in the Seymour aquifer. Approximately 90% of the water pumped from the Seymour aquifer is used for irrigation. Improved irrigation practices account for the water level rise during the1970s through the mid-1990s ,however recent drought conditions have reduced current water levels.

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