Texas Water Development Board

WaterConditions

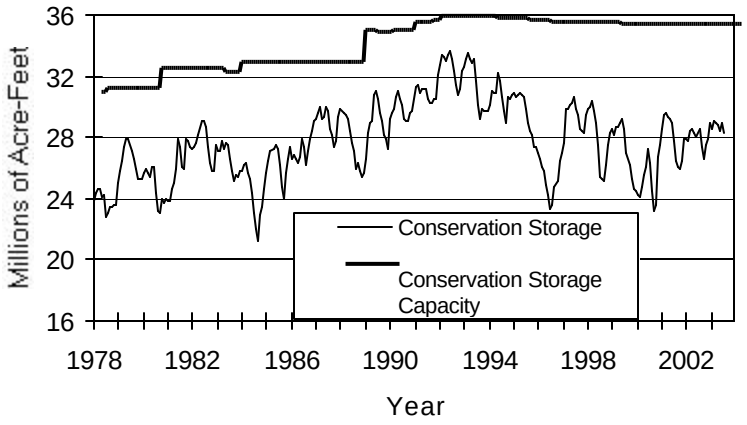
RESERVOIR STORAGE

July 2003

Near the end of July, the 77 reservoirs monitored for this report held 28.28 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 during the month by 0.72 million acre-feet (-2.1% of conservation storage capacity). Compared to the previous year, storage is down 0.28 million acre-feet (-0.8%).

Storage in the East (95%) and Upper Coast (99%) Regions is near capacity, while the High Plains (29%) and Trans-Pecos (18%) Regions remained lower than one-third. Storage is at 100% in 13 reservoirs, down 8 from last month. Compared to this time last year, the Edwards Plateau had the largest increase in storage (+5%), while the High Plains had the steepest decline (-8%).

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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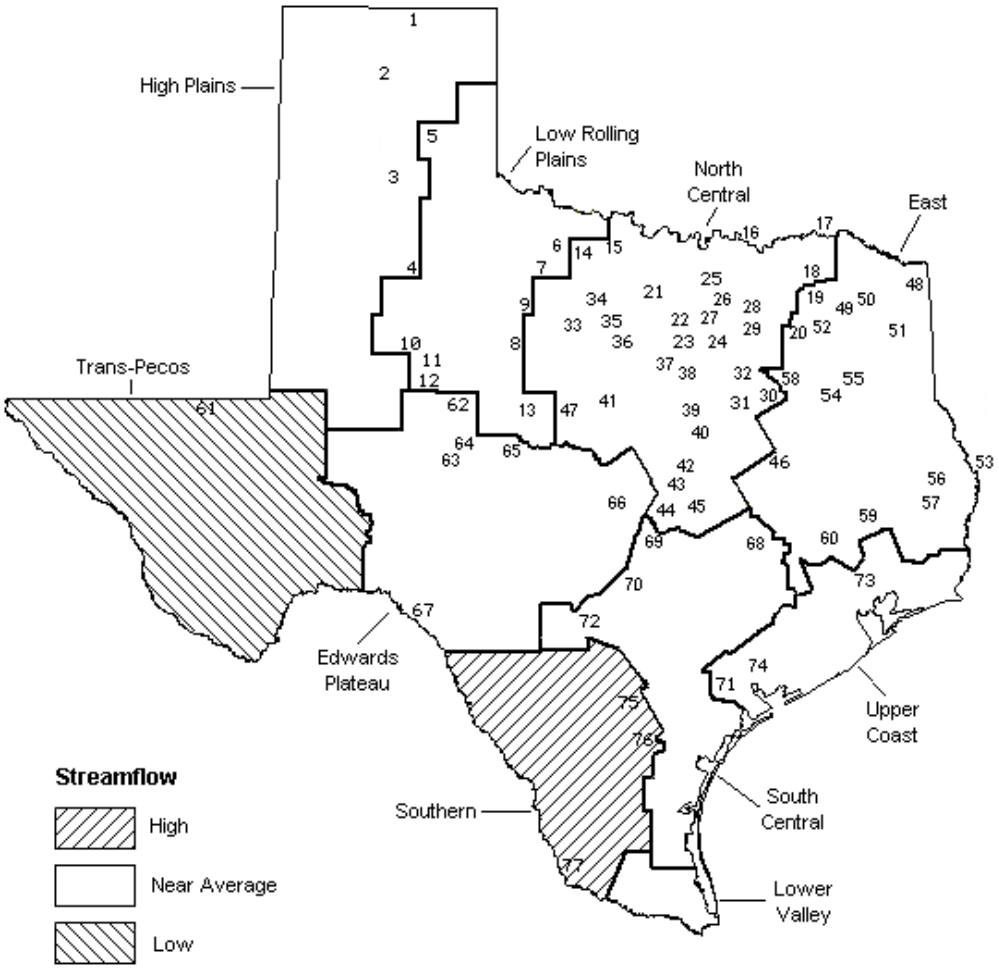
STREAMFLOW

Of 29 reporting index stations in July, computed 30-day mean flows were very high (0% - 5% exceedance) at 1 station, high (5% - 30% exceedance) at 7 stations, near normal (30% - 70% exceedance) at 13 stations, and low (70% - 95% exceedance) at 8 stations. In comparison to June, flows increased at 7 index stations and decreased at 22.

On a regional basis, flows in July were high in the Southern Region, low in the Trans-Pecos Region, and near normal everywhere else.

JULY 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 July 2003 (acre-feet)	(%)	Change since Late June 2003 (acre-feet)	(%)	Change since Late July 2002 (acre-feet)	(%)
HIGH PLAINS								
Palo Duro Reservoir	1	60,900	4,060	7	-570	-1	-720	-1
Lake Meredith (Texas)	2	500,000	165,650	33	-9,680	-2	-48,150	-10
Lake Meredith (Texas and Oklahoma)	(2)	779,560	165,650	21	-9,680	-1	-48,150	-6
MacKenzie Reservoir	3	46,250	6,900	15	-320	-1	-440	-1
White River Lake	4	31,850	7,610	24	-790	-2	930	3
TOTAL		639,000	184,220	29	-11,360	-2	-48,380	-8
LOW ROLLING PLAINS								
Greenbelt Reservoir	5	58,200	22,950	39	-1,320	-2	-20	0
Lake Kemp	6	319,600	214,360	67	-19,220	-6	-12,640	-4
Miller's Creek Reservoir	7	27,890	14,860	53	-1,180	-4	-2,790	-10
Fort Phantom Hill Reservoir	8	70,030	39,160	56	-3,750	-5	-12,770	-18
Lake Stamford	9	52,700	38,110	72	-3,360	-6	-7,980	-15
Lake J. B. Thomas	10	202,300	21,980	11	-2,250	-1	150	0
Lake Colorado City	11	30,800	19,120	62	-1,130	-4	1,480	5
Champion Creek Reservoir	12	41,600	3,000	7	-250	-1	300	1
Hords Creek Lake	13	8,600	2,100	24	-170	-2	-680	-8
TOTAL		811,720	375,640	46	-32,630	-4	-34,950	-4
NORTH CENTRAL								
Lake Kickapoo	14	106,000	74,640	70	-5,390	-5	-19,610	-19
Lake Arrowhead	15	262,100	138,880	53	-9,020	-3	-27,220	-10
Lake Texoma	16	2,722,300	2,605,460	96	-116,840	-4	-54,540	-2
Pat Mayse Lake	17	124,500	115,010	92	-5,280	-4	-290	0
Cooper Lake	18	273,000	273,000	100	0	0	0	0
Lake Sulphur Springs	19	17,710	17,240	97	-470	-3	-310	-2
Lake Tawakoni	20	936,200	853,800	91	-28,000	-3	-13,400	-1
Bridgeport Reservoir	21	374,830	289,800	77	-17,900	-5	-18,100	-5
Eagle Mountain Reservoir	22	178,380	143,000	80	-8,500	-5	-22,600	-13
Benbrook Lake	23	88,200	75,960	86	-7,450	-8	-2,390	-3
Joe Pool Lake	24	175,800	175,570	100	-230	0	-230	0
Ray Roberts Lake	25	798,760	770,360	96	-20,990	-3	-26,540	-3
Lewisville Lake	26	555,000	555,000	100	0	0	0	0
Grapevine Lake	27	187,700	173,190	92	-9,760	-5	-6,910	-4
Lavon Lake	28	443,800	402,950	91	-33,820	-8	-20,350	-5
Lake Ray Hubbard	29	413,420	388,500	94	-22,200	-5	1,800	0
Richland-Chambers Creek Lake	30	1,103,820	1,103,820	100	0	0	0	0
Navarro Mills Lake	31	55,810	52,710	94	-3,100	-6	-3,100	-6
Bardwell Lake	32	53,580	46,160	86	-1,950	-4	0	0
Hubbard Creek Reservoir	33	317,800	140,000	44	-7,800	-2	-21,300	-7
Lake Graham	34	45,000	27,350	61	-1,650	-4	-6,510	-14
Possum Kingdom Lake	35	551,820	485,200	88	-18,000	-3	-45,300	-8
Lake Palo Pinto	36	27,650	17,280	62	-2,150	-8	-3,990	-14
Lake Granbury	37	135,680	133,300	98	-500	0	200	0
Lake Pat Cleburne	38	25,300	23,120	91	-1,290	-5	-1,370	-5
Whitney Lake	39	622,800	455,860	73	-25,690	-4	-155,440	-25
Waco Lake	40	144,500	140,000	97	-4,500	-3	-4,500	-3
Proctor Lake	41	55,590	50,430	91	-4,760	-9	-5,160	-9
Belton Lake	42	434,500	428,190	99	-6,310	-1	-6,310	-1
Stillhouse Hollow Lake	43	226,060	225,110	100	-950	0	-950	0
Lake Georgetown	44	37,010	32,500	88	-2,440	-7	-4,510	-12
Granger Lake	45	54,280	53,590	99	-690	-1	-690	-1
Lake Limestone	46	215,750	208,400	97	-4,200	-2	-5,600	-3
Lake Brownwood	47	143,400	128,520	90	-6,170	-4	-3,980	-3
TOTAL		11,908,050	10,803,900	91	-378,000	-3	-479,200	-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 July 2003 (acre-feet)	(%)	Change since Late June 2003 (acre-feet)	(%)	Change since Late July 2002 (acre-feet)	(%)
EAST								
Wright Patman Lake	48	142,700	142,700	100	0	0	0	0
Lake Cypress Springs	49	66,800	65,470	98	-1,330	-2	-1,330	-2
Lake Bob Sandlin	50	202,300	194,400	96	-7,900	-4	-7,900	-4
Lake O' the Pines	51	252,000	230,160	91	-10,790	-4	-21,840	-9
Lake Fork Reservoir	52	635,200	613,200	97	-20,600	-3	-22,000	-3
Toledo Bend Reservoir	53	4,472,900	4,089,000	91	-185,000	-4	-69,000	-2
Lake Palestine	54	411,300	400,000	97	-11,300	-3	-2,000	0
Lake Tyler	55	73,700	73,700	100	0	0	0	0
Sam Rayburn Reservoir	56	2,876,300	2,808,880	98	-48,310	-2	224,880	8
B. A. Steinhagen Lake	57	94,200	94,200	100	8,250	9	49,560	53
Cedar Creek Reservoir	58	637,050	616,100	97	-20,500	-3	-10,800	-2
Lake Livingston	59	1,750,000	1,749,000	100	11,000	1	9,000	1
Lake Conroe	60	429,900	410,800	96	-2,700	-1	-10,700	-2
TOTAL		12,044,350	11,487,610	95	-289,180	-2	137,870	1
TRANS-PECOS								
Red Bluff Reservoir	61	307,000	54,440	18	-2,560	-1	12,050	4
TOTAL		307,000	54,440	18	-2,560	-1	12,050	4
EDWARDS PLATEAU								
E. V. Spence Reservoir	62	488,760	55,450	11	-3,280	-1	1,750	0
Twin Buttes Reservoir	63	177,800	5,090	3	-470	0	-930	-1
O.C. Fisher Lake	64	119,200	3,980	3	-780	-1	-850	-1
O. H. Ivie Reservoir	65	554,340	210,800	38	-11,600	-2	-26,200	-5
Lake Buchanan	66	896,980	824,940	92	-41,190	-5	-34,160	-4
Amistad Reservoir (Texas)	67	1,771,030	949,000	54	89,000	5	279,000	16
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	1,179,000	37	162,000	5	350,000	11
TOTAL		4,008,110	2,049,260	51	31,680	1	218,610	5
SOUTH CENTRAL								
Somerville Lake	68	155,060	155,060	100	0	0	0	0
Lake Travis	69	1,144,100	1,028,700	90	-72,900	-6	-115,400	-10
Canyon Lake	70	385,600	385,150	100	-450	0	-450	0
Coleto Creek Reservoir	71	35,060	31,230	89	1,890	5	-510	-1
Medina Lake	72	254,000	250,100	98	2,600	1	-3,900	-2
TOTAL		1,973,820	1,850,240	94	-68,860	-3	-120,260	-6
UPPER COAST								
Lake Houston	73	128,860	128,860	100	0	0	0	0
Lake Texana	74	157,900	155,950	99	24,850	16	-750	0
TOTAL		286,760	284,810	99	24,850	9	-750	0

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

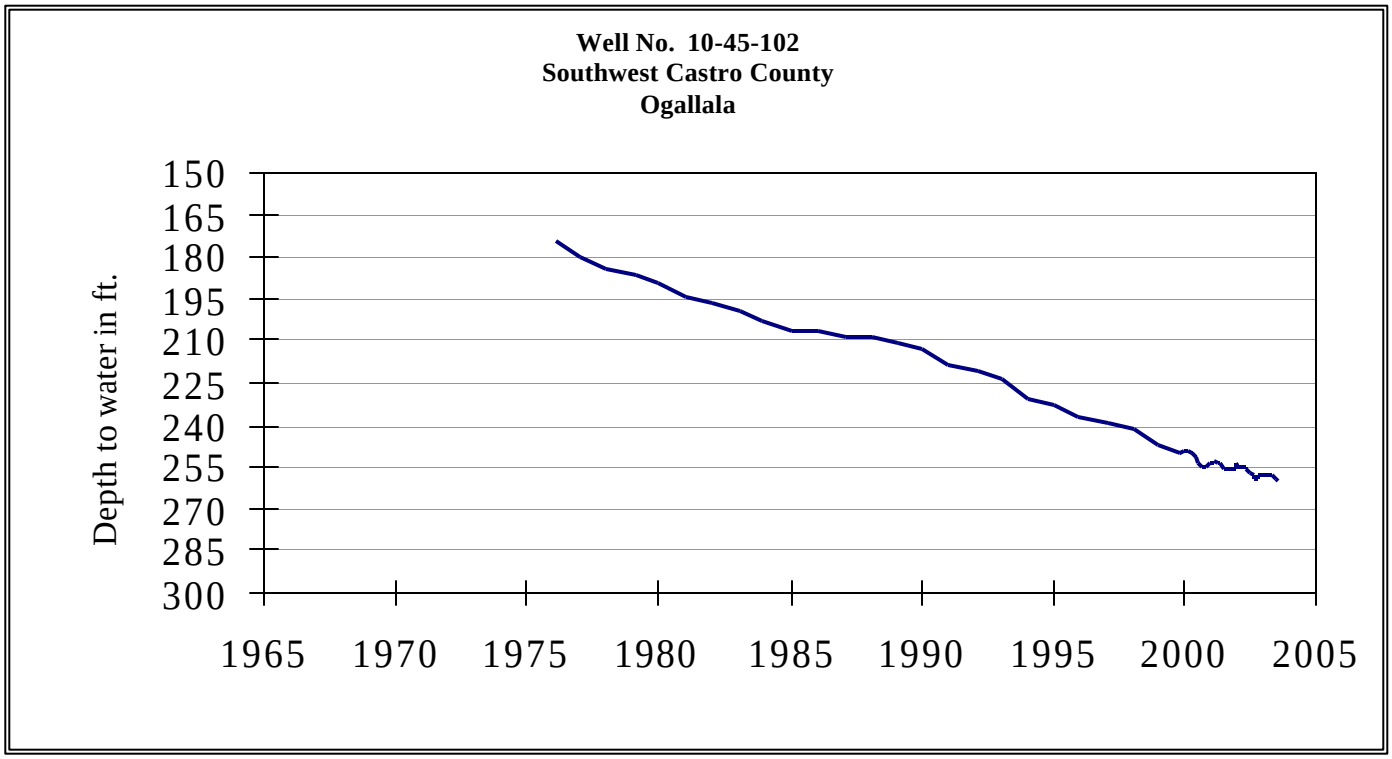
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late July 2003 (acre-feet)	(%)	Change since Late June 2003 (acre-feet)	(%)	Change since Late July 2002 (acre-feet)	(%)
			SOUTHERN					
Choke Canyon Reservoir	75	695,260	690,000	99	-1,000	0	1,000	0
Lake Corpus Christi	76	241,240	241,240	100	33,500	14	540	0
Falcon Reservoir (Texas)	77	1,555,120	255,000	16	-29,000	-2	33,000	2
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	406,000	15	49,000	2	88,000	3
TOTAL		2,491,620	1,186,240	48	3,500	0	34,540	1
STATE TOTAL		34,470,430	28,276,360	82	-722,560	-2	-280,470	-1

Note:

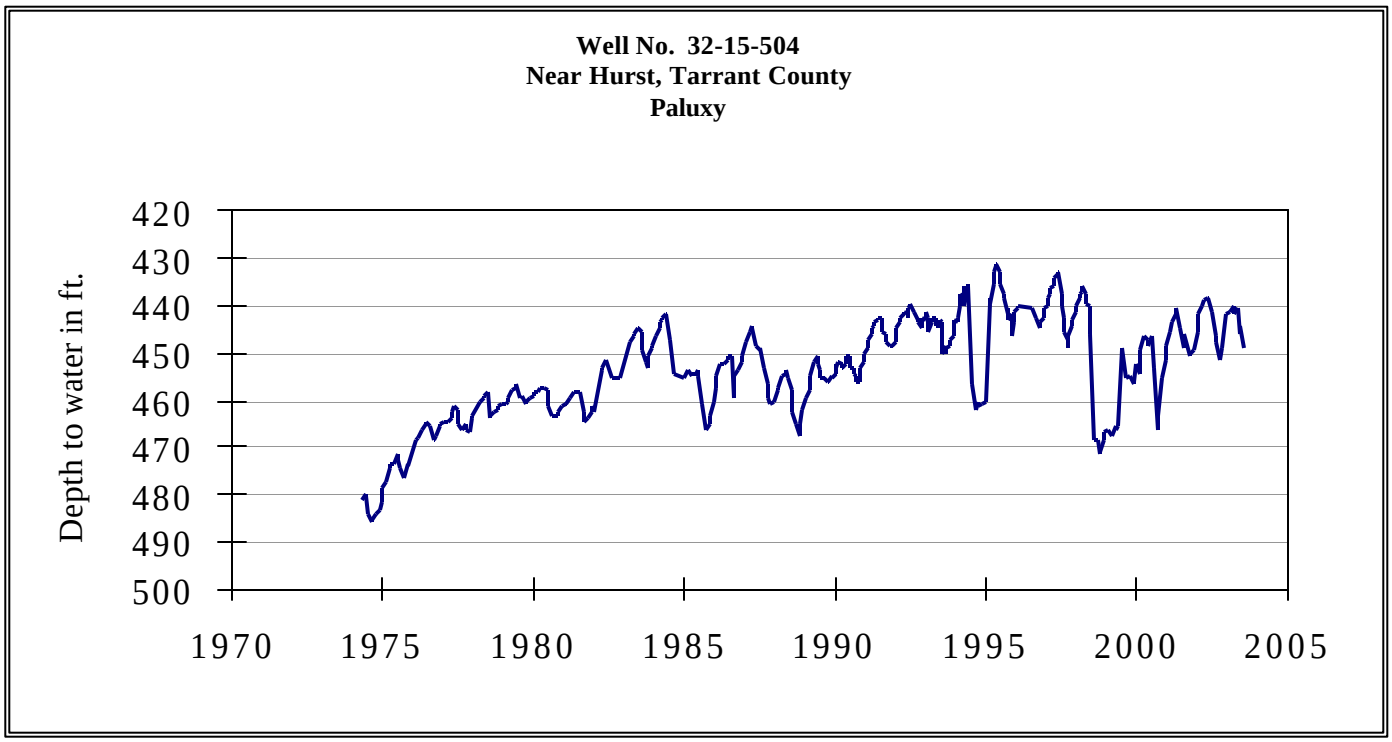
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included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

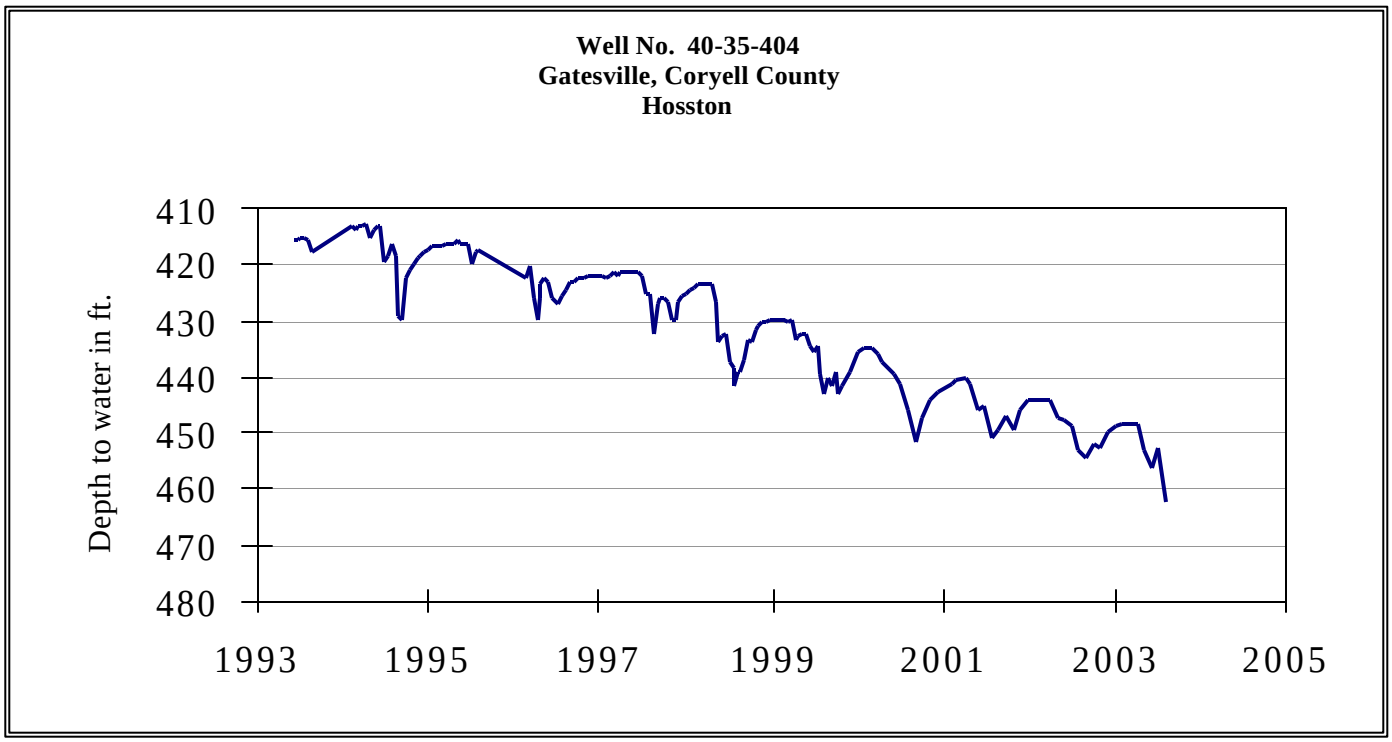
JULY GROUND WATER LEVELS IN OBSERVATION WELLS



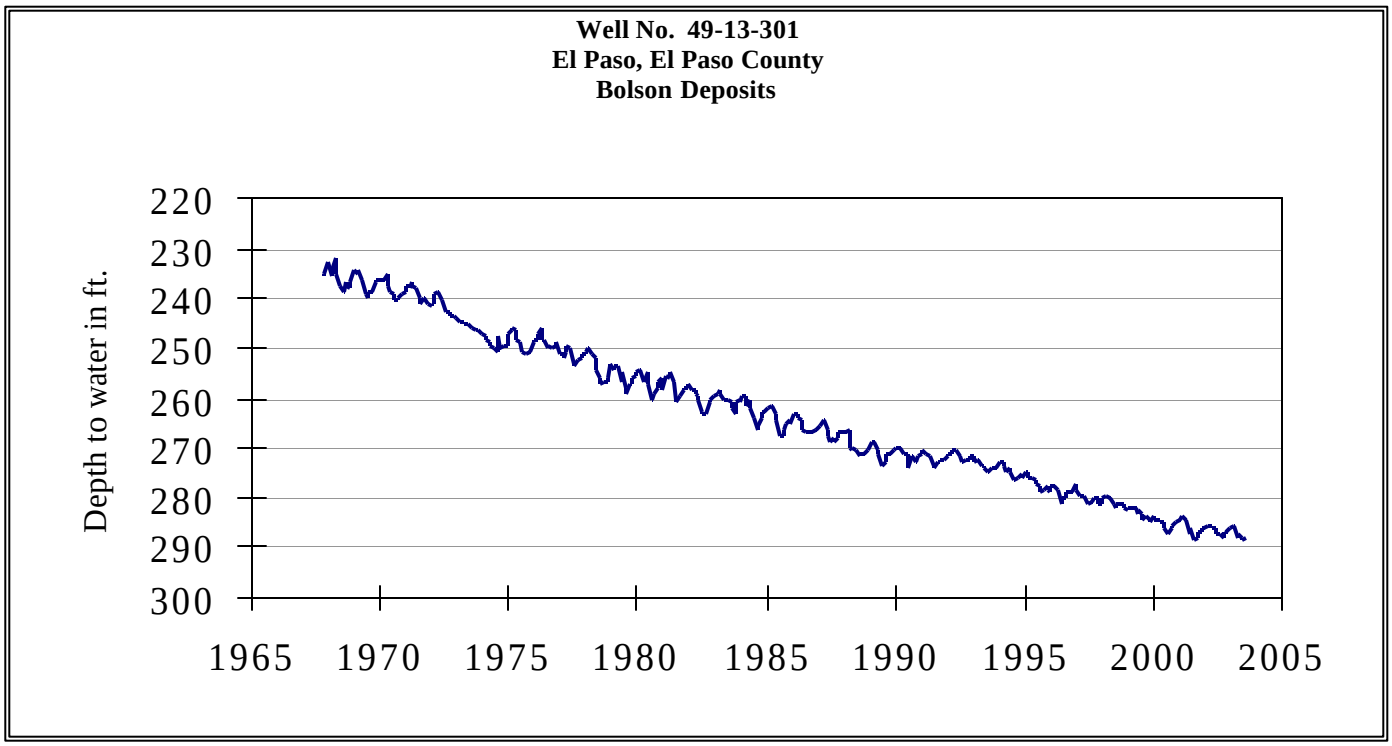
The late July water-level measurement in this Ogallala aquifer well, elevation 3,816 feet above sea level, was 259.90 feet below land surface. This measurement was 0.66 feet below last month's measurement, 1.82 feet below last year's measurement, and 103.90 feet below the initial measurement recorded in 1968.



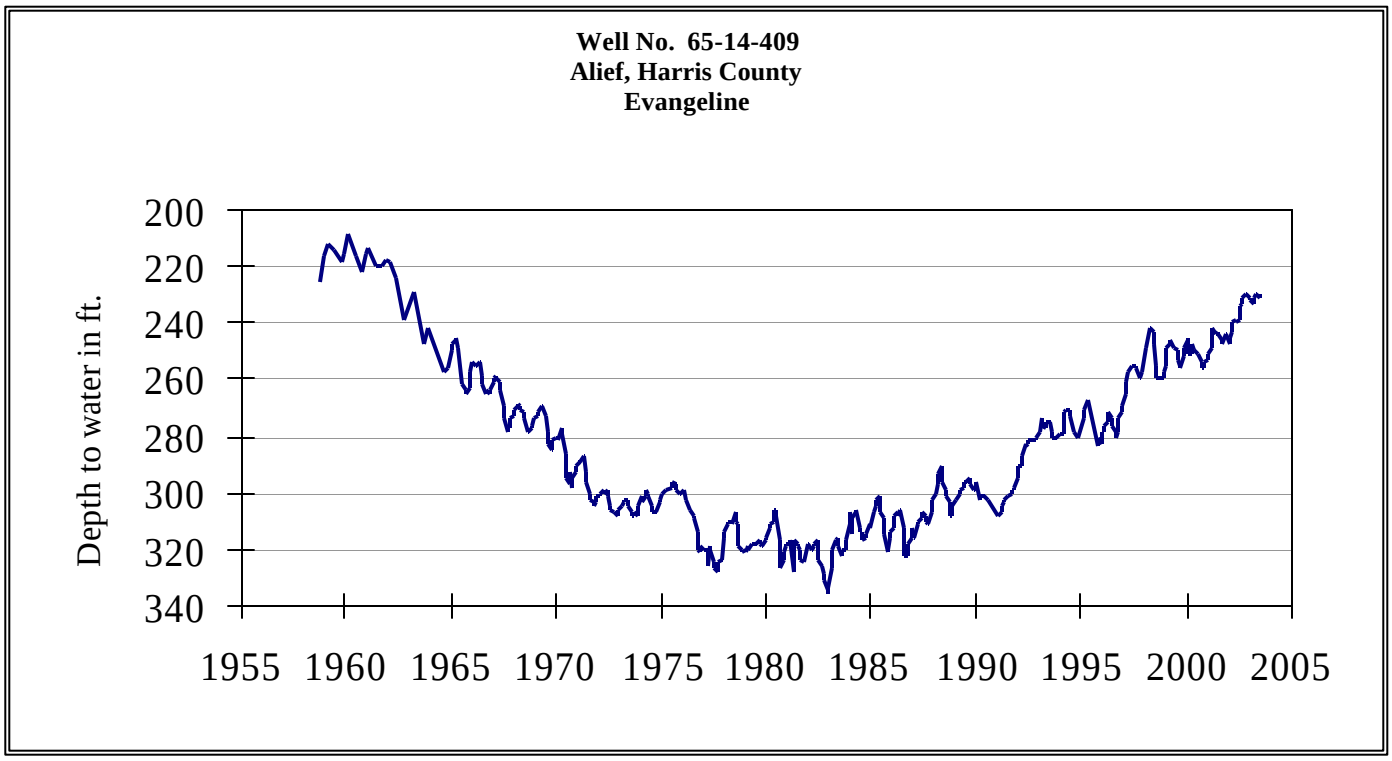
The late July water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 449.00 feet below land surface. This measurement was 4.78 feet below last month's measurement, 2.25 feet below last year's measurement, and 55.61 feet below the initial measurement recorded in 1953.



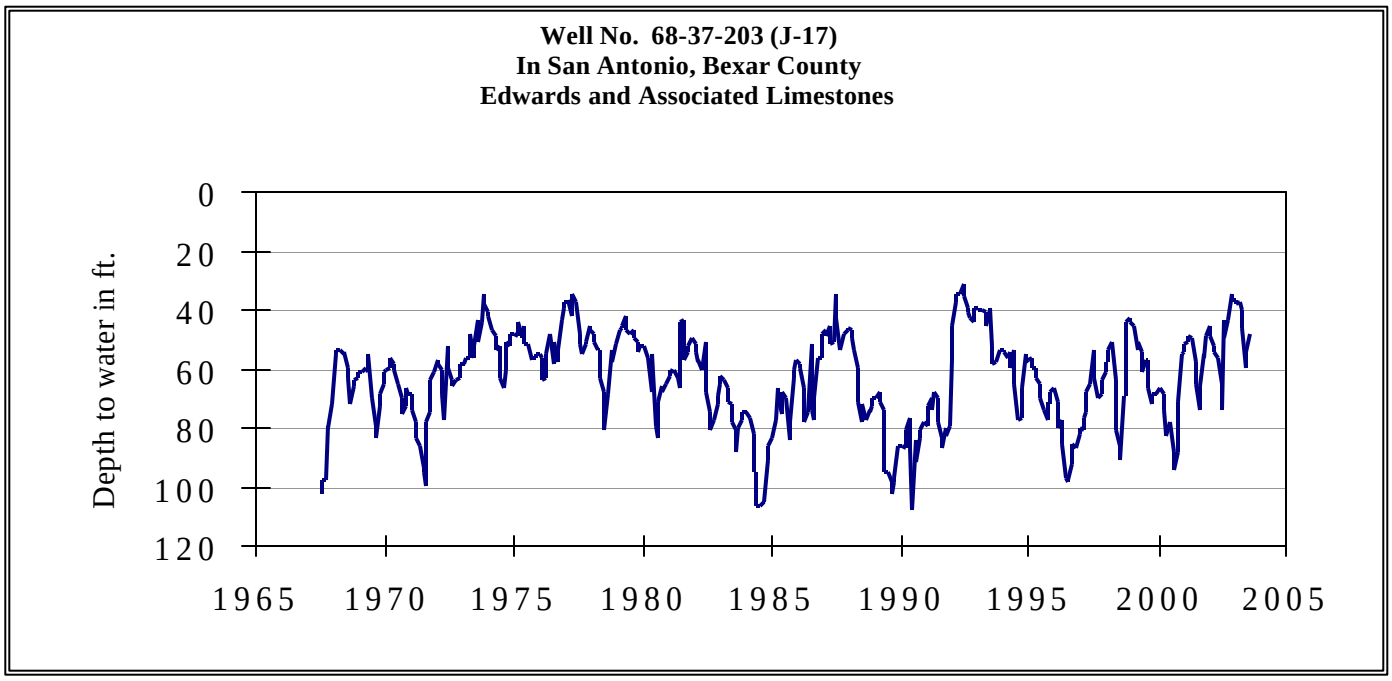
The late July water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 462.30 feet below land surface. This measurement was 9.53 feet below last month's measurement, 9.14 feet below last year's measurement, and 170.30 feet below the initial measurement recorded in 1955.



The late July water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 287.90 feet below land surface. This was 0.93 feet above last month's measurement, 0.55 feet below last year's measurement, and 56.00 feet below the initial measurement recorded in 1964.

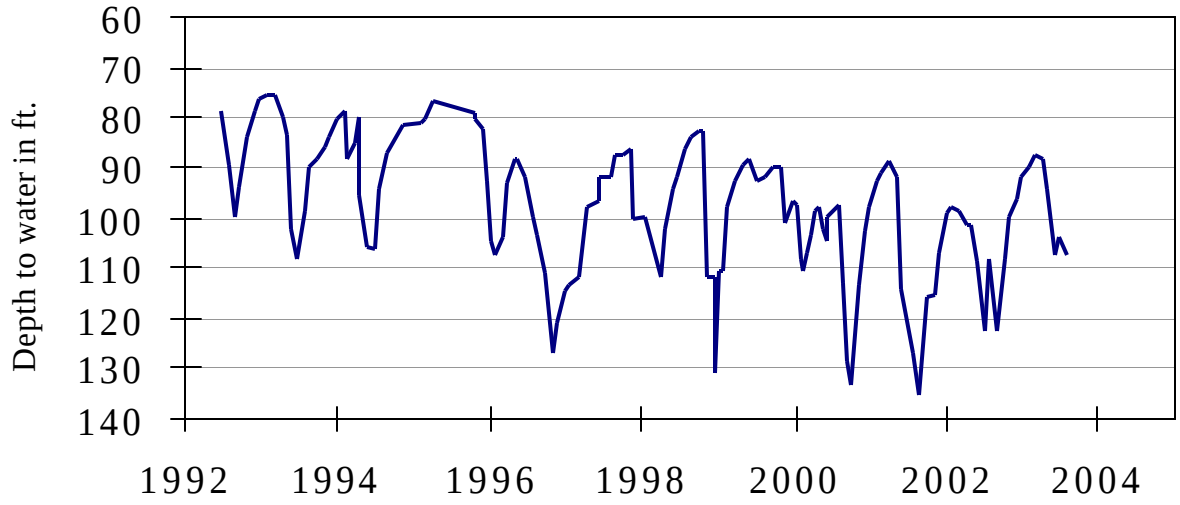


The late July water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 229.60 feet below land surface. This was 0.96 feet above last month's measurement, 5.10 feet above last year's measurement, and 126.37 feet below the initial measurement recorded in 1947.



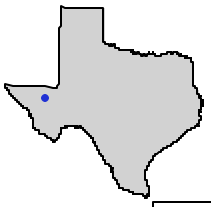
The late July water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 48.00 feet below land surface. This was 6.45 feet above last month's measurement, 4.68 feet below last year's measurement, and 11.62 feet above the initial measurement recorded in 1962.

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



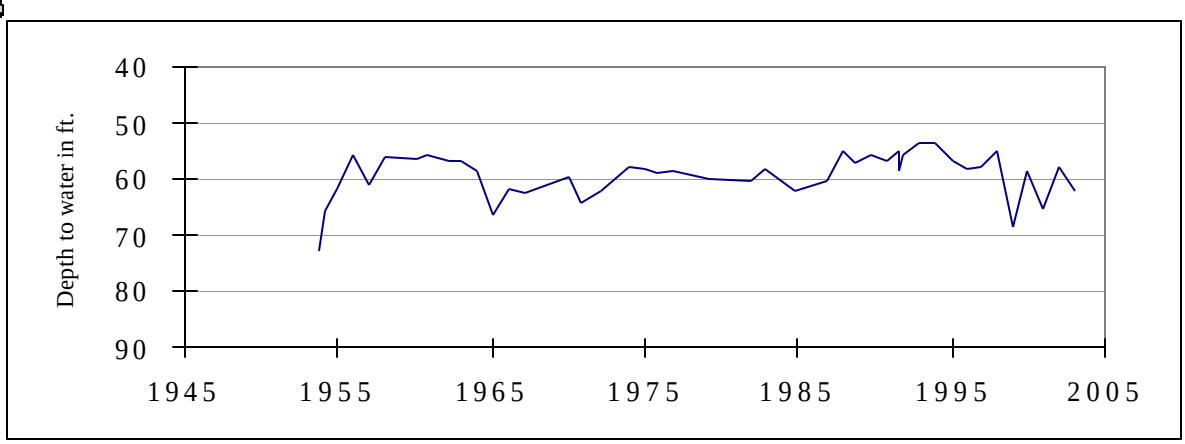
The late July water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 107.57 feet below land surface. This measurement was 3.70 feet below last month's measurement, 0.73 feet above last year's measurement, and 26.32 feet below the initial measurement recorded in 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. 4717206
Hudspeth County



This 750 ft. observation well, located 22 miles southeast of Dell City, at an elevation of 3,699 feet above sea level, was completed in the Capitan Reef Complex. Pumpage from this aquifer is by a limited number of agriculture and industrial users. Management issues include pumping rates (regulated by withdrawal costs) and water-quality deterioration.

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