

Texas Water Development Board



W *Conditions* **ATERS**

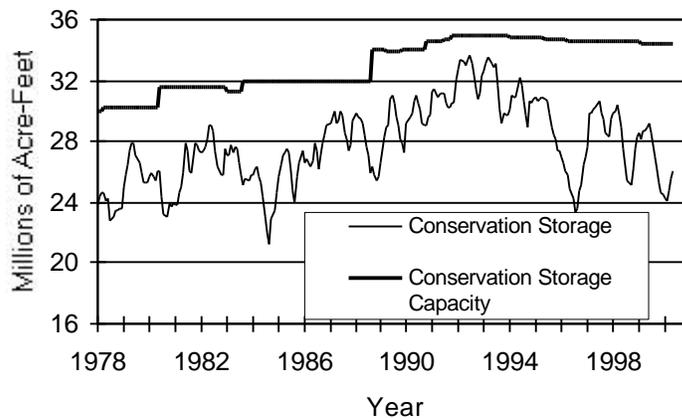
RESERVOIR STORAGE

May 2000

Near the end of May, the 77 reservoirs monitored for this report held 26.0 million acre-feet in conservation storage, or 75.5 percent of the conservation storage capacity of the State's major reservoirs. This is the second-lowest percentage of capacity for a May in 23 years of record. Storage increased by 0.49 million acre-feet (1.4% of conservation storage capacity) during the month. Compared to May 1999, storage is down 2.85 million acre-feet (-8.3%).

Conservation storage during the month increased in the North Central (+0.9%), East (+4.9%) and Upper Coast (+6.8%) regions. Storage in all other regions continued to decline, with the largest declines occurring in the Low Rolling Plains (-2.7%), Trans-Pecos (-2.8%), Edwards Plateau (-3.2%), and South Central (-2.6%) regions. Ten monitored reservoirs, in the North Central, East, and Upper Coast regions, held 100 percent of conservation storage near the end of May.

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.

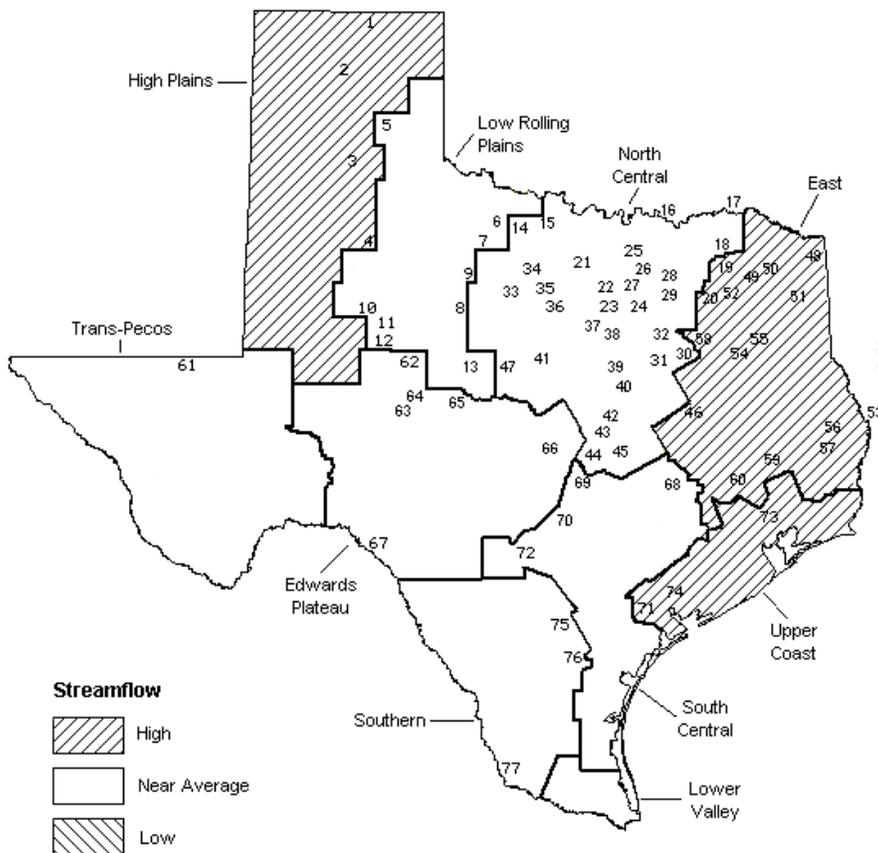
STREAMFLOW

Of 24 reporting index stations in May, computed 30-day mean flows were high (5% - 30% exceedance) at 11 stations, near normal (30% - 70% exceedance) at 8 stations, and low (70% - 95% exceedance) at 5 stations. In comparison to April, flows increased at 15 index stations, decreased at 4 stations, and remained unchanged at 1 station.

Flows in May were above normal in the High Plains, East, and Upper Coast regions, and near normal elsewhere. All three index stations in the Upper Coast region reported high flow. Zero flow was recorded on the Elm Creek at Ballinger (Low Rolling Plains) for the third straight month, and on the Hubbard Creek below Albany (North Central) and the North Concho River near Carlsbad (Edwards Plateau).

MAY STREAMFLOW CONDITIONS

Reservoirs Shown on Map



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

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation		Change since Late April 2000	Change since Late May 1999	
		Storage Capacity (acre-feet)	Storage Late May 2000 (acre-feet) (%)			(acre-feet) (%)
HIGH PLAINS						
Palo Duro Reservoir	1	60,900	14,010	23	-1,020 -2	-20,135 -33
Lake Meredith (Texas)	2	500,000	388,500	78	-12,900 -3	-11,100 -2
Lake Meredith (Texas and Oklahoma)	(2)	779,560	388,500	50	-12,900 -2	-11,100 -1
MacKenzie Reservoir	3	46,250	8,940	19	-310 -1	-1,503 -3
White River Lake	4	31,850	15,290	48	-570 -2	-10,780 -34
TOTAL		639,000	426,740	67	-14,800 -2	-43,518 -7
LOW ROLLING PLAINS						
Greenbelt Reservoir	5	58,200	25,050	43	-750 -1	-2,200 -4
Lake Kemp	6	319,600	158,400	50	-13,700 -4	-62,200 -19
Miller's Creek Reservoir	7	27,890	10,260	37	-400 -1	-4,890 -18
Fort Phantom Hill Reservoir	8	70,030	21,770	31	-950 -1	-3,550 -5
Lake Stamford	9	52,700	8,690	16	-1,110 -2	-10,236 -19
Lake J. B. Thomas	10	202,300	25,910	13	-3,110 -2	16,880 8
Lake Colorado City	11	30,800	26,380	86	-1,560 -5	11,190 36
Champion Creek Reservoir	12	41,600	4,940	12	-260 -1	-2,430 -6
Hords Creek Lake	13	8,600	2,610	30	-323 -4	-2,036 -24
TOTAL		811,720	284,010	35	-22,163 -3	-59,472 -7
NORTH CENTRAL						
Lake Kickapoo	14	106,000	50,129	47	-2,184 -2	-19,875 -19
Lake Arrowhead	15	262,100	118,400	45	-4,200 -2	-61,900 -24
Lake Texoma	16	2,722,300	2,541,495	93	54,438 2	-180,805 -7
Pat Mayse Lake	17	124,500	122,959	99	4,789 4	-1,541 -1
Cooper Lake	18	273,000	273,000	100	536 0	19,797 7
Lake Sulphur Springs	19	17,710	17,601	99	-109 -1	-109 -1
Lake Tawakoni	20	936,200	768,100	82	12,700 1	-168,100 -18
Bridgeport Reservoir	21	374,830	214,157	57	4,468 1	-97,723 -26
Eagle Mountain Reservoir	22	178,380	126,654	71	-2,437 -1	-34,414 -19
Benbrook Lake	23	88,200	82,698	94	3,380 4	-5,502 -6
Joe Pool Lake	24	175,800	158,884	90	-71 0	-16,916 -10
Ray Roberts Lake	25	798,760	557,713	70	-4,515 -1	-166,467 -21
Lewisville Lake	26	555,000	350,591	63	3,041 1	-129,449 -23
Grapevine Lake	27	187,700	131,442	70	1,066 1	-36,277 -19
Lavon Lake	28	443,800	365,429	82	20,643 5	-78,371 -18
Lake Ray Hubbard	29	413,420	413,420	100	0 0	0 0
Richland-Chambers Creek Lake	30	1,103,820	979,309	89	16,187 1	-124,511 -11
Navarro Mills Lake	31	55,810	54,358	97	5,432 10	-1,452 -3
Bardwell Lake	32	53,580	53,580	100	0 0	0 0
Hubbard Creek Reservoir	33	317,800	177,800	56	-7,300 -2	-71,000 -22
Lake Graham	34	45,000	38,820	86	1,410 3	-6,180 -14
Poosum Kingdom Lake	35	551,820	471,500	85	100 0	146,815 27
Lake Palo Pinto	36	42,200	25,103	59	-1,465 -3	-7,686 -18
Lake Granbury	37	135,680	119,175	88	2,275 2	-13,518 -10
Lake Pat Cleburne	38	25,300	14,634	58	-671 -3	-10,609 -42
Whitney Lake	39	622,800	413,200	66	-15,200 -2	-50,398 -8
Waco Lake	40	144,500	120,889	84	1,432 1	-23,611 -16
Proctor Lake	41	55,590	15,009	27	-3,890 -7	-20,840 -37
Belton Lake	42	434,500	377,075	87	-2,031 0	-57,425 -13
Stillhouse Hollow Lake	43	226,060	219,846	97	938 0	-6,214 -3
Lake Georgetown	44	37,010	22,332	60	-782 -2	-14,678 -40
Granger Lake	45	54,280	54,280	100	69 0	0 0
Lake Limestone	46	215,750	193,300	90	17,000 8	-20,500 -10
Lake Brownwood	47	143,400	73,780	51	-3,420 -2	-36,220 -25
TOTAL		11,922,600	9,716,662	81	101,629 1	-1,295,679 -11

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage		Change since Late April 2000		Change since Late May 1999		
			(acre-feet)	(%)	(acre-feet)	(%)	(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	614,300	97	0	0	-20,900	-3	
Toledo Bend Reservoir	53	4,472,900	4,376,000	98	268,000	6	215,000	5	
Lake Palestine	54	411,300	411,300	100	16,100	4	0	0	
Lake Tyler	55	73,700	71,263	97	6,434	9	-2,437	-3	
Sam Rayburn Reservoir	56	2,876,300	2,355,000	82	237,000	8	-521,300	-18	
B. A. Steinhagen Lake	57	94,200	83,734	89	5,620	6	-5,395	-6	
Cedar Creek Reservoir	58	637,050	583,089	92	37,671	6	-53,961	-8	
Lake Livingston	59	1,750,000	1,750,000	100	15,000	1	0	0	
Lake Conroe	60	429,900	377,900	88	7,200	2	-35,800	-8	
TOTAL		12,044,350	11,286,386	94	593,025	5	-424,793	-4	
TRANS-PECOS									
Red Bluff Reservoir	61	307,000	70,840	23	-8,530	-3	7,460	2	
TOTAL		307,000	70,840	23	-8,530	-3	7,460	2	
EDWARDS PLATEAU									
E. V. Spence Reservoir	62	484,800	97,340	20	-3,660	-1	32,340	7	
Twin Buttes Reservoir	63	177,800	3,098	2	-1,935	-1	-12,898	-7	
O.C. Fisher Lake	64	119,200	12,240	10	-1,196	-1	1,166	1	
O. H. Ivie Reservoir	65	554,340	281,000	51	-10,700	-2	-118,500	-21	
Lake Buchanan	66	896,980	591,301	66	-16,302	-2	-280,037	-31	
Amistad Reservoir (Texas)	67	1,771,030	1,005,000	57	-93,000	-5	14,000	1	
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	1,164,000	37	-205,000	-7	-39,000	-1	
TOTAL		4,004,150	1,989,979	50	-126,793	-3	-363,929	-9	
SOUTH CENTRAL									
Somerville Lake	68	155,060	132,916	86	12,260	8	-22,144	-14	
Lake Travis	69	1,144,100	712,326	62	-56,007	-5	-402,139	-35	
Canyon Lake	70	385,600	353,067	92	943	0	-32,533	-8	
Coletto Creek Reservoir	71	35,060	31,850	91	4,010	11	380	1	
Medina Lake	72	254,000	156,900	62	-11,700	-5	-83,000	-33	
TOTAL		1,973,820	1,387,059	70	-50,494	-3	-539,436	-27	
UPPER COAST									
Lake Houston	73	128,860	128,860	100	0	0	0	0	
Lake Texana	74	157,900	155,900	99	19,600	12	-2,000	-1	
TOTAL		286,760	284,760	99	19,600	7	-2,000	-1	

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

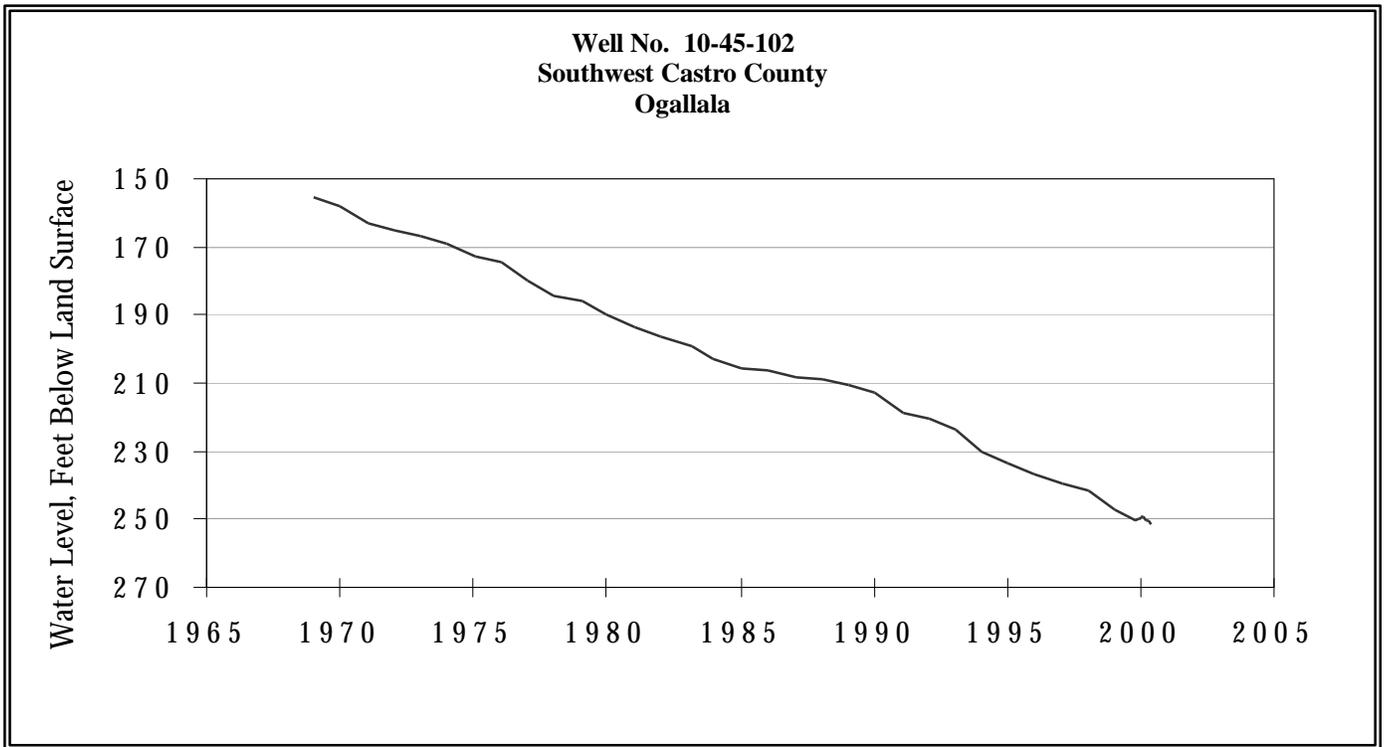
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late May 2000 (acre-feet) (%)	Change since Late April 2000 (acre-feet) (%)	Change since Late May 1999 (acre-feet) (%)
SOUTHERN					
Choke Canyon Reservoir	75	695,260	273,000 39	-4,000 -1	-77,518 -11
Lake Corpus Christi	76	241,240	123,000 51	-8,000 -3	-56,867 -24
Falcon Reservoir (Texas)	77	1,555,120	195,000 13	10,000 1	1,000 0
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	225,000 8	-88,000 -3	-105,000 -4
TOTAL		2,491,620	591,000 24	-2,000 0	-133,385 -5
 STATE TOTAL		 34,481,020	 26,037,436 76	 489,474 1	 -2,854,752 -8

Note:

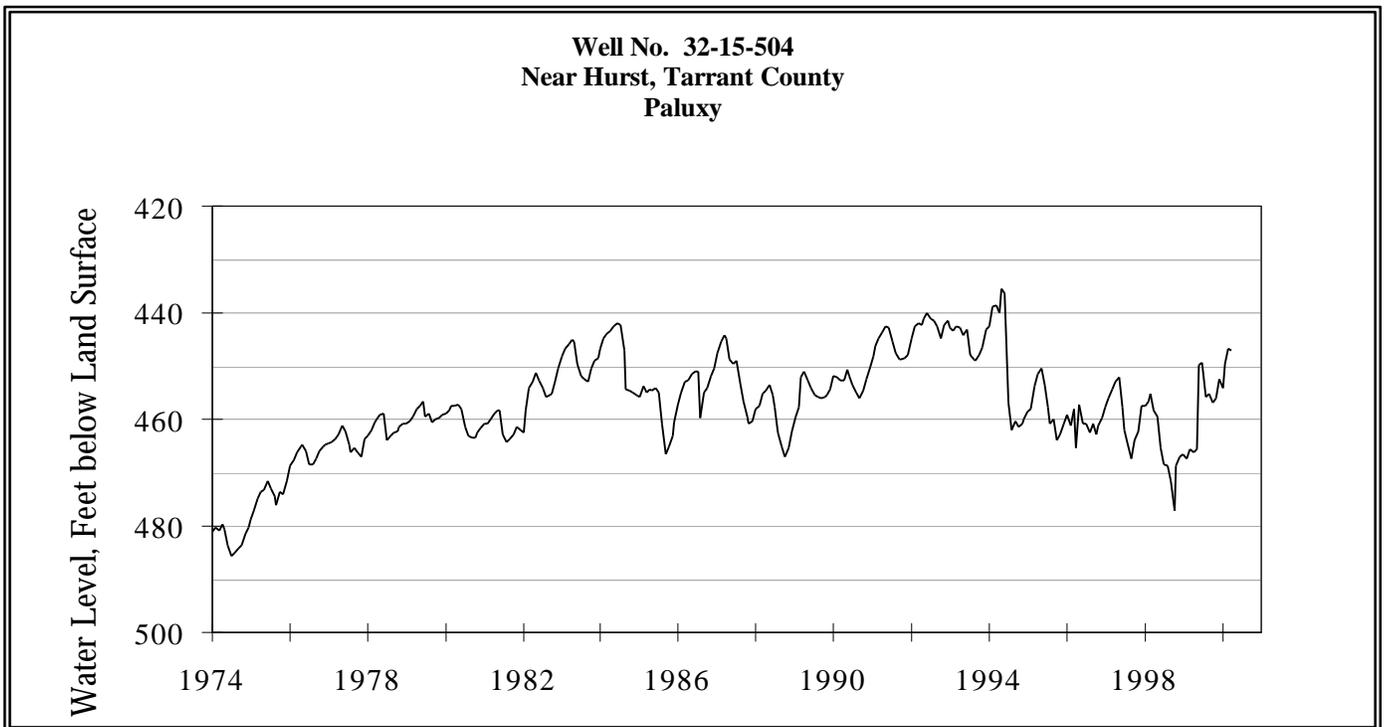
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included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

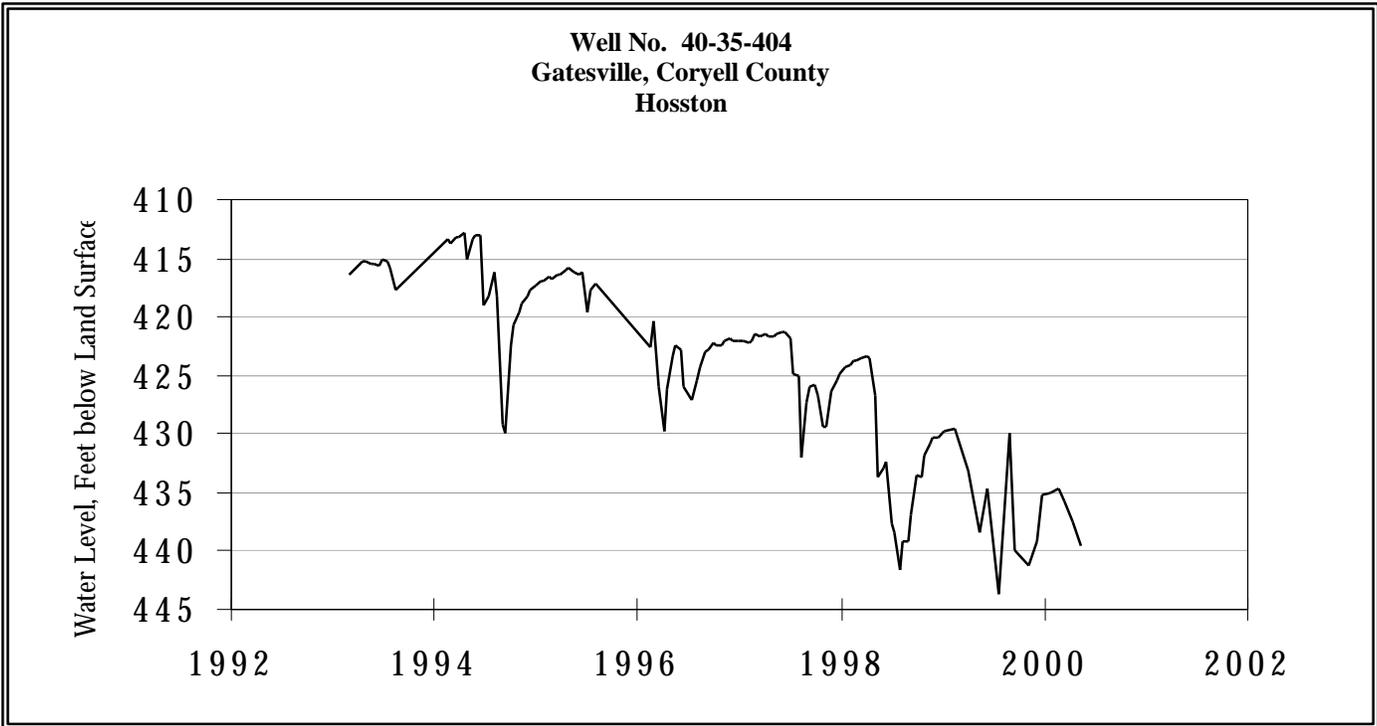
MAY GROUND WATER LEVELS IN OBSERVATION WELLS



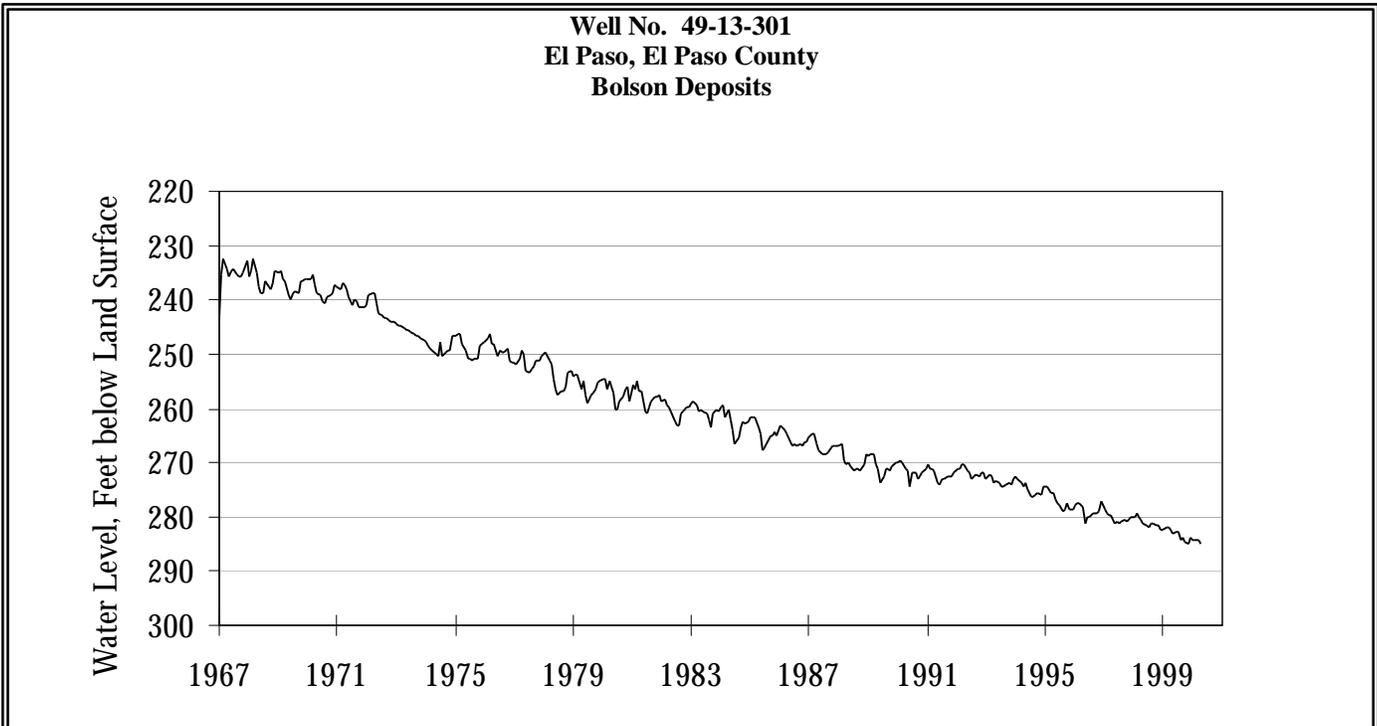
The May water-level measurement in this Ogallala aquifer well, elevation 3,816 feet above sea level, was 251.28 feet below land surface. This measurement was 0.70 feet below last month's measurement and 95.28 feet below the initial measurement recorded in 1968.



The May water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 448.65 feet below land surface. This measurement was 1.60 feet below last month's measurement, 17.00 feet above last year's measurement, and 55.26 feet below the initial measurement recorded in 1953.

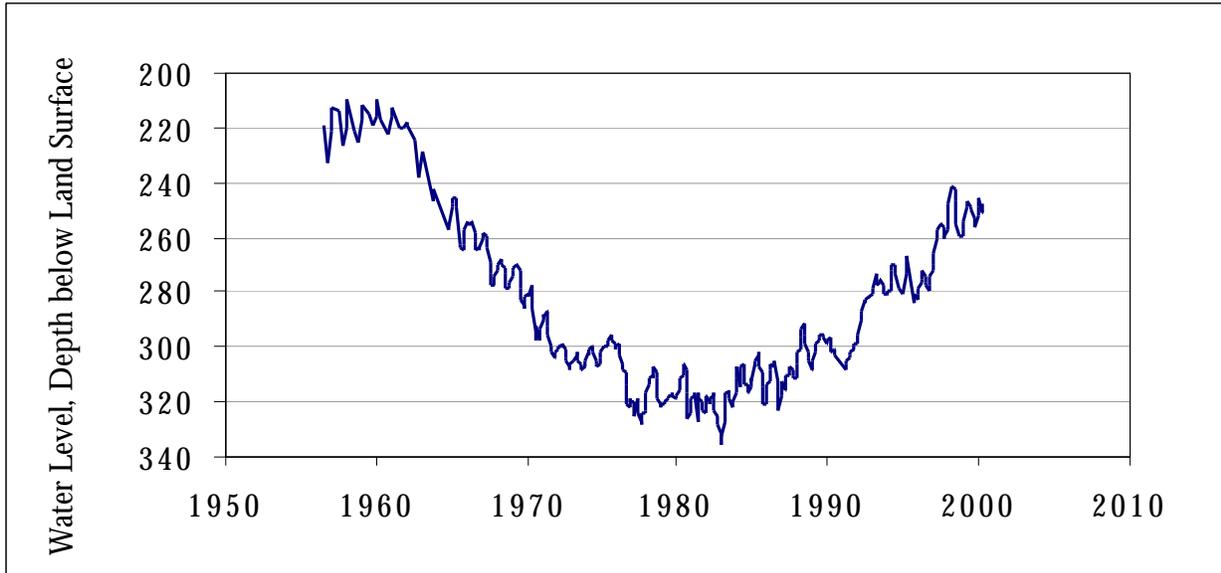


The May water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 439.57 feet below land surface. This measurement was 2.18 feet below last month's measurement, 7.08 feet below last year's measurement, and 147.57 feet below the initial measurement recorded in 1955.



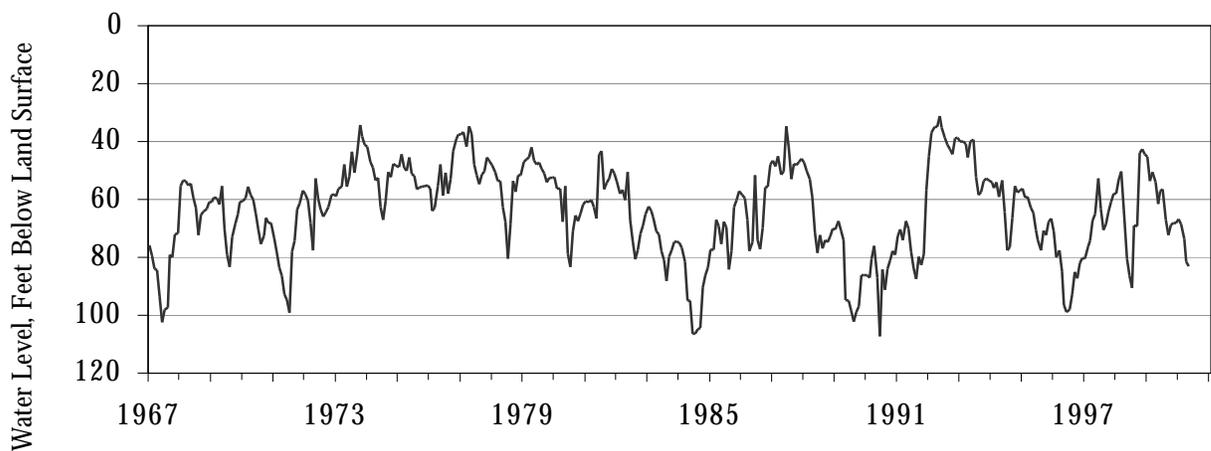
The May water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 285.24 feet below land surface. This was 0.40 feet below last month's measurement, 2.24 feet below last year's measurement, and 53.34 feet below the initial measurement recorded in 1964.

**Well No. 65-14-409
Alief, Harris County
Evangeline**



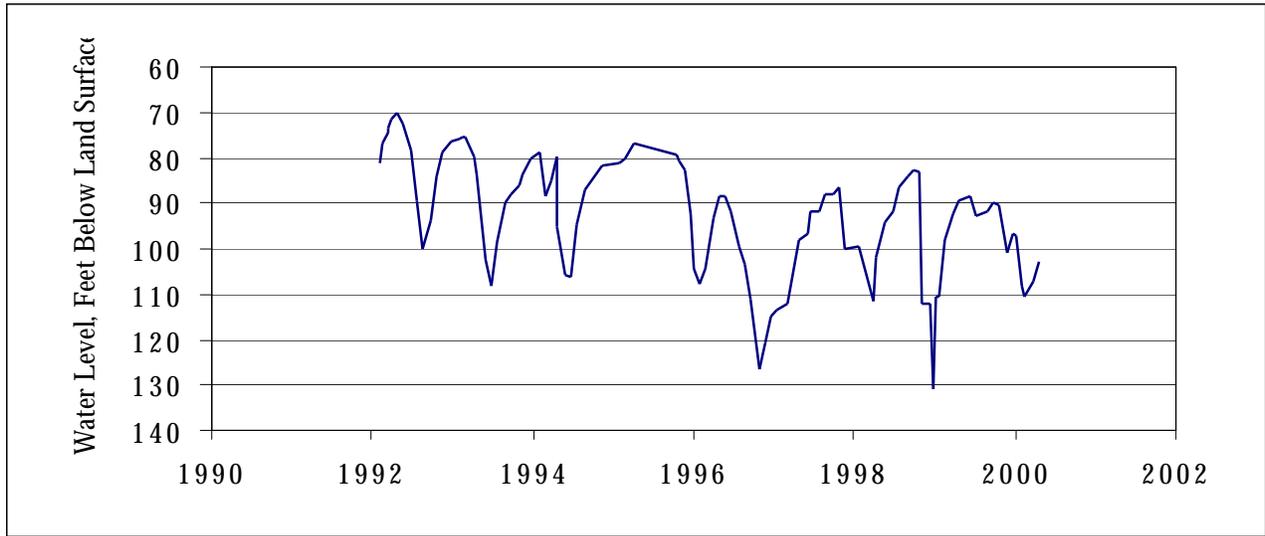
The May water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 247.88 feet below land surface. This was 3.21 feet above last month's measurement, 1.68 feet below last year's measurement, and 144.65 feet below the initial measurement recorded in 1947.

**Well No. 68-37-203 (J-17)
In San Antonio, Bexar County
Edwards and Associated Limestones**



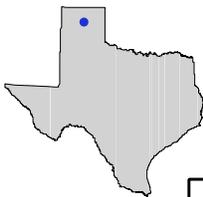
The May water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 83.10 feet below land surface. This was 1.33 feet below last month's measurement, 21.60 feet below last year's measurement, and 23.48 feet below the initial measurement recorded in 1962.

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



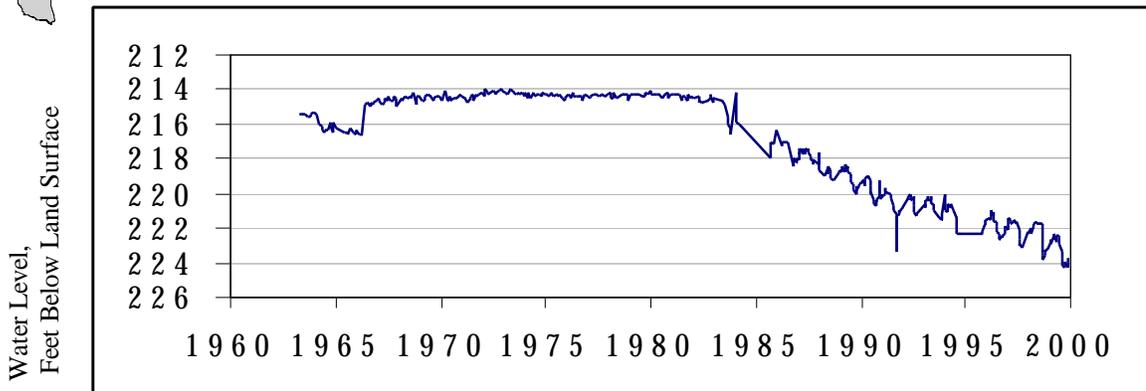
The May water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 99.50 feet below land surface. This measurement was 4.99 feet above last month's measurement of 104.49 feet below land surface, 9.34 feet below last year's measurement, and 18.25 feet below the initial 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. 07-12-401
Central Hartley County**



This 326-foot-deep recorder well, located approximately 16 miles southwest of the city of Dalhart, has an elevation of 3876 feet above sea level and is completed in the Ogallala aquifer. The graph illustrates both the seasonal cyclic water-level changes in response to irrigation demands and the general steady decline of the aquifer level.