

Texas Water Development Board



WATER Conditions

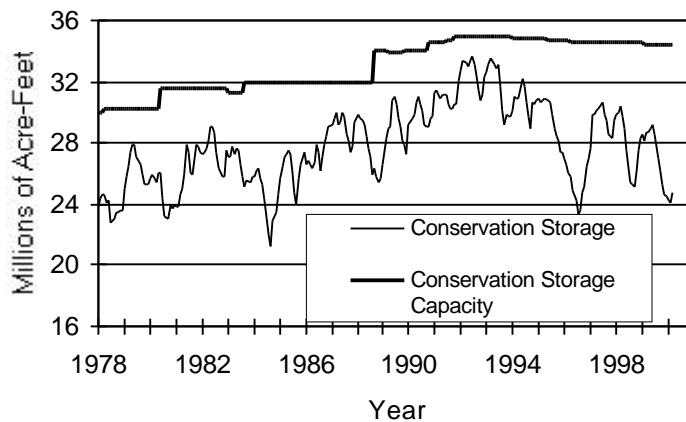
RESERVOIR STORAGE

March 2000

Near the end of March, the 77 reservoirs monitored for this report held 24.7 million acre-feet in conservation storage. This is 71.7 percent of the conservation storage capacity of the State's major reservoirs. Although storage increased by 0.69 million acre-feet (2.0% of conservation storage capacity) during the month, this is still the lowest percentage of total capacity for a March in 23 years of record, and the eleventh-lowest for all months in the record. This is the fifth consecutive month of record low reservoir levels, a string of lows beginning in November 1999. Compared to March 1999, storage decreased 3.90 million acre-feet (-11.3%).

Conservation storage during the month increased in all regions except for the Southern (-2.0%) and South Central (-2.3%). The largest increases occurred in the Low Rolling Plains (+5.4%), the Upper Coast (+3.4%), and the North Central (+2.9%). Of the monitored reservoirs, only 6 held 100 percent of conservation storage near the end of March.

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS



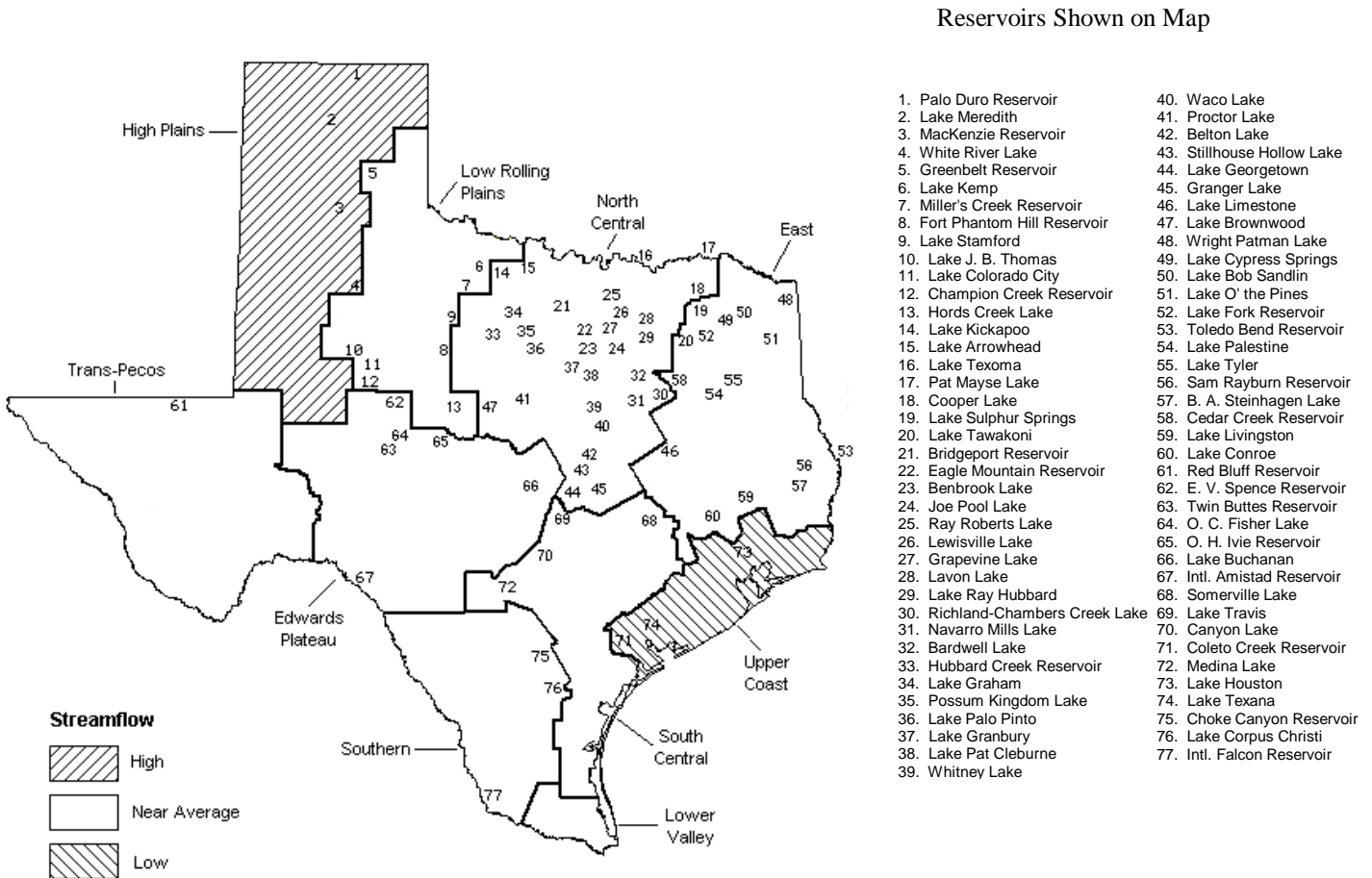
Current data are based on elevation near end of month at 77 reservoirs that represent 98 percent of total conservation storage capacity in Texas reservoirs having a capacity of 5,000 acre-feet or more.

STREAMFLOW

Of 23 reporting index stations in March, computed 30-day mean flows were very high (0% - 5% exceedance) at 2 stations, high (5% - 30% exceedance) at 3 stations, near normal (30% - 70% exceedance) at 10 stations, and low (70% - 95% exceedance) at 8. In comparison to February, flows increased at 11 index stations, decreased at 8 stations, and remained unchanged at 1 station.

Flows in March were below normal in the Upper Coast region, above normal in the High Plains, and normal in the remaining seven reporting regions. Fifteen stations, including all four reporting stations in East Texas, reported flow increases compared to last month. Only the gage on the Elm Creek at Ballinger reported a 30-day average flow of zero during March.

MARCH STREAMFLOW CONDITIONS



CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation		Change since		Change since		
		Storage Capacity (acre-feet)	Storage Late March 2000 (acre-feet) (%)	Late February 2000 (acre-feet) (%)	Late March 1999 (acre-feet) (%)			
HIGH PLAINS								
Palo Duro Reservoir	1	60,900	15,932 26	-313 -1	7,905 13			
Lake Meredith (Texas)	2	500,000	399,600 80	16,200 3	71,700 14			
Lake Meredith (Texas and Oklahoma)	(2)	779,560	399,600 51	16,200 2	71,700 9			
MacKenzie Reservoir	3	46,250	9,360 20	-110 0	2,355 5			
White River Lake	4	31,850	16,020 50	10 0	7,920 25			
TOTAL		639,000	440,912 69	15,787 2	89,880 14			
LOW ROLLING PLAINS								
Greenbelt Reservoir	5	58,200	22,490 39	-2,870 -5	-3,390 -6			
Lake Kemp	6	319,600	168,800 53	24,900 8	-100 0			
Miller's Creek Reservoir	7	27,890	10,800 39	200 1	-4,620 -17			
Fort Phantom Hill Reservoir	8	70,030	23,380 33	2,790 4	-2,739 -4			
Lake Stamford	9	52,700	10,520 20	-370 -1	-7,990 -15			
Lake J. B. Thomas	10	202,300	31,660 16	3,730 2	24,790 12			
Lake Colorado City	11	30,800	29,110 95	15,550 50	14,770 48			
Champion Creek Reservoir	12	41,600	5,280 13	280 1	-4,760 -11			
Hords Creek Lake	13	8,600	2,998 35	-112 -1	-1,776 -21			
TOTAL		811,720	305,038 38	44,098 5	14,185 2			
NORTH CENTRAL								
Lake Kickapoo	14	106,000	52,781 50	1,521 1	-14,007 -13			
Lake Arrowhead	15	262,100	125,500 48	-2,800 -1	-56,300 -21			
Lake Texoma	16	2,722,300	2,441,509 90	216,078 8	-139,760 -5			
Pat Mayse Lake	17	124,500	117,642 94	4,147 3	-3,680 -3			
Cooper Lake	18	273,000	263,773 97	34,177 13	6,272 2			
Lake Sulphur Springs	19	17,710	17,710 100	2,551 14	2,518 14			
Lake Tawakoni	20	936,200	751,200 80	12,400 1	-185,000 -20			
Bridgeport Reservoir	21	374,830	209,237 56	-452 0	-94,666 -25			
Eagle Mountain Reservoir	22	178,380	131,912 74	0 0	-19,788 -11			
Benbrook Lake	23	88,200	74,220 84	4,783 5	-13,114 -15			
Joe Pool Lake	24	175,800	160,014 91	3,026 2	-15,786 -9			
Ray Roberts Lake	25	798,760	569,739 71	-4,819 -1	-135,304 -17			
Lewisville Lake	26	555,000	341,189 61	10,888 2	-101,911 -18			
Grapevine Lake	27	187,700	129,318 69	0 0	-27,919 -15			
Lavon Lake	28	443,800	332,148 75	25,605 6	-111,652 -25			
Lake Ray Hubbard	29	413,420	413,420 100	0 0	0 0			
Richland-Chambers Creek Lake	30	1,103,820	945,518 86	-7,576 -1	-158,302 -14			
Navarro Mills Lake	31	55,810	39,992 72	-1,238 -2	-15,818 -28			
Bardwell Lake	32	53,580	42,195 79	3,575 7	-11,385 -21			
Hubbard Creek Reservoir	33	317,800	190,600 60	-5,100 -2	-66,200 -21			
Lake Graham	34	45,000	38,220 85	-400 -1	-6,510 -14			
Poosum Kingdom Lake	35	551,820	461,300 84	37,900 7	178,428 32			
Lake Palo Pinto	36	42,200	27,443 65	-547 -1	-4,942 -12			
Lake Granbury	37	135,680	119,100 88	5,207 4	-11,828 -9			
Lake Pat Cleburne	38	25,300	15,854 63	-166 -1	-9,446 -37			
Whitney Lake	39	622,800	429,600 69	700 0	-26,803 -4			
Waco Lake	40	144,500	113,505 79	2,945 2	-30,995 -21			
Proctor Lake	41	55,590	19,391 35	-646 -1	-16,701 -30			
Belton Lake	42	434,500	370,801 85	-1,115 0	-63,699 -15			
Stillhouse Hollow Lake	43	226,060	210,235 93	1,389 1	-15,825 -7			
Lake Georgetown	44	37,010	23,962 65	-768 -2	-13,048 -35			
Granger Lake	45	54,280	53,139 98	1,289 2	-1,141 -2			
Lake Limestone	46	215,750	172,900 80	700 0	-42,850 -20			
Lake Brownwood	47	143,400	80,050 56	-1,800 -1	-30,250 -21			
TOTAL		11,922,600	9,485,117 80	341,454 3	-1,260,590 -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 February 2000		Change since Late March 1999		
			Late March 2000 (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	2,760	4	0	0	
Lake Bob Sandlin	50	202,300	187,600	93	4,200	2	-14,700	-7	
Lake O' the Pines	51	252,000	252,000	100	17,936	7	0	0	
Lake Fork Reservoir	52	635,200	605,100	95	10,000	2	-30,100	-5	
Toledo Bend Reservoir	53	4,472,900	3,612,000	81	169,000	4	-589,000	-13	
Lake Palestine	54	411,300	375,400	91	14,600	4	-35,900	-9	
Lake Tyler	55	73,700	61,595	84	2,341	3	-12,105	-16	
Sam Rayburn Reservoir	56	2,876,300	1,915,000	67	105,000	4	-961,300	-33	
B. A. Steinhagen Lake	57	94,200	55,581	59	16,970	18	-28,656	-30	
Cedar Creek Reservoir	58	637,050	548,075	86	-886	0	-88,975	-14	
Lake Livingston	59	1,750,000	1,750,000	100	0	0	0	0	
Lake Conroe	60	429,900	372,300	87	-2,900	-1	-44,100	-10	
TOTAL		12,044,350	9,944,151	83	339,021	3	-1,804,836	-15	
TRANS-PECOS									
Red Bluff Reservoir	61	307,000	89,910	29	370	0	17,790	6	
TOTAL		307,000	89,910	29	370	0	17,790	6	
EDWARDS PLATEAU									
E. V. Spence Reservoir	62	484,800	98,560	20	43,290	9	28,730	6	
Twin Buttes Reservoir	63	177,800	5,611	3	-688	0	-9,394	-5	
O.C. Fisher Lake	64	119,200	14,680	12	7,102	6	2,883	2	
O. H. Ivie Reservoir	65	554,340	301,400	54	-7,600	-1	-110,500	-20	
Lake Buchanan	66	896,980	607,418	68	555	0	-239,405	-27	
Amistad Reservoir (Texas)	67	1,771,030	1,048,000	59	-3,000	0	39,000	2	
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	1,418,000	45	3,000	0	32,000	1	
TOTAL		4,004,150	2,075,669	52	39,659	1	-288,686	-7	
SOUTH CENTRAL									
Somerville Lake	68	155,060	119,110	77	-24,244	-16	-35,950	-23	
Lake Travis	69	1,144,100	818,047	72	-11,998	-1	-326,053	-28	
Canyon Lake	70	385,600	355,036	92	-1,026	0	-30,564	-8	
Coletto Creek Reservoir	71	35,060	27,990	80	270	1	-3,830	-11	
Medina Lake	72	254,000	179,300	71	-7,500	-3	-67,704	-27	
TOTAL		1,973,820	1,499,483	76	-44,498	-2	-464,101	-24	
UPPER COAST									
Lake Houston	73	128,860	111,400	86	1,900	1	-17,460	-14	
Lake Texana	74	157,900	118,500	75	7,800	5	-39,400	-25	
TOTAL		286,760	229,900	80	9,700	3	-56,860	-20	

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

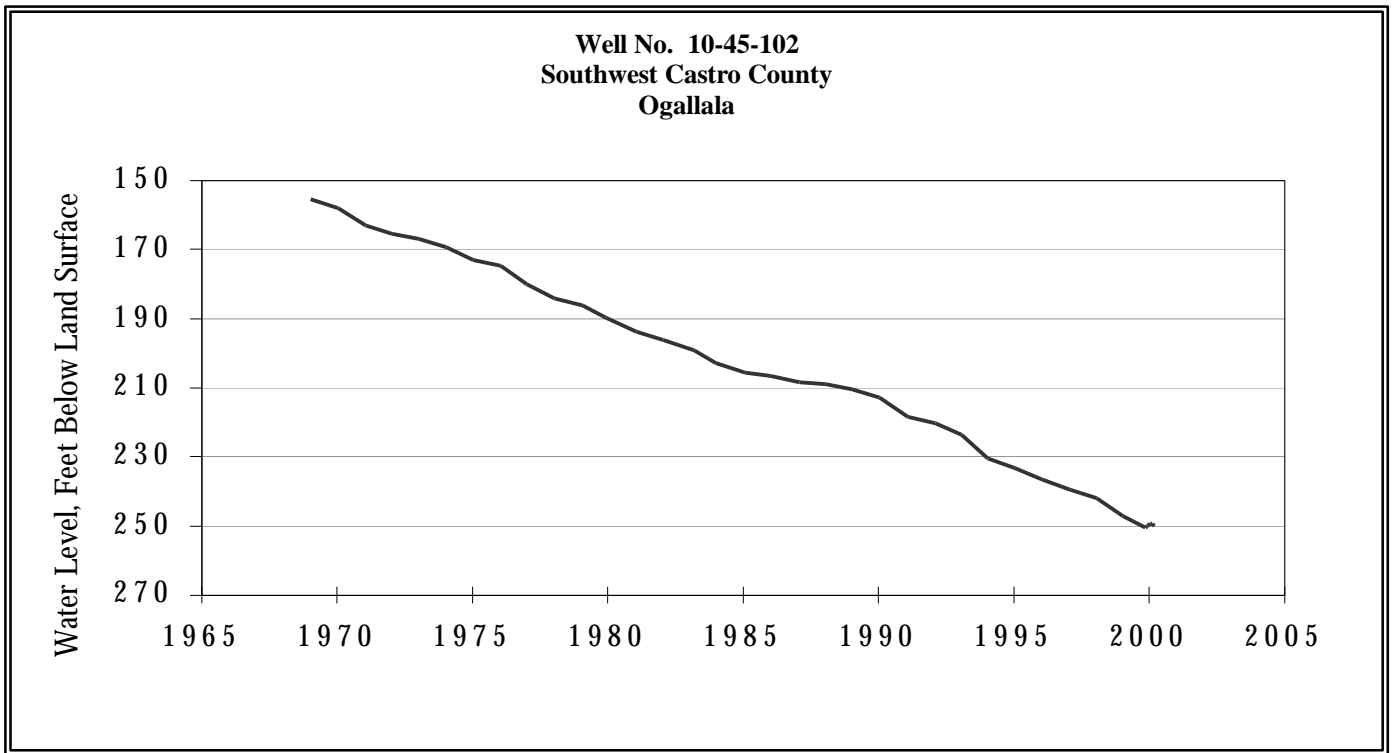
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late March 2000 (acre-feet) (%)	Change since Late February 2000 (acre-feet) (%)	Change since Late March 1999 (acre-feet) (%)
SOUTHERN					
Choke Canyon Reservoir	75	695,260	283,000 41	-3,000 0	-75,359 -11
Lake Corpus Christi	76	241,240	145,800 60	4,100 2	-40,463 -17
Falcon Reservoir (Texas)	77	1,555,120	238,000 15	-52,000 -3	-32,000 -2
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	546,000 21	-47,000 -2	17,000 1
TOTAL		2,491,620	666,800 27	-50,900 -2	-147,822 -6
 STATE TOTAL		 34,481,020	 24,736,980 72	 694,691 2	 -3,897,862 -11

Note:

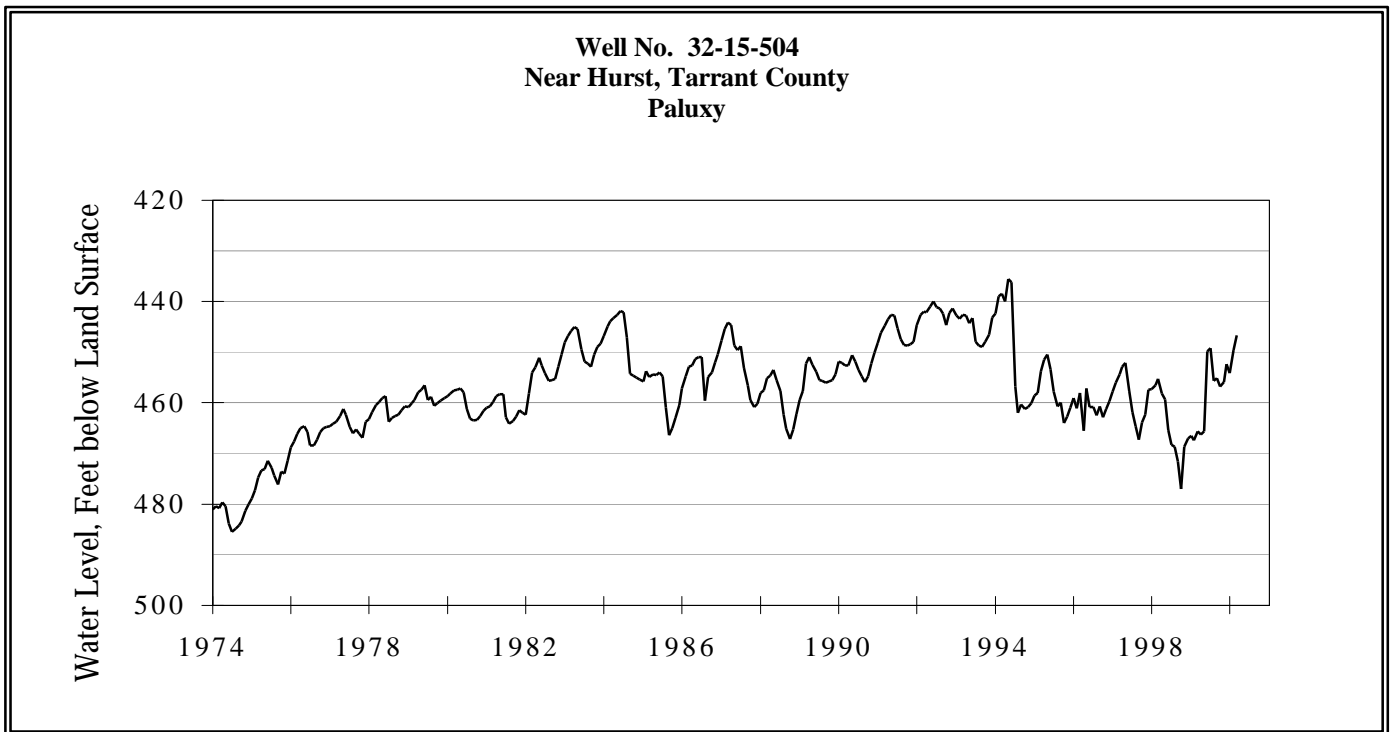
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included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

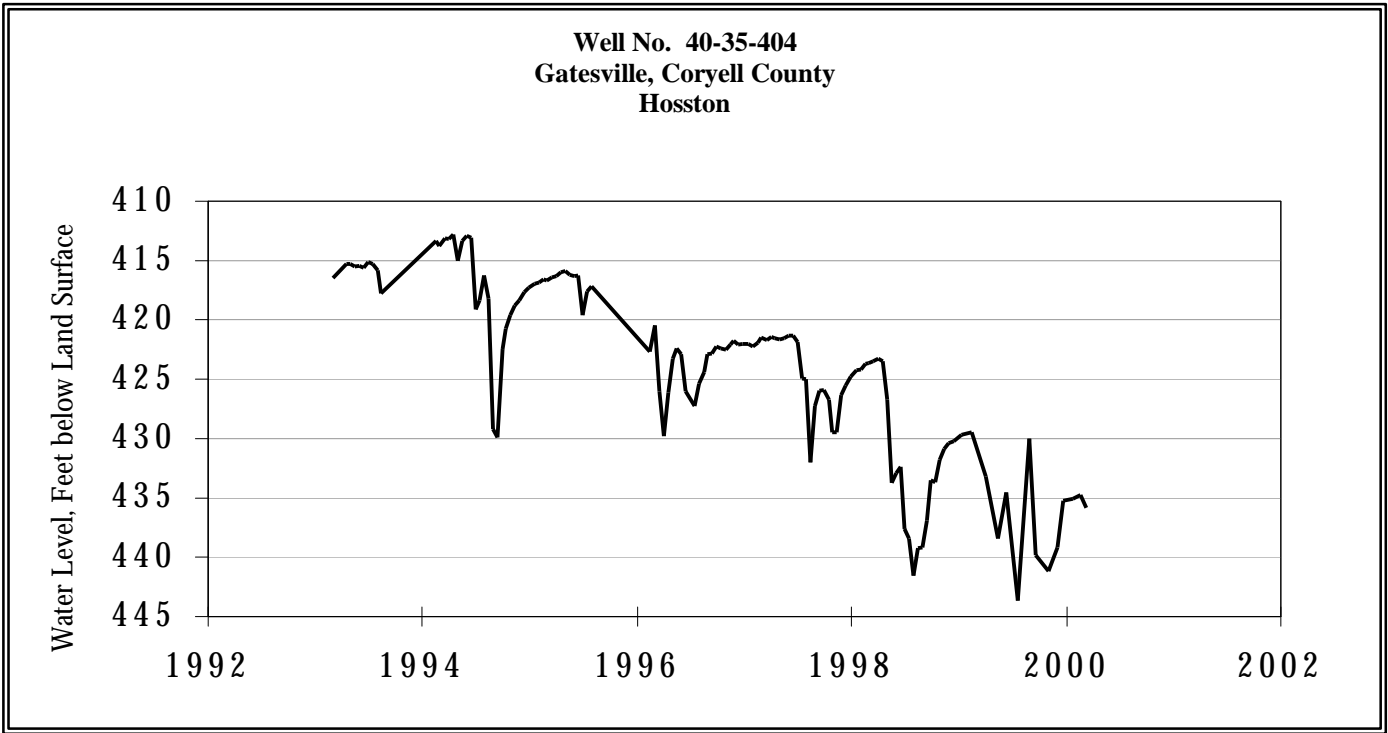
MARCH GROUND WATER LEVELS IN OBSERVATION WELLS



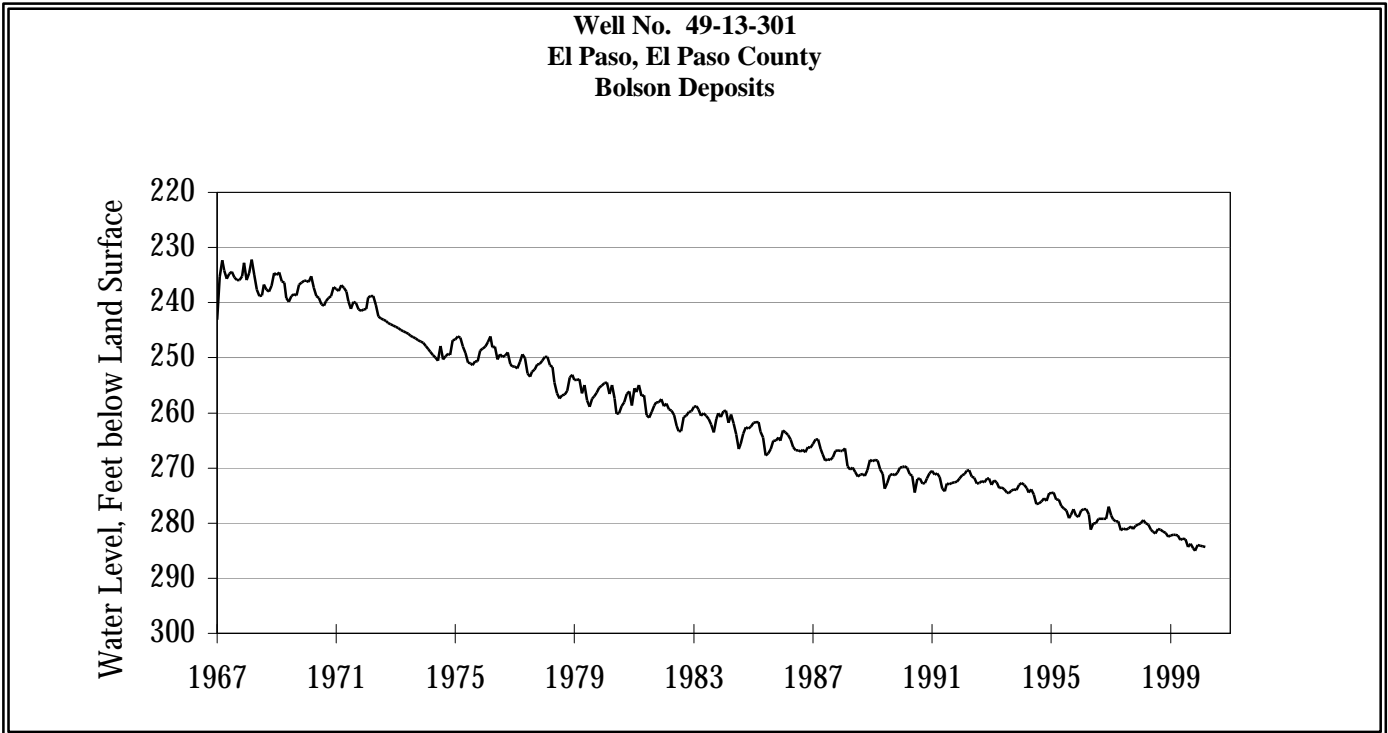
The March water-level measurement in this Ogallala aquifer well, elevation 3,816 feet above sea level, was 250.17 feet below land surface. This measurement was 0.82 feet below last month's measurement and 94.17 feet below the initial measurement recorded in 1968.



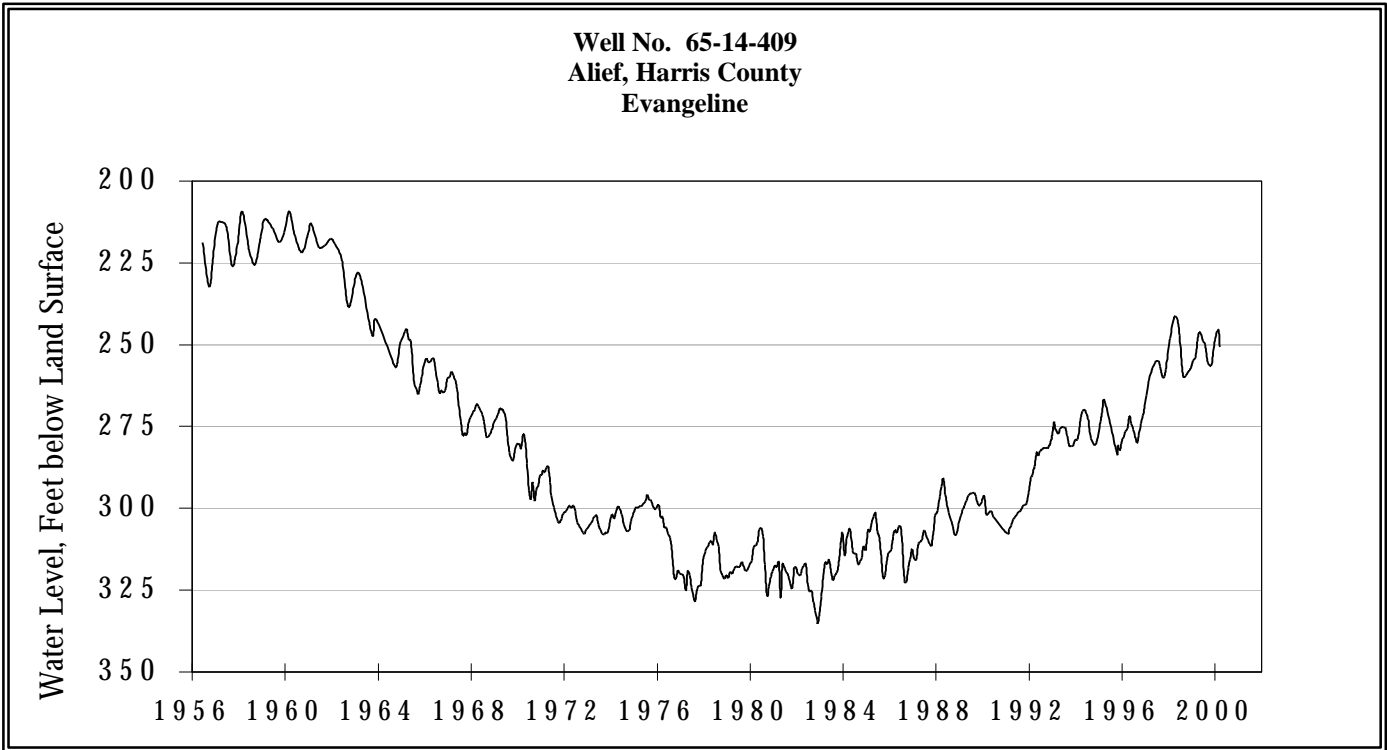
The March water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 446.75 feet below land surface. This measurement was 2.91 feet above last month's measurement, 18.89 feet above last year's measurement, and 53.36 feet below the initial measurement recorded in 1953.



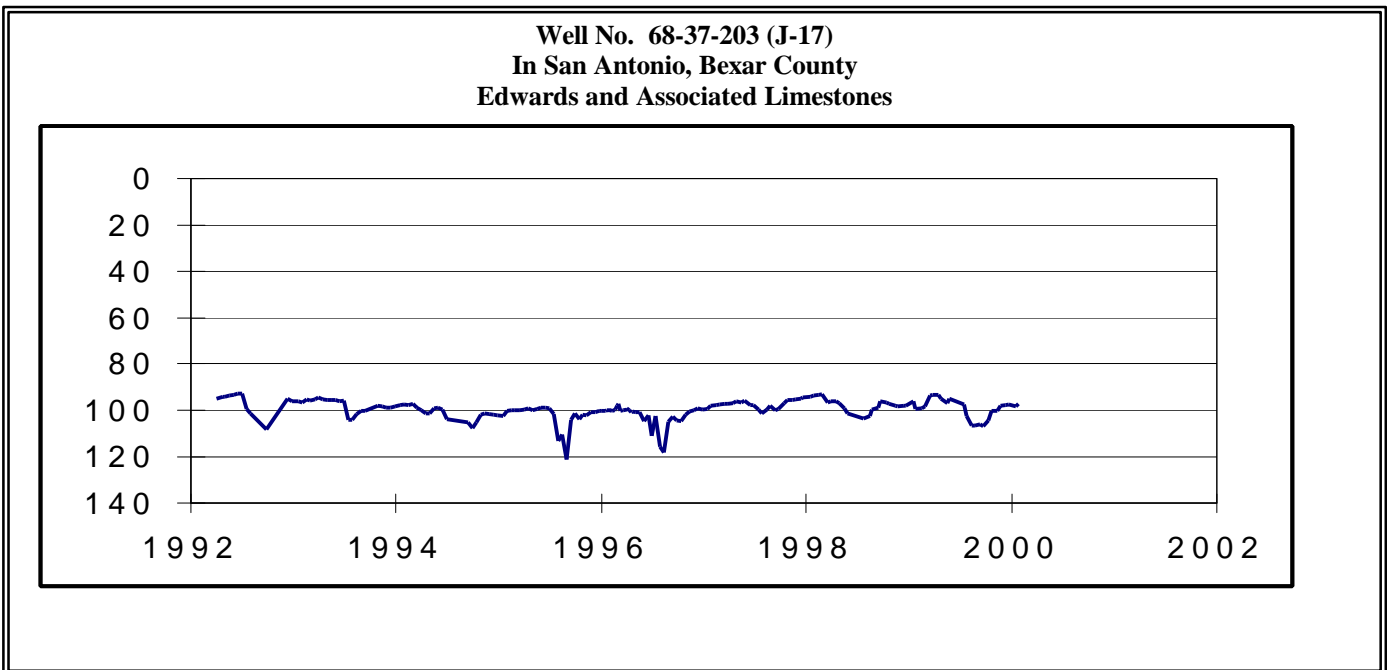
The March water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 435.83 feet below land surface. This measurement was 1.09 feet below last month's measurement, 6.23 feet below last year's measurement, and 143.83 feet below the initial measurement recorded in 1955.



The March water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 284.27 feet below land surface. This was 0.12 of a foot below last month's measurement, 2.18 feet below last year's measurement, and 52.37 feet below the initial measurement recorded in 1964.

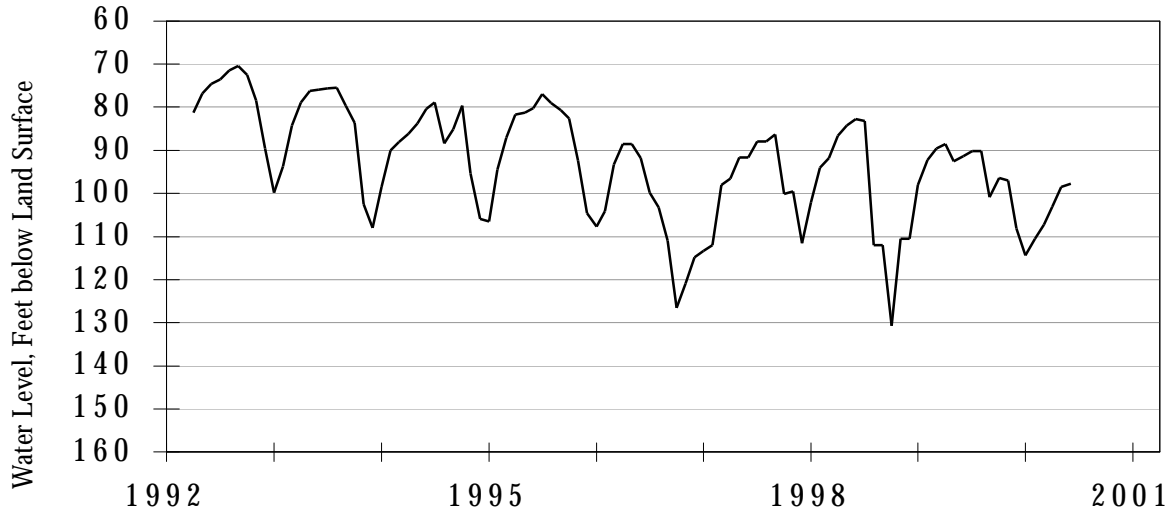


The March water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 250.78 feet below land surface. This was 5.31 feet below last month's measurement, 1.92 feet below last year's measurement, and 147.55 feet below the initial measurement recorded in 1947.



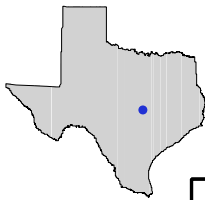
The March water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 73.82 feet below land surface. This was 5.17 feet below last month's measurement, 23.22 feet below last year's measurement, and 14.20 feet below the initial measurement recorded in 1962.

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



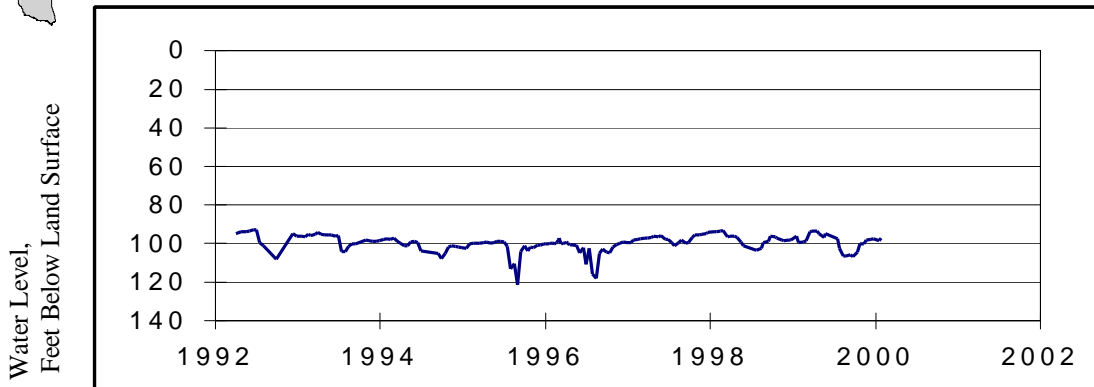
The March water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was not available.

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. 42-63-802
Southeast McCulloch County**



This 345-foot-deep recorder well near Voca is at an elevation of 1559 feet above sea level and is completed in the Hickory aquifer. The graph illustrates the cyclic nature of the water-level change in response to seasonal demands; the summers of 1995 and 1996 experienced the greatest amount of pumpage.