

Texas Water Development Board

WATER Conditions

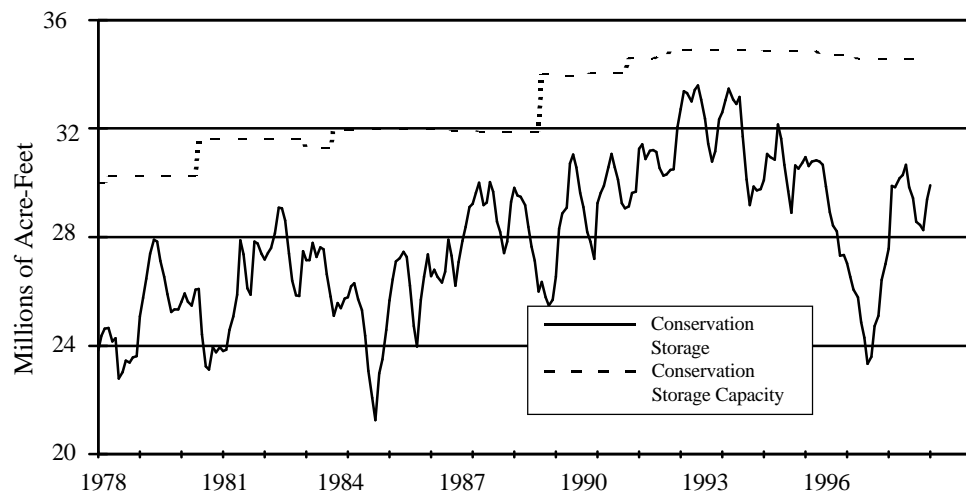
RESERVOIR STORAGE

February 1998

Near the end of January, the 77 reservoirs monitored for this report held 29,912,260 acre-feet in conservation storage. This was 87 percent of the conservation storage capacity of the State's major reservoirs. Compared to last month, storage has increased 510,400 acre-feet. Compared to this month last year, storage has increased 2,335,880 acre-feet.

Of the monitored reservoirs, 31 held 100 percent or more of their conservation storage capacities near the end of January. Lakes Sulphur Springs, Tawakoni, Eagle Mountain, Richland-Chambers, Granbury, Pat Cleburne, Cypress Springs, Bob Sandlin, Toledo Bend, Palestine, Tyler, Cedar Creek, and Coletto Creek were full and spilling. An additional amount of water (acre-feet) was contained in the flood storage pool in each of the reservoirs as follows: Pat Mayse, 10,500; Cooper, 3,600; Benbrook, 610; Joe Pool, 520; Ray Roberts, 2,640; Lewisville, 28,220; Lavon, 17,330; Navarro, 40,970; Bardwell, 10,110; Waco, 12,460; Belton, 1,440; Stillhouse, 1,490; Georgetown, 160; Granger, 1,440; Wright Patman, 414,860; Lake O' the Pines, 54,350; Sam Rayburn, 748,880; and Somerville, 960.

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.

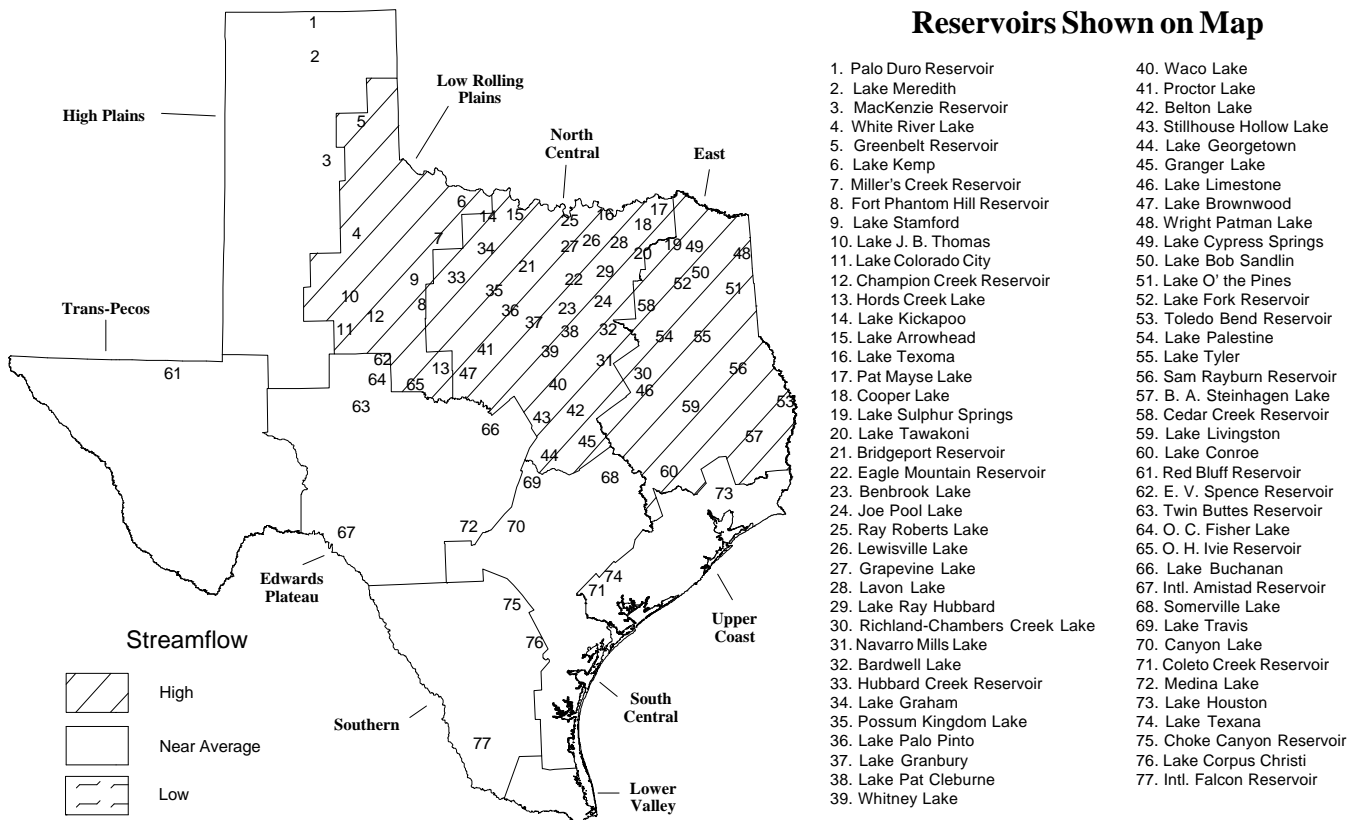
STREAMFLOW

Streamflow conditions across Texas ranged from near-normal to above-normal during the month of January. North-central Texas and southeast Texas received above-normal rainfall for January and all streams in these areas remain above base flow. Elsewhere across the State rainfall and runoff were normal for the month of January. The following is a summary of the measured flows at various index stations across the State.

The index station for the East Texas climatic division is located on the Neches River near Clifton. Streamflow past the gage was above-normal, averaging 179 cfs, or 493 percent of the monthly reference period median. This was 77 cfs above the station's near-normal flow level. Elsewhere across the State, the index station for the Edwards Plateau is located on the North Concho River near Carlsbad. Streamflow past the gage was near-normal, averaging 2.91 cfs, or 186 percent of the monthly reference period median. This was 0.87 cfs below the station's above-normal flow level. The index station for South-central Texas is located on the Guadalupe River near Spring Branch. Streamflow past the gage was near-normal, averaging 299 cfs, or 161 percent of the monthly reference period median. This was 107 cfs below the station's near-normal flow level.

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STREAMFLOW CONDITIONS FOR JANUARY COMPARED WITH PAST RECORD



CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. :	Conservation: Storage Capacity :	Conservation Storage in Acre-Feet and as Percent of Conservation Storage Capacity					
			Map:	(acre-feet) :	Late Jan 1998 :	Late Dec 1997 :	Late Jan 1997	
HIGH PLAINS								
Palo Duro Reservoir	1	60,900	7,100	12	7,620	13	11,290	19
Lake Meredith (Texas)	2	500,000	384,440	77	383,770	77	361,990	72
Lake Meredith (Texas and Oklahoma)	(2)	(779,560)	(384,440)	(49)	(383,770)	(49)	(361,990)	(46)
MacKenzie Reservoir	3	46,250	8,580	19	8,460	18	7,590	16
White River Lake	4	31,850	12,670	40	12,870	40	7,420	23
TOTAL		639,000	412,790	65	412,720	65	388,290	61
LOW ROLLING PLAINS								
Greenbelt Reservoir	5	58,200	27,750	48	27,510	47	21,370	37
Lake Kemp	6	319,600	252,950	79	247,540	77	203,970	64
Miller's Creek Reservoir	7	27,890	11,550	41	11,640	42	11,550	41
Fort Phantom Hill Reservoir	8	70,030	58,880	84	60,290	86	55,820	80
Lake Stamford	9	52,700	29,800	57	29,200	55	21,290	40
Lake J. B. Thomas	10	202,300	16,280	8	16,580	8	9,100	4
Lake Colorado City	11	30,800	19,510	63	19,800	64	18,100	59
Champion Creek Reservoir	12	41,600	20,160	48	20,100	48	20,840	50
Hords Creek Lake	13	8,600	6,540	76	6,660	77	6,390	74
TOTAL		811,720	443,420	55	439,320	54	368,430	45
NORTH CENTRAL								
Lake Kickapoo	14	106,000	56,880	54	58,130	55	64,250	61
Lake Arrowhead	15	262,100	207,970	79	204,970	78	195,670	75
Lake Texoma	16	2,722,300	2,620,900	96	2,722,300	100	2,547,500	94
Pat Mayse Lake	17	124,500	124,500	100	124,500	100	123,000	99
Cooper Lake	18	273,000	273,000	100	273,000	100	273,000	100
Lake Sulphur Springs	19	17,710	17,710	100	17,710	100	17,710	100
Lake Tawakoni	20	936,200	936,200	100	936,200	100	791,800	85
Bridgeport Reservoir	21	374,830	343,600	92	336,000	90	326,000	87
Eagle Mountain Reservoir	22	178,380	178,380	100	169,360	95	178,380	100
Benbrook Lake	23	88,200	88,200	100	88,200	100	88,200	100
Joe Pool Lake	24	175,800	175,800	100	175,800	100	166,090	94
Ray Roberts Lake	25	798,760	798,760	100	770,850	97	797,580	99
Lewisville Lake	26	555,000	555,000	100	541,250	98	555,000	100
Grapevine Lake	27	187,700	181,590	97	173,420	92	180,130	96
Lavon Lake	28	443,800	443,800	100	443,800	100	443,800	100
Lake Ray Hubbard	29	490,000	489,200	99	490,000	100	486,500	99
Richland-Chambers Creek Lake	30	1,103,820	1,103,820	100	1,103,820	100	921,180	83
Navarro Mills Lake	31	55,810	55,810	100	55,810	100	55,110	99
Bardwell Lake	32	53,580	53,580	100	53,580	100	51,150	95
Hubbard Creek Reservoir	33	317,800	296,100	93	293,000	92	314,400	99
Lake Graham	34	45,000	44,800	99	45,000	100	45,000	100
Possum Kingdom Lake	35	551,820	472,680	86	472,400	86	534,540	97
Lake Palo Pinto	36	42,200	34,860	83	34,900	83	41,530	98
Lake Granbury	37	135,680	135,680	100	135,680	100	135,680	100
Lake Pat Cleburne	38	25,300	25,300	100	24,200	96	19,650	78
Whitney Lake	39	622,800	577,810	93	527,080	85	599,530	96
Waco Lake	40	144,550	144,550	100	144,550	100	144,550	100

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

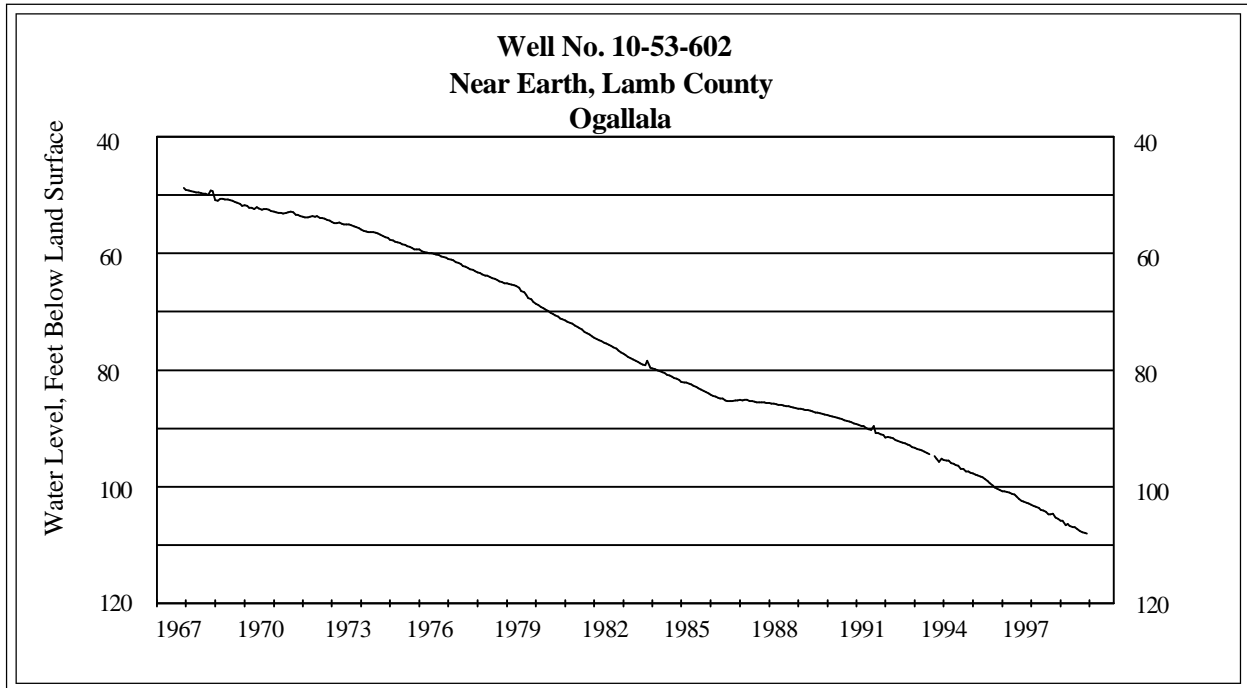
Name of Lake or Reservoir	: No. :	: Conservation: Storage Capacity :	Conservation Storage in Acre-Feet and as Percent of Conservation Storage Capacity					
			: Map: (acre-feet) :	Late Jan 1998 :	Late Dec 1997 :	Late Jan 1997		
NORTH CENTRAL (continued)								
Proctor Lake	41	55,590	51,320	92	48,800	88	55,590	100
Belton Lake	42	434,500	434,500	100	434,500	100	434,500	100
Stillhouse Hollow Lake	43	226,060	226,060	100	226,030	99	226,060	100
Lake Georgetown	44	37,010	37,010	100	36,990	99	32,440	88
Granger Lake	45	54,280	54,280	100	54,280	100	54,280	100
Lake Limestone	46	215,750	214,020	99	211,510	98	152,260	71
Lake Brownwood	47	143,400	125,200	87	125,200	87	142,700	99
TOTAL		11,999,230	11,578,870	96	11,552,820	96	11,194,760	93
EAST								
Wright Patman Lake	48	142,700	142,700	100	142,700	100	142,700	100
Lake Cypress Springs	49	66,800	66,800	100	66,800	100	66,800	100
Lake Bob Sandlin	50	202,300	202,300	100	202,170	99	202,300	100
Lake O' the Pines	51	252,000	252,000	100	252,000	100	252,000	100
Lake Fork Reservoir	52	635,200	623,200	98	621,830	98	628,110	99
Toledo Bend Reservoir	53	4,472,900	4,472,900	100	4,020,000	90	4,109,000	92
Lake Palestine	54	411,300	411,300	100	411,300	100	380,200	92
Lake Tyler	55	73,700	73,700	100	73,700	100	72,510	98
Sam Rayburn Reservoir	56	2,876,300	2,876,300	100	2,876,300	100	2,158,230	75
B. A. Steinhagen Lake	57	94,200	91,540	97	82,630	88	89,680	95
Cedar Creek Reservoir	58	637,050	637,050	100	637,050	100	547,100	86
Lake Livingston	59	1,750,000	1,745,000	99	1,750,000	100	1,750,000	100
Lake Conroe	60	429,900	422,870	98	416,970	97	416,770	97
TOTAL		12,044,350	12,017,660	99	11,553,450	96	10,815,400	90
TRANS-PECOS								
Red Bluff Reservoir	61	307,000	96,050	31	92,510	30	77,030	25
TOTAL		307,000	96,050	31	92,510	30	77,030	25
EDWARDS PLATEAU								
E. V. Spence Reservoir	62	484,800	123,100	25	125,000	26	113,000	23
Twin Buttes Reservoir	63	177,800	45,040	25	43,510	24	68,830	39
O. C. Fisher Lake	64	119,200	16,050	13	16,230	14	17,630	15
O. H. Ivie Reservoir	65	554,340	509,360	92	508,860	92	423,860	76
Lake Buchanan	66	896,980	839,520	94	819,480	91	631,840	70
Amistad Reservoir (Texas)	67	1,771,030	882,860	50	897,460	51	845,570	48
Amistad Reservoir (Texas and Mexico)	(67)	(3,151,300)	(1,483,600)	(47)	(1,485,220)	(47)	(1,260,650)	(40)
TOTAL		4,004,150	2,415,930	60	2,410,540	60	2,100,730	52
SOUTH CENTRAL								
Somerville Lake	68	155,060	155,060	100	155,060	100	155,060	100
Lake Travis	69	1,144,100	1,141,340	99	1,097,270	96	1,087,440	95
Canyon Lake	70	385,600	381,610	99	382,930	99	381,200	99
Coletto Creek Reservoir	71	35,060	35,060	100	34,760	99	27,230	78
Medina Lake	72	254,000	220,350	87	220,910	87	70,500	28
TOTAL		1,973,820	1,933,420	98	1,890,930	96	1,721,430	87

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

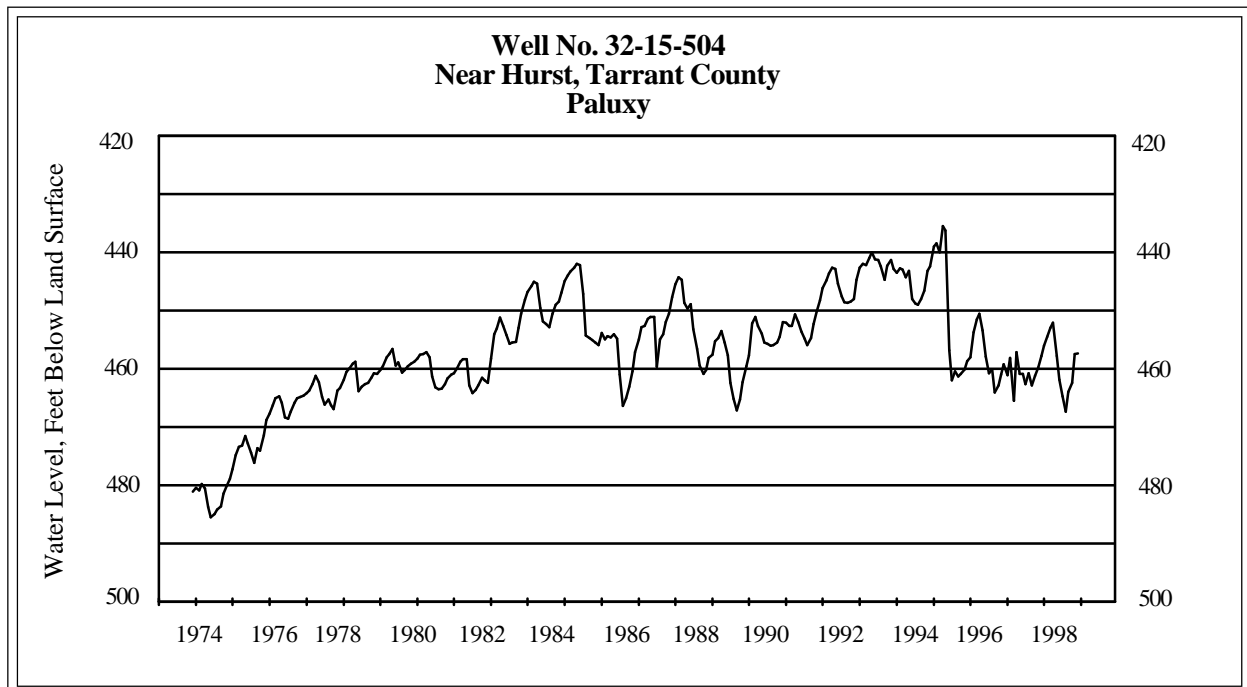
Name of Lake or Reservoir	No.:	Conservation: Storage Capacity (acre-feet)	Conservation Storage in Acre-Feet and as Percent of Conservation Storage Capacity					
			Late Jan 1998	Late Dec 1997	Late Jan 1997			
UPPER COAST								
Lake Houston	73	128,860	122,300	95	128,860	100	128,860	100
Lake Texana	74	157,900	157,360	99	157,900	100	157,900	100
TOTAL		286,760	279,660	98	286,760	100	286,760	100
SOUTHERN								
Choke Canyon Reservoir	75	695,260	272,100	39	275,000	40	170,950	25
Lake Corpus Christi	76	241,240	164,830	68	170,010	70	112,100	46
Falcon Reservoir (Texas)	77	1,555,120	297,530	19	317,800	20	340,500	22
Falcon Reservoir (Texas and Mexico)	(77)	(2,653,290)	(534,260)	(20)	(545,610)	(21)	(598,300)	(23)
TOTAL		2,491,620	971,190	39	762,810	31	623,550	25
STATE TOTAL		34,557,650	29,912,260	87	29,401,860	85	27,576,380	80

NOTES: 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). Percentages are based on the conservation storage capacity of and the conservation storage in the reservoirs for date shown. 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; these estimates may be subject to revision on completion of international water accounting. Figures in parentheses show the total conservation storage for both Texas (United States' share) and Mexico and are not included in State total.

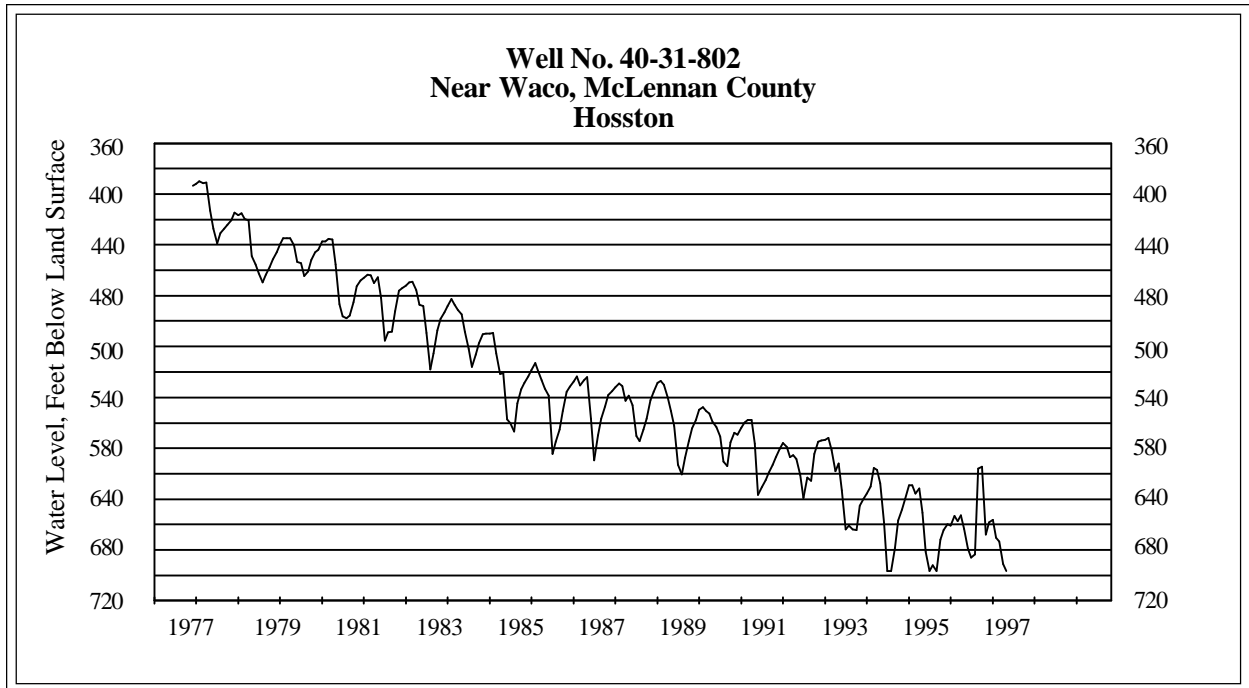
GROUND WATER LEVELS IN OBSERVATION WELLS



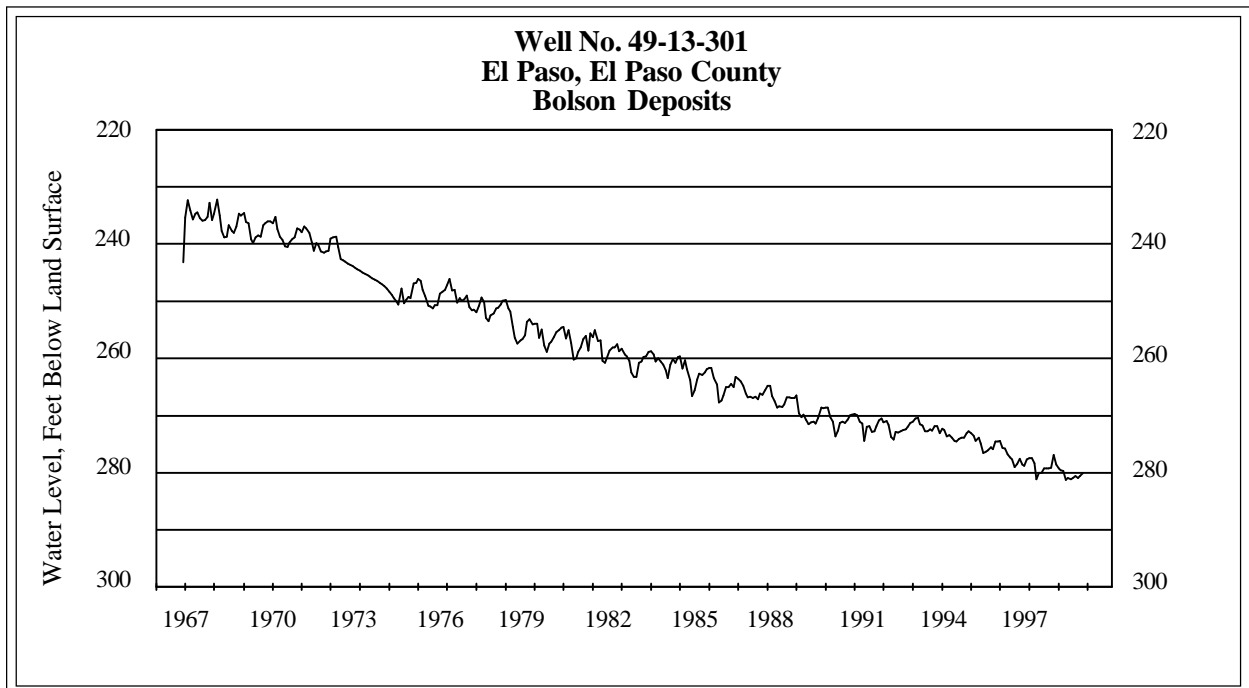
The January water-level measurement in this Ogallala aquifer well, elevation 3667 feet above sea level, was 108.01 feet below land surface. This was 0.07 of a foot below last month's measurement, 2.45 feet below last year's measurement, and 79.86 feet below the initial measurement recorded in 1950.



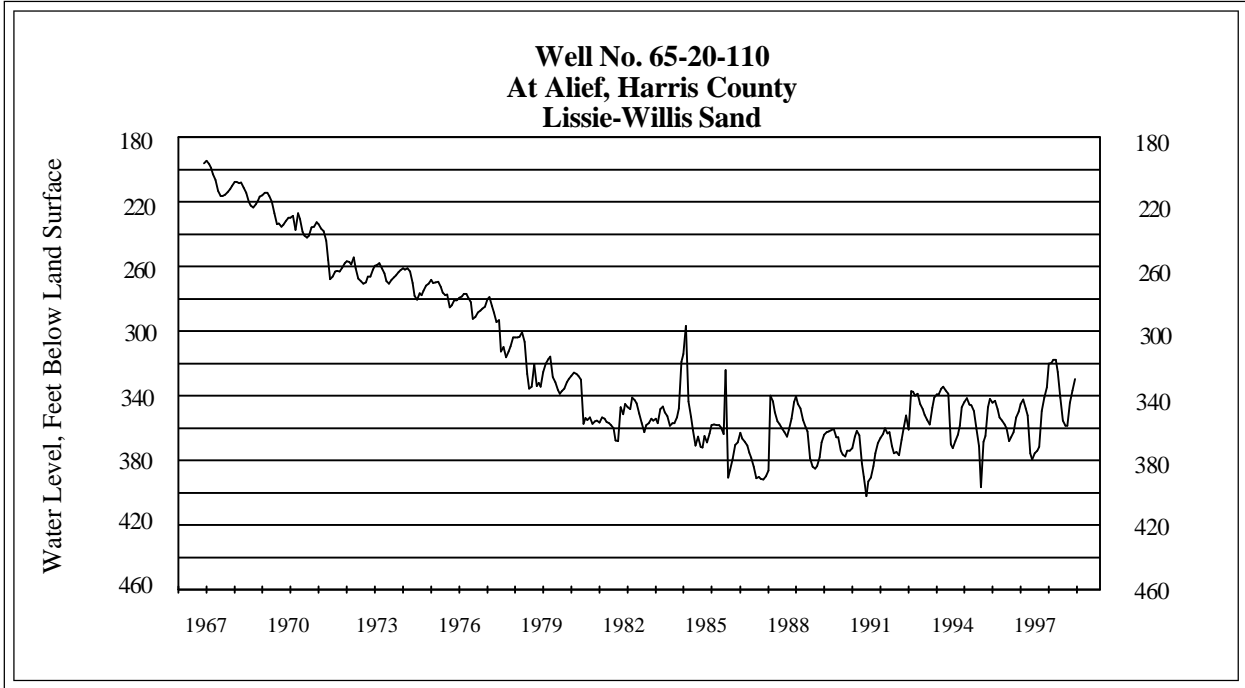
The January water-level measurement in this Paluxy aquifer well, elevation 535 feet above sea level, was 457.36 feet below land surface. This measurement was 0.12 of a foot above last month's measurement, 0.41 of a foot above last year's measurement, and 63.97 feet below the initial measurement recorded in 1953.



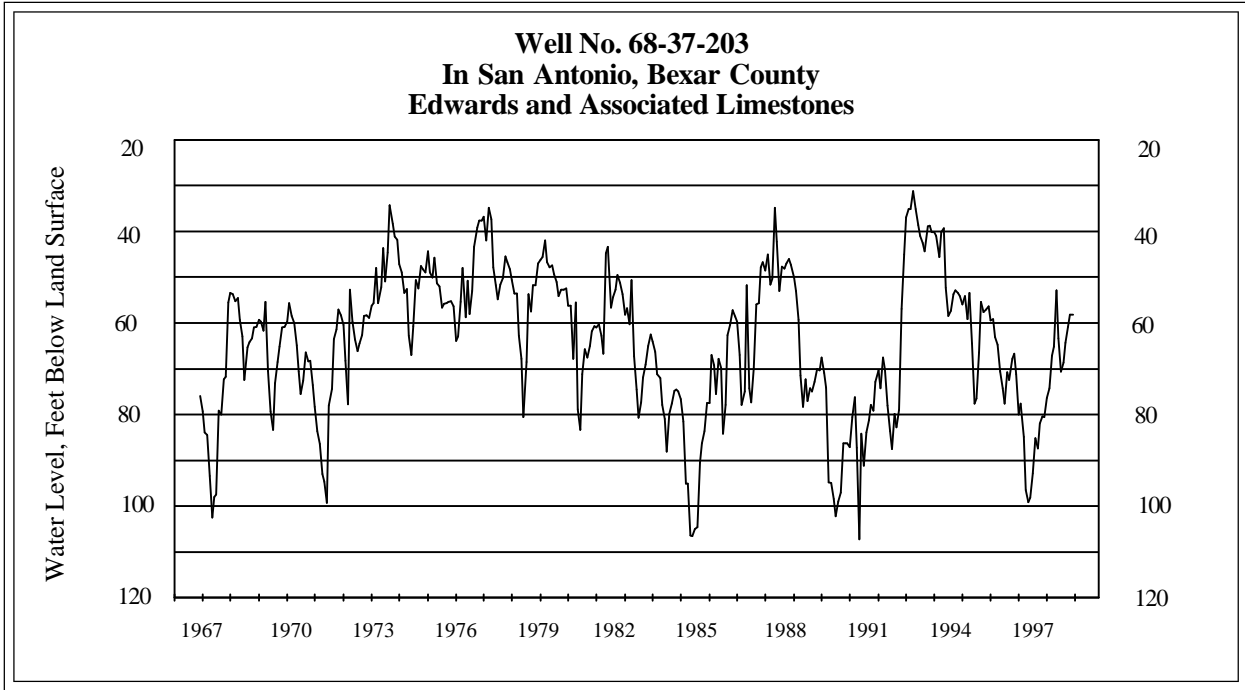
Current water-level measurements are unavailable from this Hosston Formation well due to cave-in problems. The well is scheduled to be repaired in 1998.



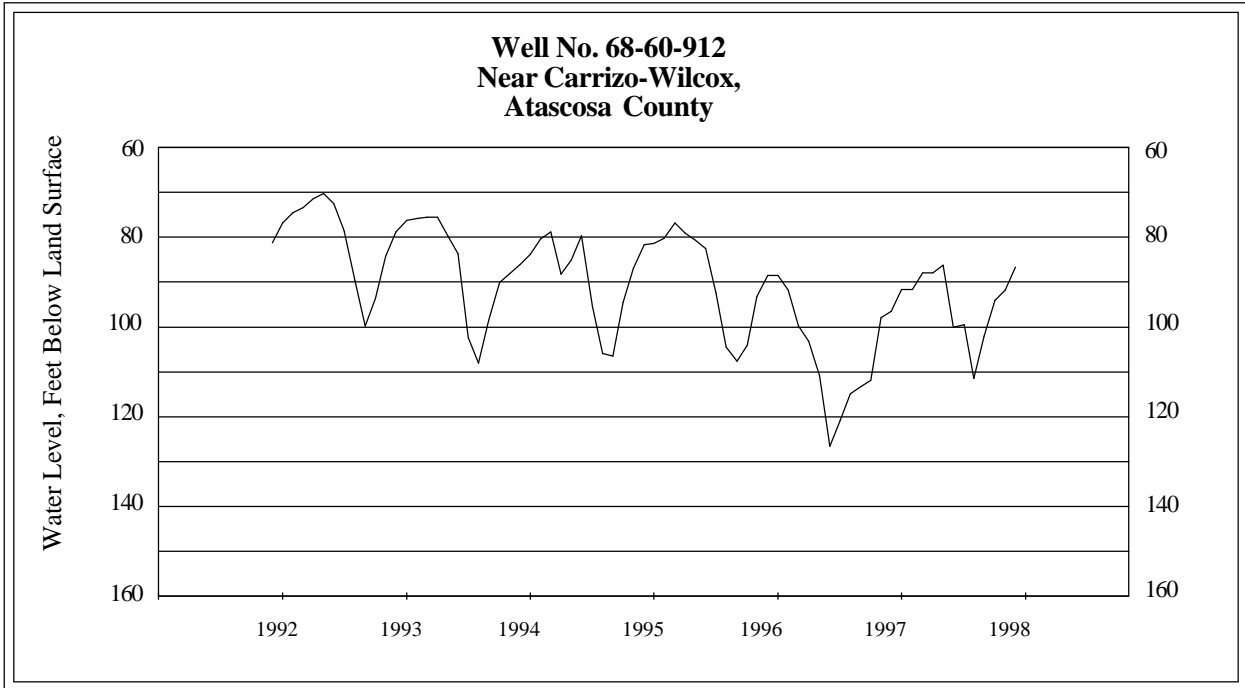
The January water-level measurement in this Bolson Deposits aquifer well, elevation 3882 feet above sea level, was 280.00 feet below land surface. This was 0.53 of a foot above last month's measurement, 3.07 feet below last year's measurement, and 48.10 feet below the initial measurement recorded in 1964.



The January water-level measurement in this Lissie Willis Sand aquifer well, elevation 83 feet above sea level, was 329.46 feet below land surface. This was 14.86 feet above November's measurement, 5.14 feet above last year's measurement, and 293.46 feet below the initial measurement recorded in 1939.



The January water-level measurement in this Edwards aquifer well, elevation 731 feet above sea level, was 58.20 feet below land surface. This was the same as last month's measurement, 22.40 feet above last year's measurement, and 1.42 feet above the initial measurement recorded in 1962.



The January water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 86.65 feet below land surface. This was 5.11 feet above last month's measurement, 9.85 feet above last year's measurement, and 5.40 feet below the initial measurement recorded in 1992.

