

Texas Water Development Board

WATER Conditions

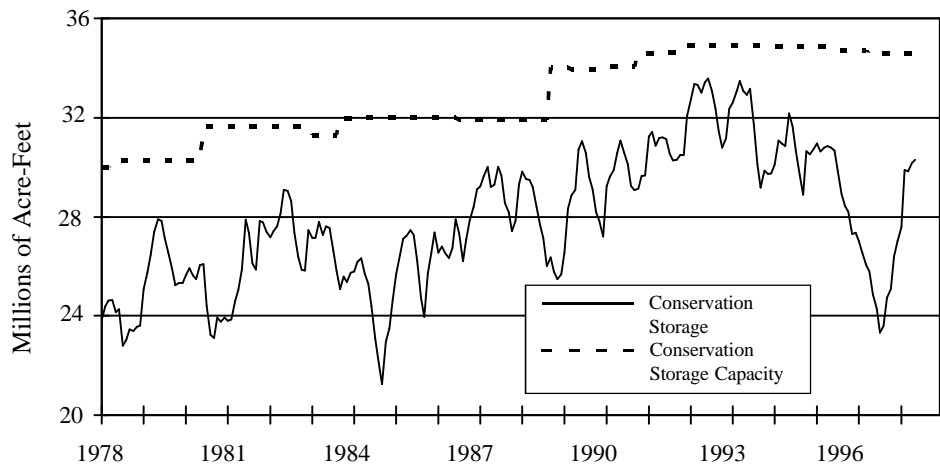
RESERVOIR STORAGE

June 1997

Near the end of May, the 77 reservoirs monitored for this report held 30,286,000 acre-feet in conservation storage. This was 88 percent of the conservation storage capacity of the State's major reservoirs. Compared to last month, storage has increased 117,440 acre-feet. Compared to this month last year, storage has increased 5,422,390 acre-feet.

Of the monitored reservoirs, 46 held 100 percent or more of their conservation storage capacities near the end of May. Lakes Fort Phantom Hill, Sulphur Springs, Tawakoni, Bridgeport, Eagle Mountain, Ray Hubbard, Graham, Palo Pinto, Granbury, Cleburne, Limestone, Brownwood, Cypress Springs, Sandlin, Fork, Toledo Bend, Palestine, Tyler, Cedar, Livingston, Coletto Creek, and Houston 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: Texoma, 215,900; Mayse, 64,600; Cooper, 7,490; Benbrook, 1,640; Pool, 590; Roberts, 42,890; Lewisville, 41,370; Grapevine, 8,320; Lavon, 9,060; Richland-Chambers, 53,810; Navarro, 820; Whitney, 18,050; Waco, 13,490; Proctor, 26,240; Belton, 102,020; Stillhouse, 57,490; Georgetown, 1,040; Granger, 8,390; Patman, 426,230; Lake O' the Pines, 80,240; Rayburn, 61,070; Somerville, 2,070; Travis, 28,700; and Canyon, 14,290.

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.

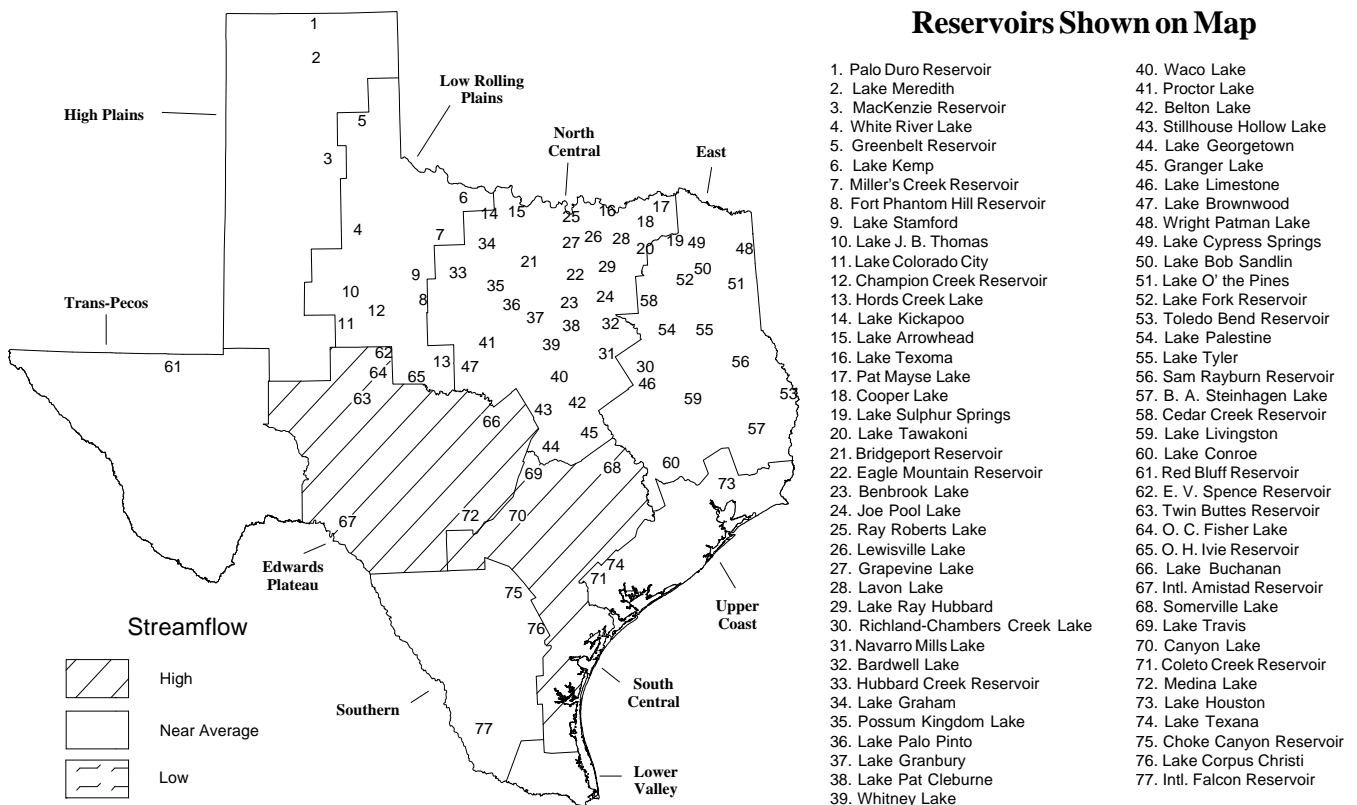
STREAMFLOW

Streamflow conditions across Texas ranged from near-normal to above-normal during the month of May. A couple of periods of heavy rainfall occurred during the month over all climatic divisions, but runoff was lower than April. 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 Rockland. Streamflow for May was near-normal, averaging 4,223 cubic feet per second (cfs). The monthly average flow rate, when compared to the 1961-90 reference period, was 157 percent of the reference period median and 1,735 cfs below the above-normal level for this location. For North-central Texas, the index station is located on the North Bosque River near Clifton. Streamflow past the gage

returned to near-normal levels for the first time in eight months, averaging 729 cfs, or 412 percent of the monthly reference period median. This was 164 cfs below the station's above-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 averaged 6.85 cfs during the month, or 107 percent of the reference period median. This value was near-normal, 15.75 cfs below the station's above-normal May flow level. The index station for South-central Texas is located on the Guadalupe River near Spring Branch. Flow during the month at the station was above-normal, averaging 1,240 cfs past the gage. This was 342 percent of the month's reference period median flow rate and was 407 cfs above the near-normal streamflow level.

STREAMFLOW CONDITIONS FOR MAY COMPARED WITH PAST RECORD



CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage in Acre-Feet and as Percent of Conservation Storage Capacity					
			Late May 1997		Late April 1997		Late May 1996	
HIGH PLAINS								
Palo Duro Reservoir	1	60,900	12,750	21	14,170	23	1,940	3
Lake Meredith (Texas)	2	500,000	371,710	74	368,210	74	270,350	54
Lake Meredith (Texas & Oklahoma)	(2)	(779,560)	(371,710)	(48)	(368,210)	(47)	(270,350)	(35)
Mackenzie Reservoir	3	46,250	8,950	19	8,950	19	7,000	15
White River Lake	4	31,850	14,270	45	12,380	39	15,230	48
TOTAL		639,000	407,680	64	403,710	63	294,520	46
LOW ROLLING PLAINS								
Greenbelt Reservoir	5	58,200	29,850	51	29,200	50	19,970	34
Lake Kemp	6	319,600	268,800	84	264,500	83	200,320	63
Miller's Creek Reservoir	7	27,890	13,710	49	12,740	46	11,090	40
Fort Phantom Hill Reservoir	8	70,030	70,030	100	66,480	95	44,140	63
Lake Stamford	9	52,700	26,080	49	22,000	42	26,630	51
Lake J. B. Thomas	10	202,300	13,740	7	12,610	6	10,250	5
Lake Colorado City	11	30,800	18,100	59	18,500	60	17,980	58
Champion Creek Reservoir	12	41,600	22,100	53	21,970	53	27,380	66
Hords Creek Lake	13	8,600	8,100	94	7,850	91	6,400	74
TOTAL		811,720	470,510	58	455,850	56	364,160	45
NORTH CENTRAL								
Lake Kickapoo	14	106,000	71,820	68	68,240	64	75,980	72
Lake Arrowhead	15	262,100	238,910	91	213,040	81	207,170	79
Lake Texoma	16	2,722,300	2,722,300	100	2,722,300	100	2,564,600	94
Pat Mayse Lake	17	124,500	124,500	100	124,500	100	103,500	83
Cooper Lake	18	273,000	273,000	100	273,000	100	260,340	95
Lake Sulphur Springs	19	17,710	17,710	100	17,710	100	11,400	64
Lake Tawakoni	20	936,200	936,200	100	936,200	100	759,900	81
Bridgeport Reservoir	21	374,830	374,830	100	374,830	100	309,500	83
Eagle Mountain Reservoir	22	178,380	178,380	100	178,380	100	151,060	85
Benbrook Lake	23	88,200	88,200	100	88,200	100	86,520	98
Joe Pool Lake	24	175,800	175,800	100	175,800	100	149,470	85
Ray Roberts Lake	25	798,760	798,760	100	798,760	100	740,080	93
Lewisville Lake	26	555,000	555,000	100	555,000	100	364,550	66
Grapevine Lake	27	187,700	187,700	100	187,700	100	140,280	75
Lavon Lake	28	443,800	443,800	100	443,800	100	300,810	68
Lake Ray Hubbard	29	490,000	490,000	100	488,790	99	394,500	81
Richland-Chambers Creek Lake	30	1,103,820	1,103,820	100	1,103,820	100	931,360	84
Navarro Mills Lake	31	55,810	55,810	100	55,810	100	42,520	76
Bardwell Lake	32	53,580	51,400	96	53,580	100	43,320	81
Hubbard Creek Reservoir	33	317,800	314,000	99	317,000	99	232,200	73
Lake Graham	34	45,000	45,000	100	45,000	100	44,490	99
Possum Kingdom Lake	35	551,820	545,410	99	537,240	97	456,220	83
Lake Palo Pinto	36	42,200	42,200	100	42,200	100	32,580	77
Lake Granbury	37	135,680	135,680	100	130,170	96	126,860	93
Lake Pat Cleburne	38	25,300	25,300	100	25,300	100	18,600	74
Whitney Lake	39	622,800	622,800	100	622,800	100	485,640	78
Waco Lake	40	144,550	144,550	100	144,550	100	127,030	88

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

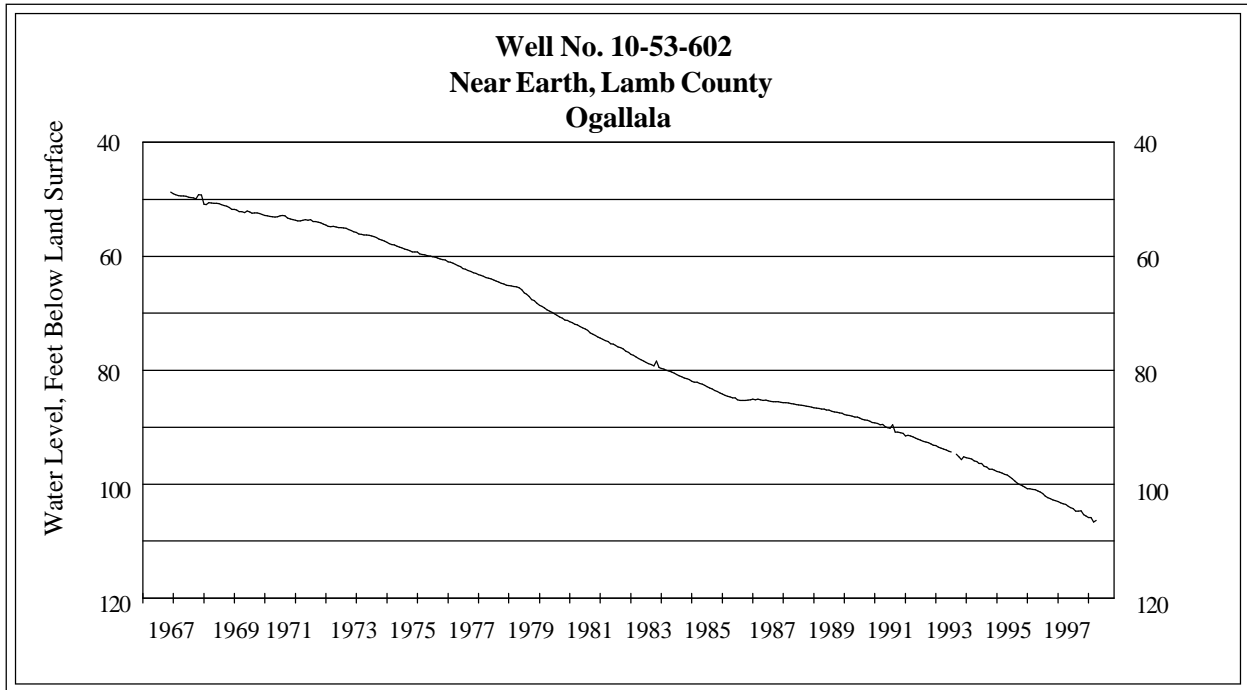
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage in Acre-Feet and as Percent of Conservation Storage Capacity					
			Late May 1997		Late April 1997		Late May 1996	
NORTH CENTRAL (continued)								
Proctor Lake	41	55,590	55,590	100	55,590	100	53,520	96
Belton Lake	42	434,500	434,500	100	434,500	100	392,680	90
Stillhouse Hollow Lake	43	226,060	226,060	100	226,060	100	212,230	94
Lake Georgetown	44	37,010	37,010	100	37,010	100	19,910	54
Granger Lake	45	54,280	54,280	100	54,280	100	52,640	97
Lake Limestone	46	215,750	215,750	100	215,750	100	177,770	82
Lake Brownwood	47	143,400	143,400	100	143,400	100	109,100	76
TOTAL		11,999,230	11,929,470	99	11,890,310	99	10,178,330	85
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	65,320	98
Lake Bob Sandlin	50	202,300	202,300	100	202,300	100	170,050	84
Lake O' the Pines	51	252,000	252,000	100	252,000	100	245,860	98
Lake Fork Reservoir	52	635,200	635,200	100	635,200	100	572,180	90
Toledo Bend Reservoir	53	4,472,900	4,472,900	100	4,472,900	100	3,435,000	77
Lake Palestine	54	411,300	411,300	100	411,300	100	341,600	83
Lake Tyler	55	73,700	73,700	100	73,700	100	66,770	91
Sam Rayburn Reservoir	56	2,876,300	2,876,300	100	2,876,300	100	1,738,620	60
B. A. Steinhagen Lake	57	94,200	86,930	92	85,270	91	78,010	83
Cedar Creek Reservoir	58	637,050	637,050	100	637,050	100	509,080	80
Lake Livingston	59	1,750,000	1,750,000	100	1,750,000	100	1,735,000	99
Lake Conroe	60	429,900	414,970	97	416,970	97	420,770	98
TOTAL		12,044,350	12,022,150	99	12,022,490	99	9,520,960	79
TRANS-PECOS								
Red Bluff Reservoir	61	307,000	64,960	21	73,050	24	66,720	22
TOTAL		307,000	64,960	21	73,050	24	66,720	22
EDWARDS PLATEAU								
E. V. Spence Reservoir	62	484,800	124,300	26	124,000	26	116,800	24
Twin Buttes Reservoir	63	177,800	71,280	40	71,940	40	29,750	17
O. C. Fisher Lake	64	119,200	19,720	17	20,020	17	15,470	13
O. H. Ivie Reservoir	65	554,340	501,860	91	490,860	89	494,860	89
Lake Buchanan	66	896,980	850,760	95	871,454	97	716,750	80
Amistad Reservoir (Texas)	67	1,771,030	921,780	52	906,370	51	856,110	48
Amistad Reservoir (Texas & Mexico)	(67)	(3,151,300)	(1,420,360)	(45)	(1,333,620)	(42)	(1,260,650)	(40)
TOTAL		4,004,150	2,489,700	62	2,484,640	62	2,229,740	56
SOUTH CENTRAL								
Somerville Lake	68	155,060	155,060	100	155,060	100	131,830	85
Lake Travis	69	1,144,100	1,144,100	100	1,144,100	100	784,810	69
Canyon Lake	70	385,600	385,600	100	385,600	100	355,740	92
Coletto Creek Reservoir	71	35,060	35,060	100	35,060	100	23,070	66
Medina Lake	72	254,000	123,400	49	109,900	43	121,600	48
TOTAL		1,973,820	1,843,220	93	1,829,720	93	1,417,050	72

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

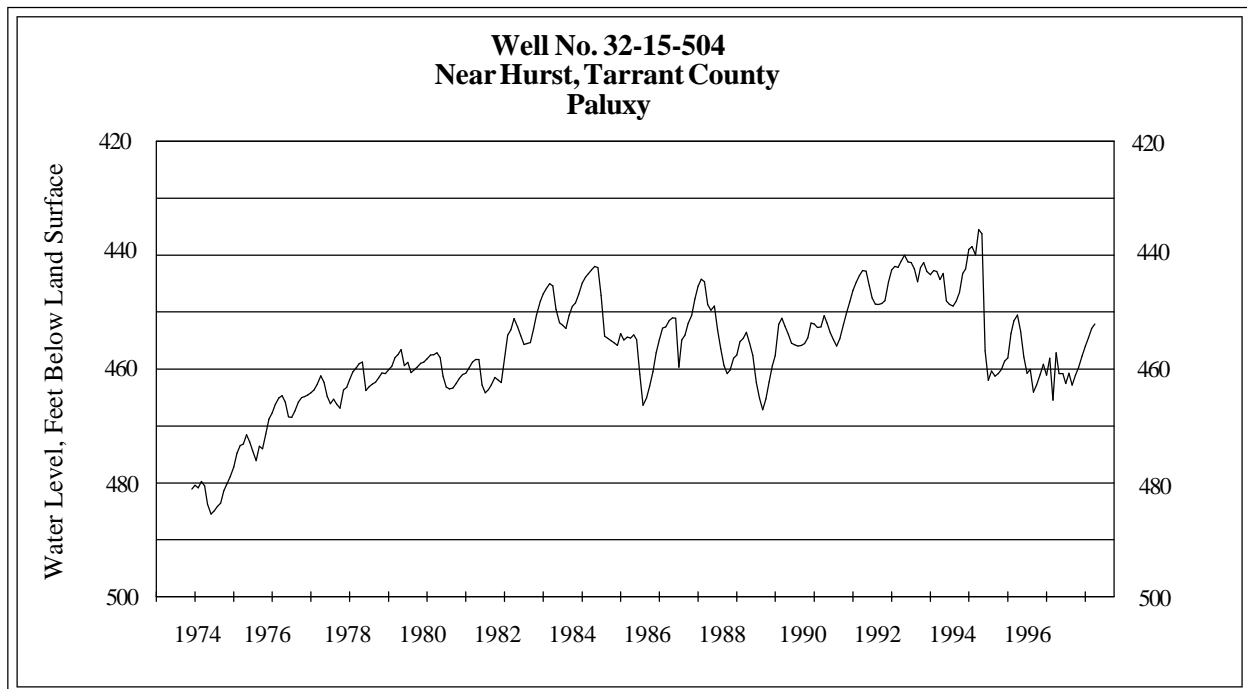
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage in Acre-Feet and as Percent of Conservation Storage Capacity					
			Late May 1997	Late April 1997	Late May 1996			
UPPER COAST								
Lake Houston	73	128,860	128,860	100	128,860	100	128,860	100
Lake Texana	74	157,900	157,540	99	157,810	99	133,460	85
TOTAL		286,760	286,400	99	286,670	99	262,320	91
SOUTHERN								
Choke Canyon Reservoir	75	695,260	174,210	25	169,310	24	212,000	30
Lake Corpus Christi	76	241,240	135,600	56	128,000	53	90,810	38
Falcon Reservoir (Texas)	77	1,555,120	462,100	30	424,810	27	227,000	15
Falcon Reservoir (Texas & Mexico)	(77)	(2,653,290)	(782,340)	(29)	(563,440)	(21)	(328,340)	(12)
TOTAL		2,491,620	771,910	31	722,120	29	529,810	21
STATE TOTAL		34,557,650	30,286,000	88	30,168,560	87	24,863,610	72

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 74 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 parenthesis 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 Texas (United States' share) and Mexico and are not included in State total.

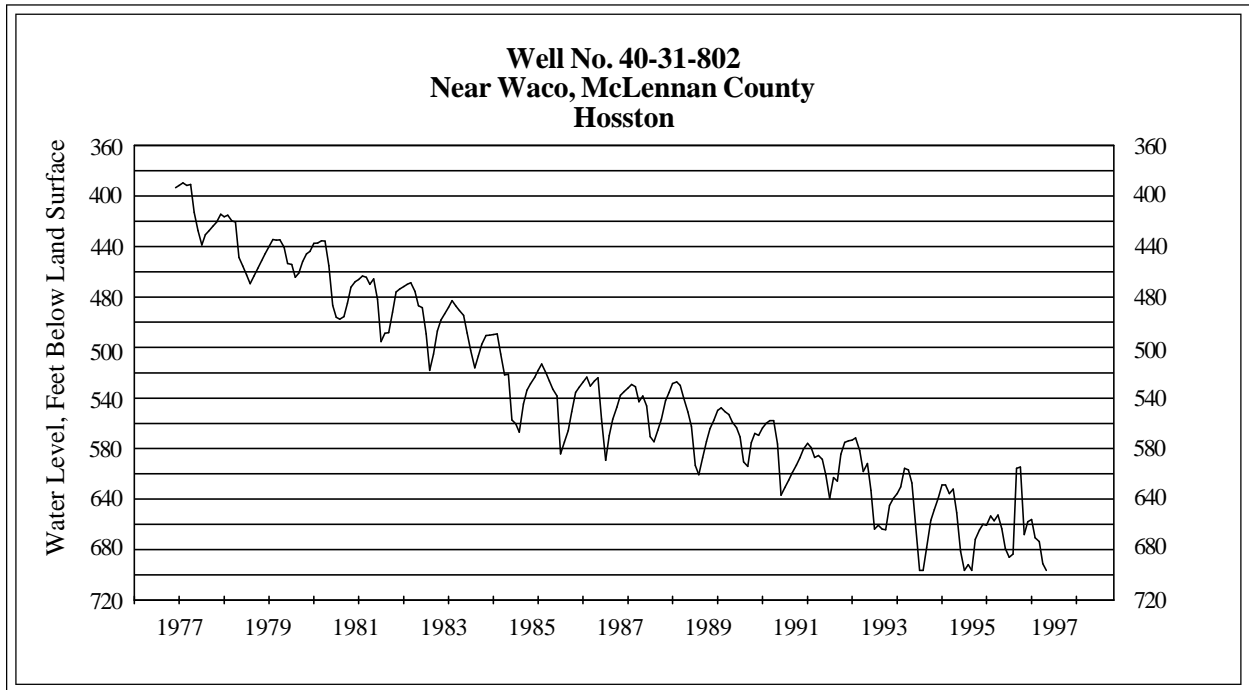
GROUND WATER LEVELS IN OBSERVATION WELLS



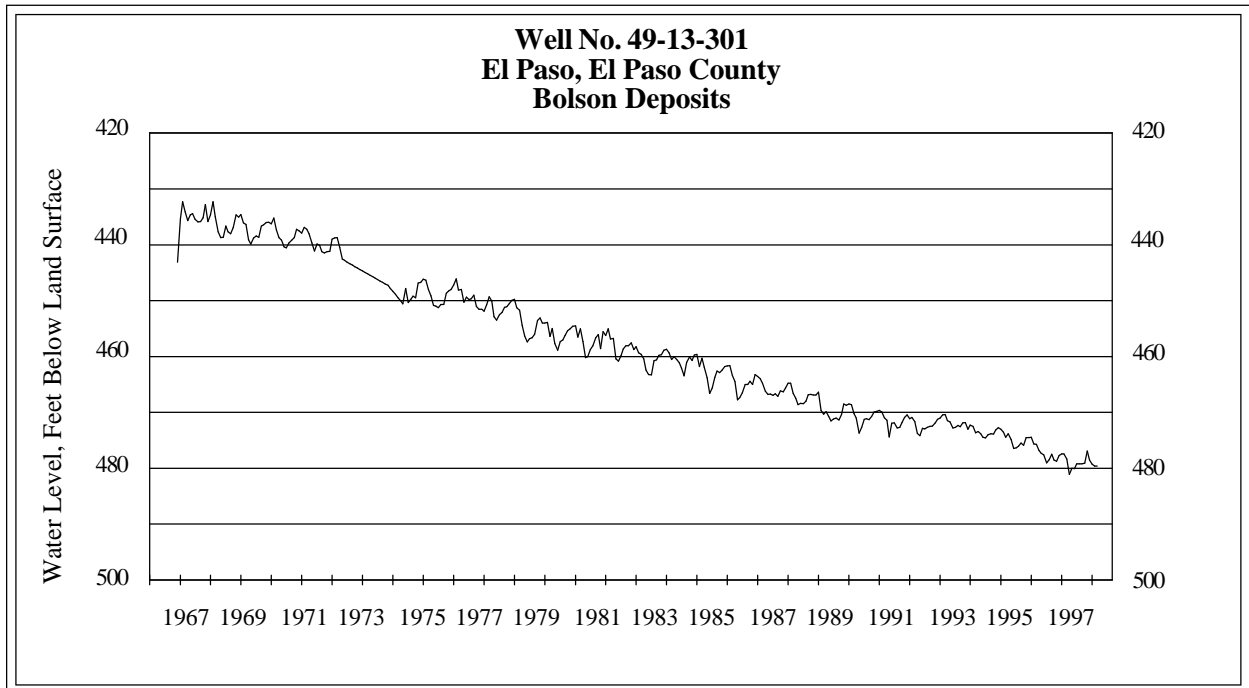
The May water-level measurement in this Ogallala aquifer well, elevation 3667 feet above sea level, was 106.38 feet below land surface. This was 0.22 of a foot above last month's measurement, 2.77 feet below last year's measurement, and 78.23 feet below the initial measurement recorded in 1950.



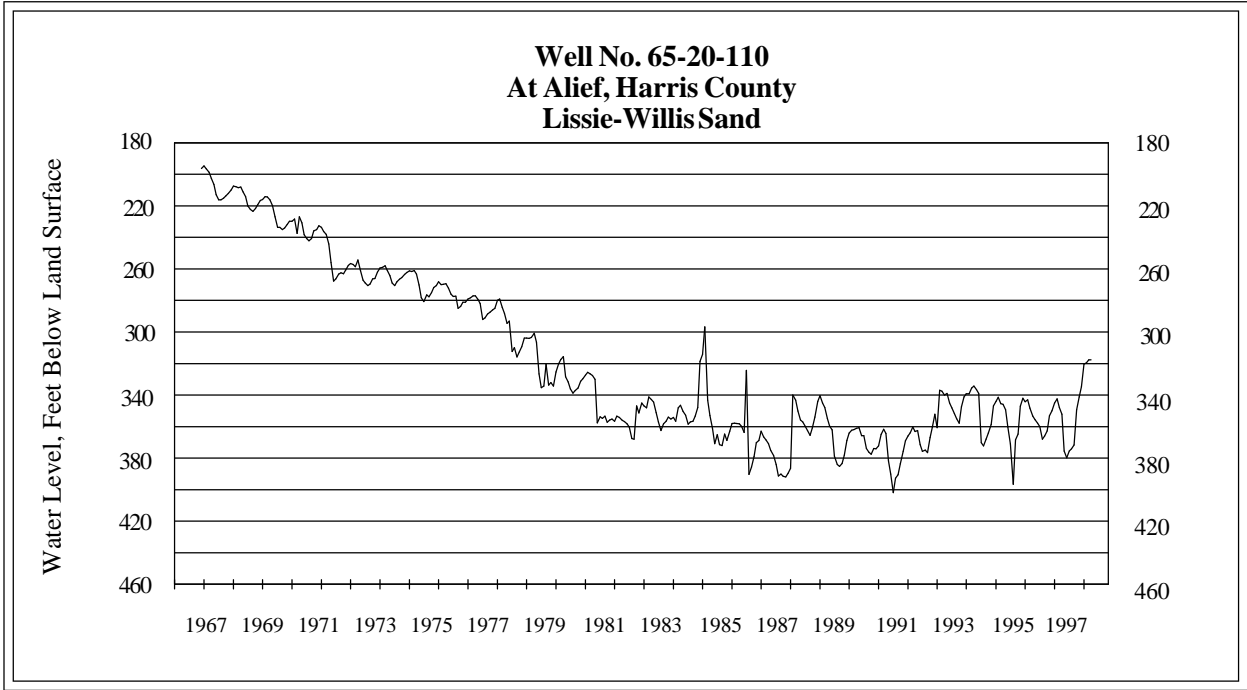
The May water-level measurement in this Paluxy aquifer well, elevation 535 feet above sea level, was 452.09 feet below land surface. The May measurement was .82 feet above last month's measurement, 5.08 feet above last year's measurement, and 58.70 feet below the initial measurement recorded in 1953.



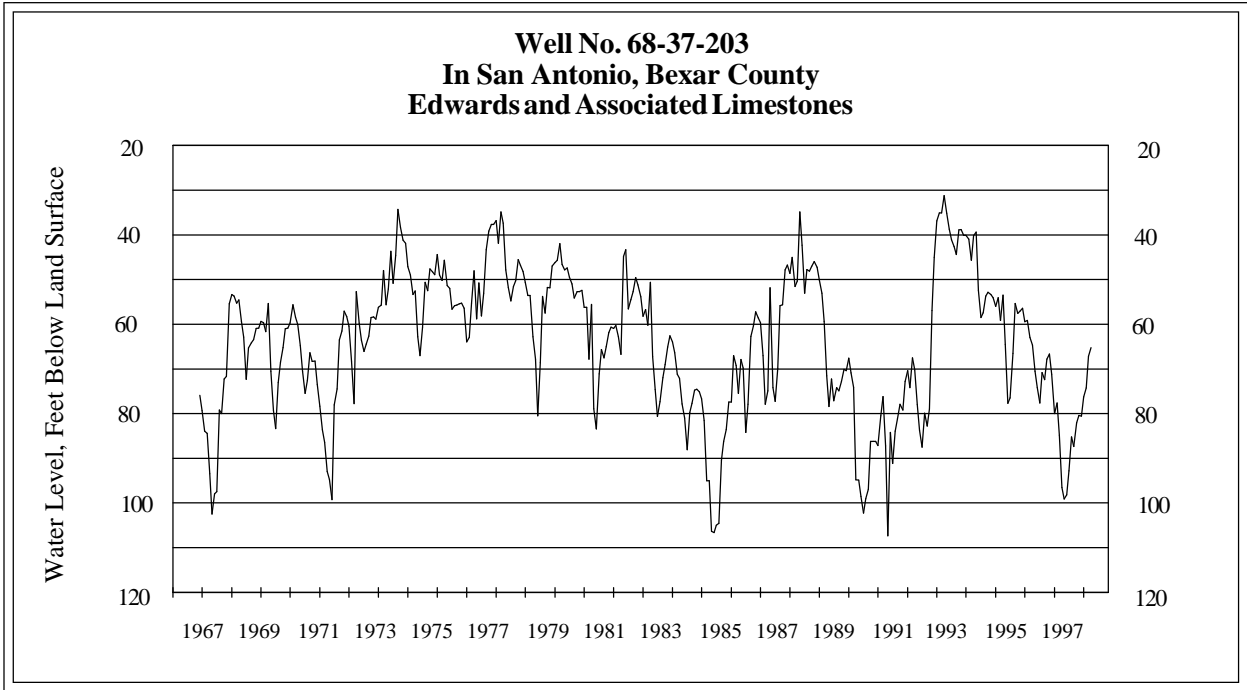
The May water-level measurement in this Hosston Formation aquifer well, elevation 593 feet above sea level, was not available at this time.



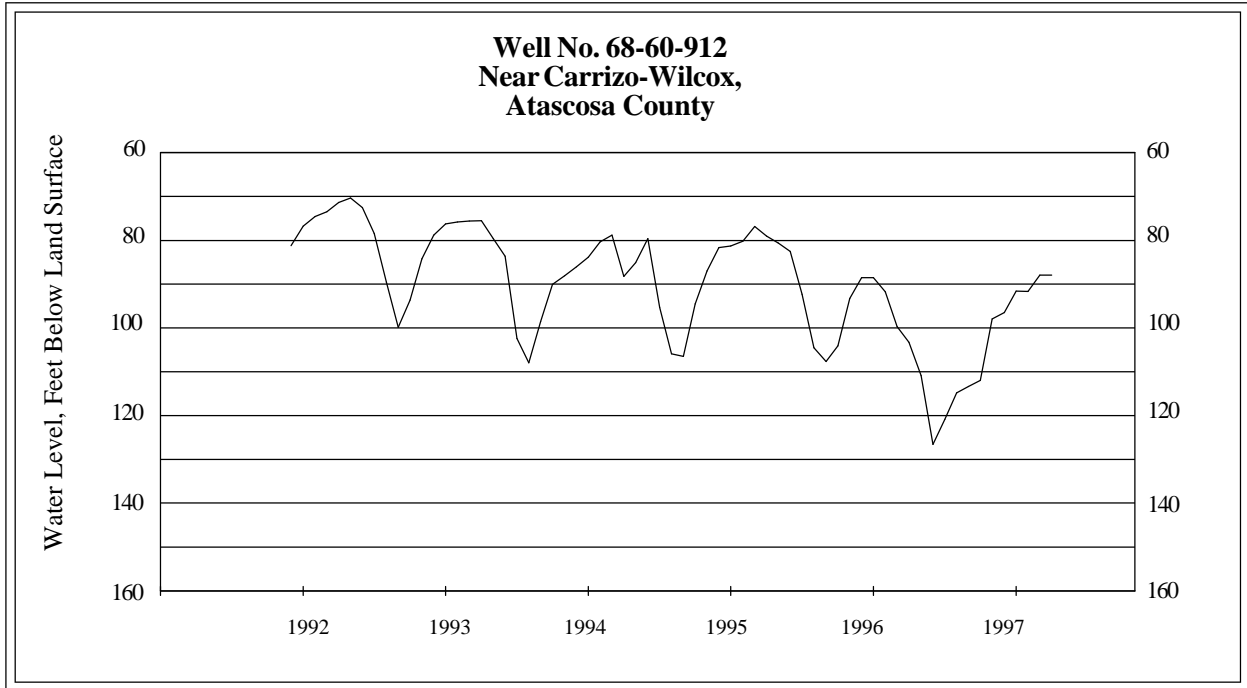
The May water-level measurement in this Bolson Deposits aquifer well, elevation 3,882 feet above sea level, was 279.66 feet below land surface. This was 0.04 feet below last month's measurement, 1.28 feet below last year's measurement, and 47.76 feet below the initial measurement recorded in 1964.



The May water-level measurement in this Lissie Willis Sand aquifer well, elevation 83 feet above sea level, was 317.80 feet below land surface. This was 0.05 feet below last month's measurement, 34.24 feet above last year's measurement, and 281.80 feet below the initial measurement recorded in 1939.



The May water-level measurement in this Edwards aquifer well, elevation 731 feet above sea level, was 65.20 feet below land surface. This was 2.00 feet above last month's measurement, 31.30 feet above last year's measurement, and 5.58 feet below the initial measurement recorded in 1962.



The May water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 87.96 feet below land surface. This was 0.05 feet below last month's measurement, 15.31 feet above last year's measurement, and 6.71 feet below the initial measurement recorded in 1992.

