

# Texas Water Development Board

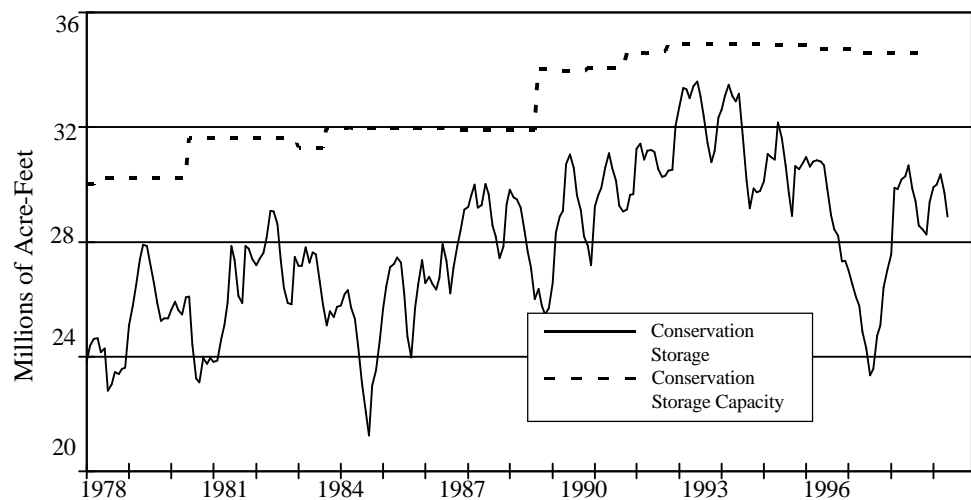
# WATER Conditions

## RESERVOIR STORAGE

Near the end of May, the 77 reservoirs monitored for this report held 289,875,540 acre-feet in conservation storage. This was 84 percent of the conservation storage capacity of the State's major reservoirs. Compared to last month, storage has decreased 852,920 acre-feet. Compared to this month last year, storage has decreased 1,410,460 acre-feet.

Of the monitored reservoirs, 12 held 100 percent or more of their conservation storage capacities near the end of May. Lakes Graham, Granbury, Brownwood, Tyler, Cedar 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: Lewisville, 13,160; Proctor, 2,470; Belton, 580; Stillhouse, 4,860; Granger, 1,610; and Wright Patman, 67,700.

### 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

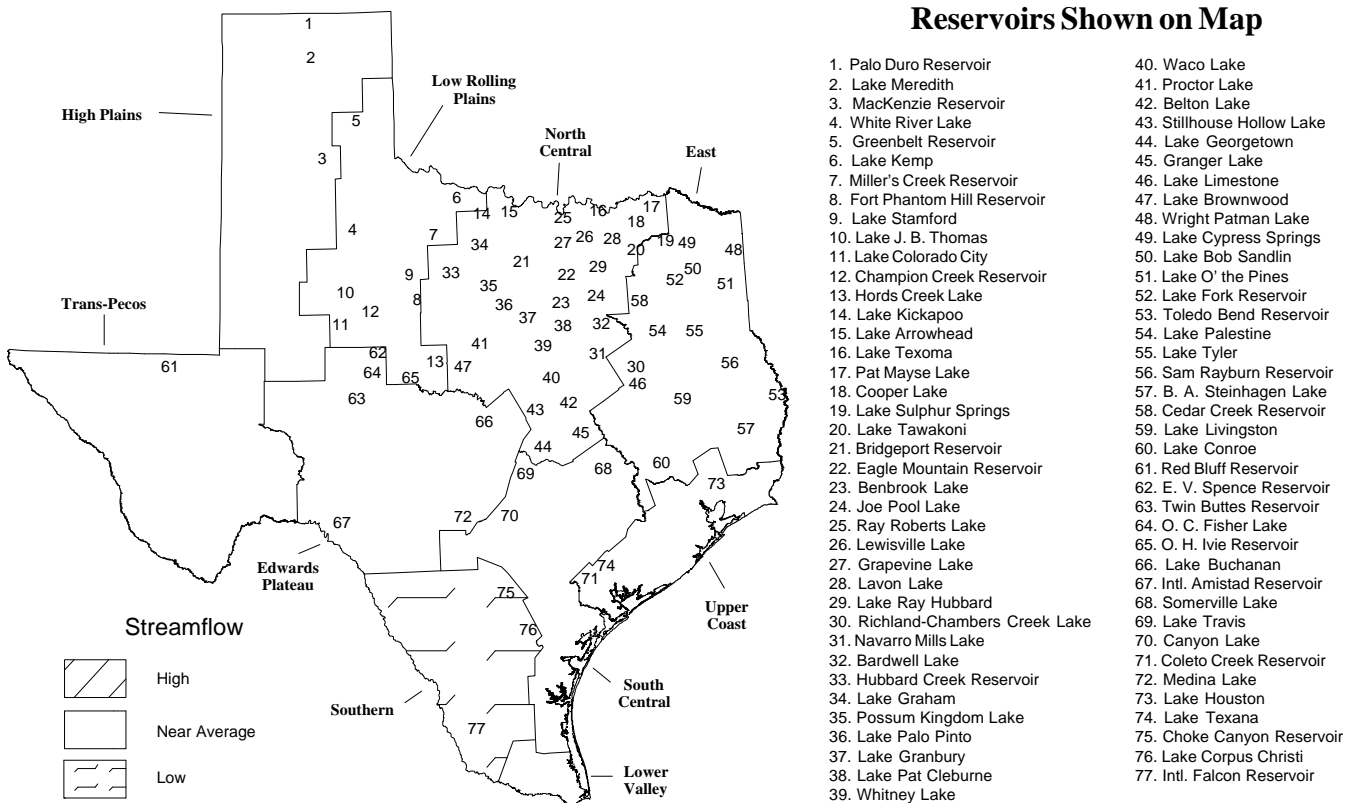
Streamflow conditions across Texas ranged from below-normal to normal during the month of May. For most of the month, no rainfall fell across the state. The thunderstorms that materialized late in the month did little to keep May from being one of the driest on record. Houston had it's least amount of rainfall since 1932. The following is a summary of the measured flows throughout the State.

The High Plains, Low Rolling Plains, North Central, East, Trans Pecos, Edwards Plateau, South Central, and Upper Coast climatic regions reported normal streamflow conditions during the month. The 27 gages in these regions reported a monthly mean flow for May that was exceeded 52.9% of the time. The Edwards Plateau's four gages reported a monthly flow average

that was exceeded 38.13 % of the time. This was the wettest region in the state during the month. The East Texas climatic region was the driest of the group as their five gages reported a monthly flow average that was exceeded 73.76% of the time. The gage at the Salt Fork Red River near Wellington in the Low Rolling Plains climatic region reported a flow level that is exceeded only 2.8 % of the time.

The Southern climatic region reported below normal flow conditions. The three gages reporting during this period, reported an average flow that was exceeded 91.9% of the time in May. The gage at the Nueces River near Tilden reported no flow for the month, a condition that is exceeded 99.9% of the time.

## STREAMFLOW CONDITIONS FOR MAY COMPARED WITH PAST RECORD



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					
			Map:	Late May 1998	Late Apr 1998	Late May 1997		

**HIGH PLAINS**

Palo Duro Reservoir	1	60,900	5,550	9	6,070	10	12,750	21
Lake Meredith (Texas)	2	500,000	373,790	75	383,770	77	371,710	74
Lake Meredith (Texas and Oklahoma)	(2)	(779,560)	(373,790)	(48)	(383,770)	(49)	(371,710)	(48)
MacKenzie Reservoir	3	46,250	8,860	19	9,100	20	8,950	19
White River Lake	4	31,850	11,240	35	11,900	37	14,270	45
TOTAL		639,000	399,440	63	410,840	64	407,680	64

**LOW ROLLING PLAINS**

Greenbelt Reservoir	5	58,200	28,650	49	29,020	50	29,850	51
Lake Kemp	6	319,600	255,080	80	268,480	84	268,800	84
Miller's Creek Reservoir	7	27,890	11,260	40	11,940	43	13,710	49
Fort Phantom Hill Reservoir	8	70,030	49,750	71	55,160	79	70,030	100
Lake Stamford	9	52,700	31,960	61	30,710	58	26,080	49
Lake J. B. Thomas	10	202,300	12,780	6	14,060	7	13,740	7
Lake Colorado City	11	30,800	17,260	56	17,970	58	18,100	59
Champion Creek Reservoir	12	41,600	19,040	46	19,740	47	22,100	53
Hords Creek Lake	13	8,600	7,050	82	6,250	73	8,100	94
TOTAL		811,720	432,830	53	453,330	56	470,510	58

**NORTH CENTRAL**

Lake Kickapoo	14	106,000	66,500	63	68,420	65	71,820	68
Lake Arrowhead	15	262,100	226,230	86	231,800	88	238,910	91
Lake Texoma	16	2,722,300	2,664,200	98	2,635,800	97	2,722,300	100
Pat Mayse Lake	17	124,500	118,600	95	122,300	98	124,500	100
Cooper Lake	18	273,000	270,040	99	273,000	100	273,000	100
Lake Sulphur Springs	19	17,710	17,100	97	17,710	100	17,710	100
Lake Tawakoni	20	936,200	920,800	98	935,900	99	936,200	100
Bridgeport Reservoir	21	374,830	372,000	99	372,700	99	374,830	100
Eagle Mountain Reservoir	22	178,380	176,960	99	178,380	100	178,380	100
Benbrook Lake	23	88,200	86,830	98	86,170	98	88,200	100
Joe Pool Lake	24	175,800	170,020	97	174,380	99	175,800	100
Ray Roberts Lake	25	798,760	787,670	99	798,760	100	798,760	100
Lewisville Lake	26	555,000	555,000	100	555,000	100	555,000	100
Grapevine Lake	27	187,700	179,700	96	182,830	97	187,700	100
Lavon Lake	28	443,800	419,310	94	438,510	99	443,800	100
Lake Ray Hubbard	29	490,000	478,800	98	486,300	99	490,000	100
Richland-Chambers Creek Lake	30	1,103,820	1,072,120	97	1,095,220	99	1,103,820	100
Navarro Mills Lake	31	55,810	53,510	96	55,810	100	55,810	100
Bardwell Lake	32	53,580	50,470	94	51,540	96	51,400	96
Hubbard Creek Reservoir	33	317,800	301,400	95	308,300	97	314,000	99
Lake Graham	34	45,000	45,000	100	45,000	100	45,000	100
Possum Kingdom Lake	35	551,820	509,850	92	536,000	97	545,410	99
Lake Palo Pinto	36	42,200	38,820	92	40,440	96	42,200	100
Lake Granbury	37	135,680	135,680	100	135,680	100	135,680	100
Lake Pat Cleburne	38	25,300	24,450	97	25,300	100	25,300	100
Whitney Lake	39	622,800	613,400	98	620,650	99	622,800	100
Waco Lake	40	144,550	138,280	96	142,710	99	144,550	100

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

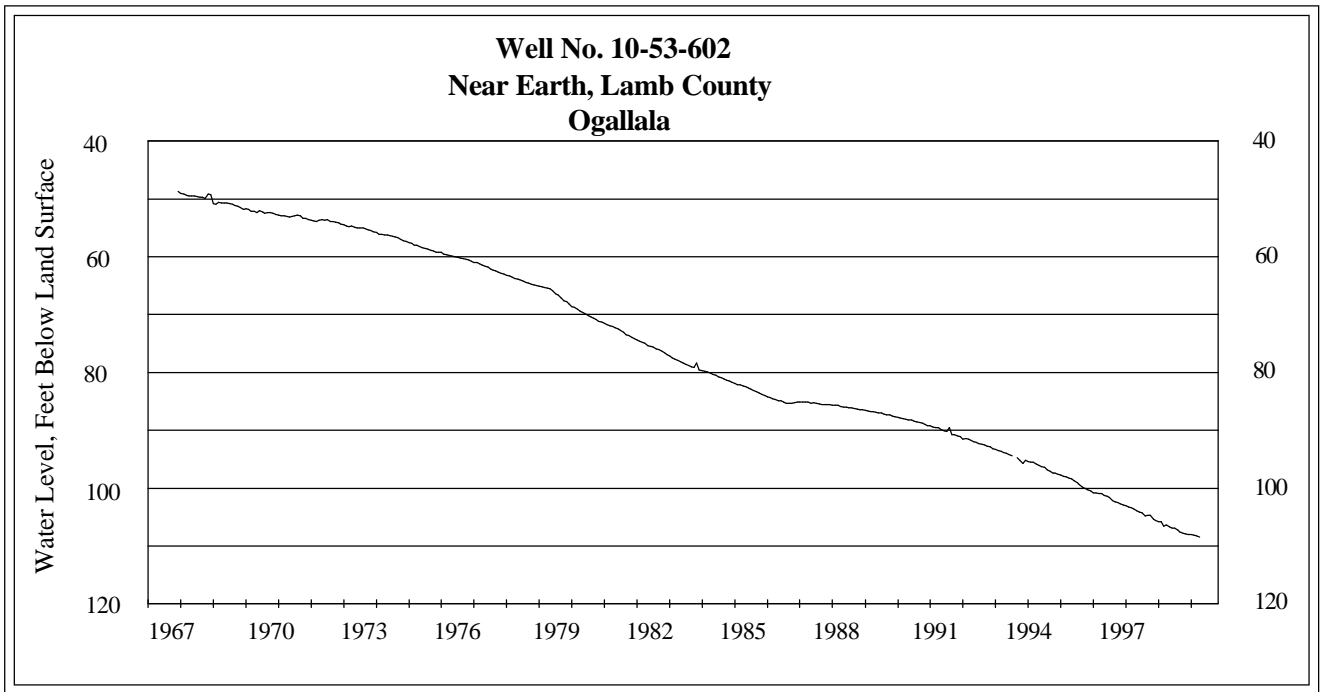
Name of Lake or Reservoir	No.:	Conservation:		Conservation Storage in Acre-Feet and as Percent of Conservation Storage Capacity					
		Storage Capacity	Map:	(acre-feet)	Late May 1998	Late Apr 1998	Late May 1997		
<b>NORTH CENTRAL (continued)</b>									
Proctor Lake	41	55,590		55,590	100	55,590	100	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	226,060	100	226,060	100
Lake Georgetown	44	37,010		36,800	99	37,010	100	37,010	100
Granger Lake	45	54,280		54,280	100	54,280	100	54,280	100
Lake Limestone	46	215,750		205,020	95	215,750	100	215,750	100
Lake Brownwood	47	143,400		143,400	100	141,300	99	143,400	100
TOTAL		11,999,230		11,648,390	97	11,779,100	98	11,929,470	99
<b>EAST</b>									
Wright Patman Lake	48	142,700		142,700	100	142,700	100	142,700	100
Lake Cypress Springs	49	66,800		65,960	99	66,800	100	66,800	100
Lake Bob Sandlin	50	202,300		189,510	94	202,300	100	202,300	100
Lake O' the Pines	51	252,000		250,680	99	252,000	100	252,000	100
Lake Fork Reservoir	52	635,200		615,830	97	621,290	98	635,200	100
Toledo Bend Reservoir	53	4,472,900		4,100,000	92	4,240,000	95	4,472,900	100
Lake Palestine	54	411,300		398,500	97	408,800	99	411,300	100
Lake Tyler	55	73,700		73,700	100	73,700	100	73,700	100
Sam Rayburn Reservoir	56	2,876,300		2,720,840	95	2,876,300	100	2,876,300	100
B. A. Steinhagen Lake	57	94,200		80,790	86	83,880	89	86,930	92
Cedar Creek Reservoir	58	637,050		637,050	100	637,050	100	637,050	100
Lake Livingston	59	1,750,000		1,730,000	99	1,750,000	100	1,750,000	100
Lake Conroe	60	429,900		406,870	95	413,970	96	414,970	97
TOTAL		12,044,350		11,412,430	95	11,768,790	98	12,022,150	99
<b>TRANS-PECOS</b>									
Red Bluff Reservoir	61	307,000		74,470	24	82,330	27	64,960	21
TOTAL		307,000		74,470	24	82,330	27	64,960	21
<b>EDWARDS PLATEAU</b>									
E. V. Spence Reservoir	62	484,800		96,440	20	99,230	20	124,300	26
Twin Buttes Reservoir	63	177,800		38,030	21	42,460	24	71,280	40
O. C. Fisher Lake	64	119,200		18,440	15	15,020	13	19,720	17
O. H. Ivie Reservoir	65	554,340		499,160	90	489,460	88	501,860	91
Lake Buchanan	66	896,980		847,420	94	847,880	95	850,760	95
Amistad Reservoir (Texas)	67	1,771,030		737,750	42	826,920	47	921,780	52
Amistad Reservoir (Texas and Mexico)	(67)	(3,151,300)		(997,980)	(32)	(1,321,460)	(42)	(1,420,360)	(45)
TOTAL		4,004,150		2,237,240	56	2,320,970	58	2,489,700	62
<b>SOUTH CENTRAL</b>									
Somerville Lake	68	155,060		150,000	97	153,700	99	155,060	100
Lake Travis	69	1,144,100		1,021,580	89	1,144,100	100	1,144,100	100
Canyon Lake	70	385,600		379,310	98	380,700	99	385,600	100
Coletto Creek Reservoir	71	35,060		31,740	91	33,500	96	35,060	100
Medina Lake	72	254,000		241,400	95	254,000	100	123,400	49
TOTAL		1,973,820		1,824,030	92	1,966,000	99	1,843,220	93

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

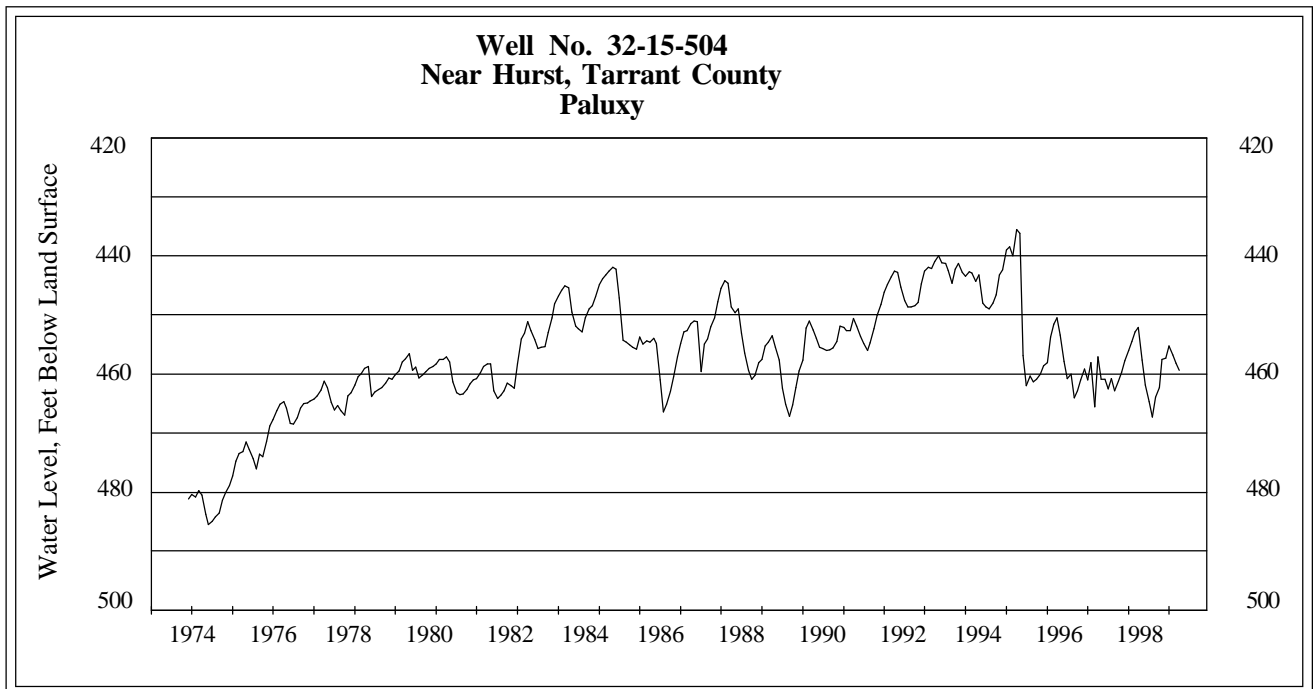
Name of Lake or Reservoir	No.:	Conservation: Storage Capacity (acre-feet)	Conservation Storage in Acre-Feet and as Percent of Conservation Storage Capacity					
			Late May 1998	Late Apr 1998	Late May 1997			
<b>UPPER COAST</b>								
Lake Houston	73	128,860	128,860	100	128,860	100	128,860	100
Lake Texana	74	157,900	147,950	94	149,300	95	157,540	99
TOTAL		286,760	276,810	97	278,160	97	286,400	99
<b>SOUTHERN</b>								
Choke Canyon Reservoir	75	695,260	260,570	37	268,030	39	174,210	25
Lake Corpus Christi	76	241,240	148,000	61	165,800	69	135,600	56
Falcon Reservoir (Texas)	77	1,555,120	161,330	10	235,110	15	462,100	30
Falcon Reservoir (Texas and Mexico)	(77)	(2,653,290)	(274,830)	(10)	(282,130)	(11)	(782,340)	(29)
TOTAL		2,491,620	569,900	23	668,940	27	771,910	31
STATE TOTAL		34,557,650	28,875,540	84	29,728,460	86	30,286,000	88

**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.

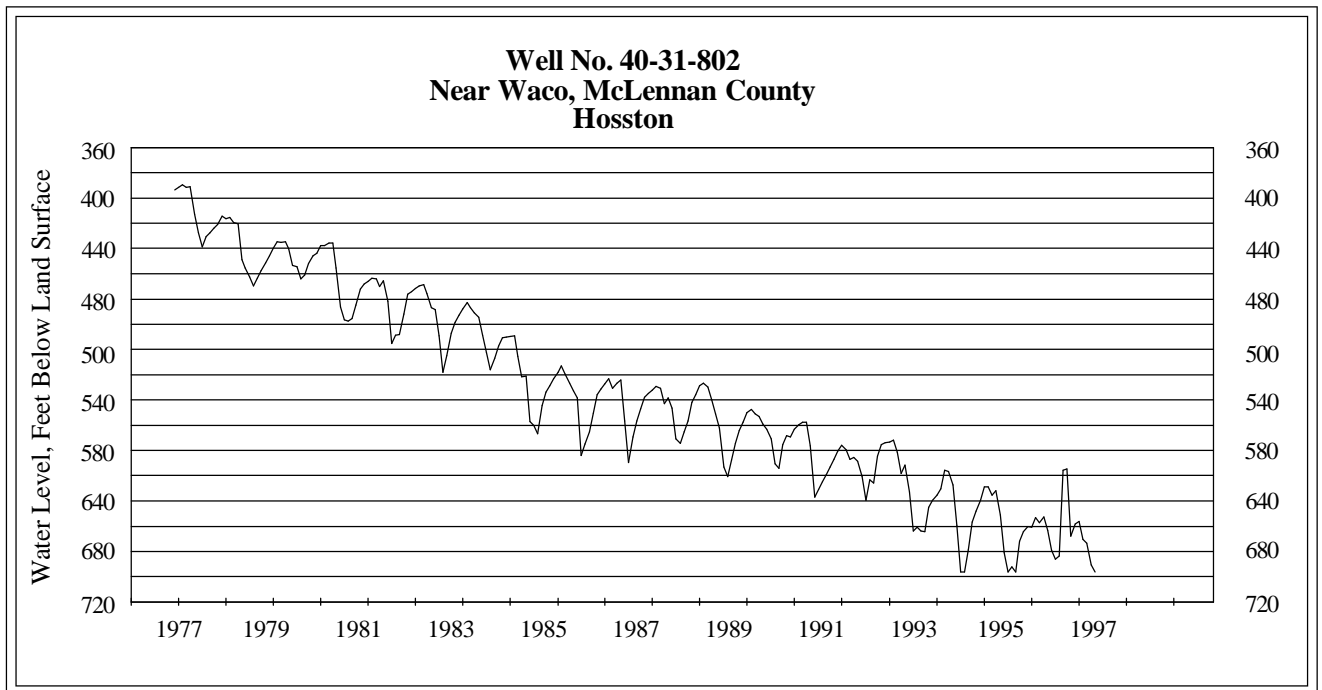
# GROUND WATER LEVELS IN OBSERVATION WELLS



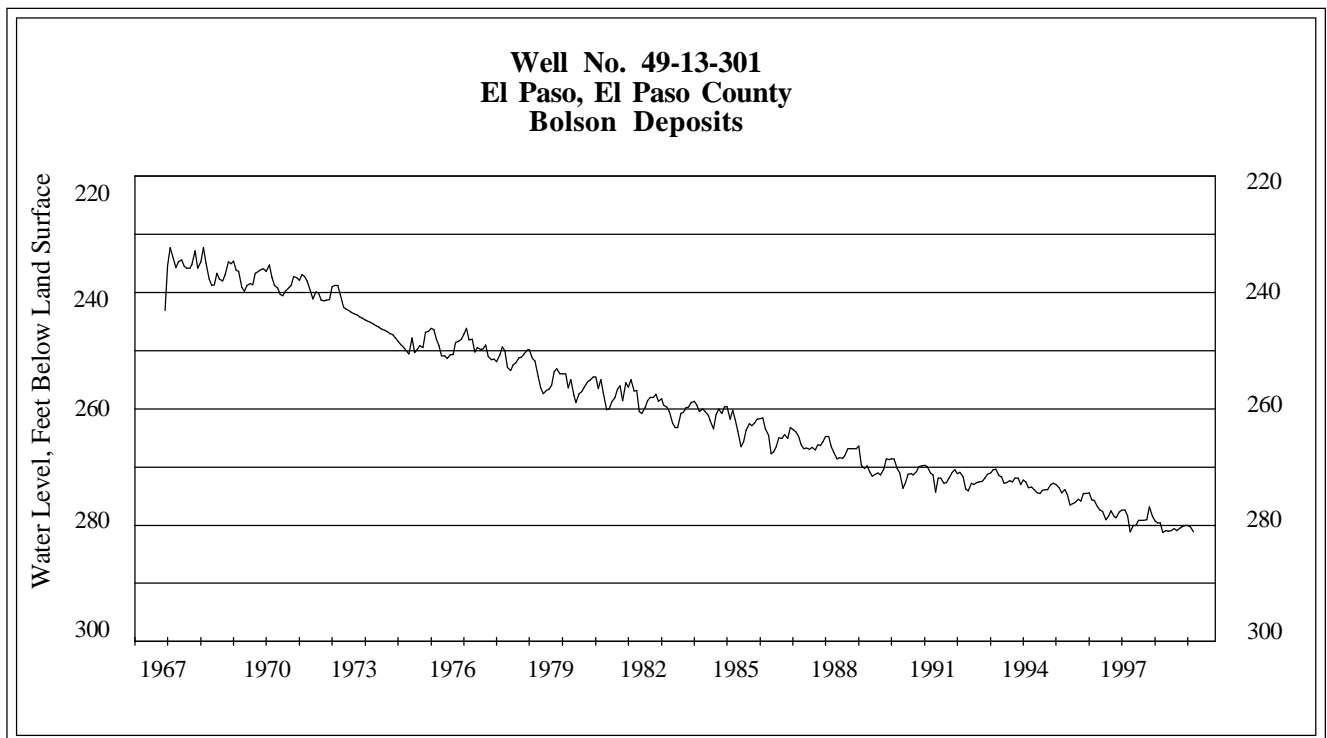
The May water-level measurement in this Ogallala aquifer well, elevation 3667 feet above sea level, was 108.51 feet below land surface. This was 0.20 of a foot below last month's measurement, 2.13 feet below last year's measurement, and 80.36 feet below the initial measurement recorded in 1950.



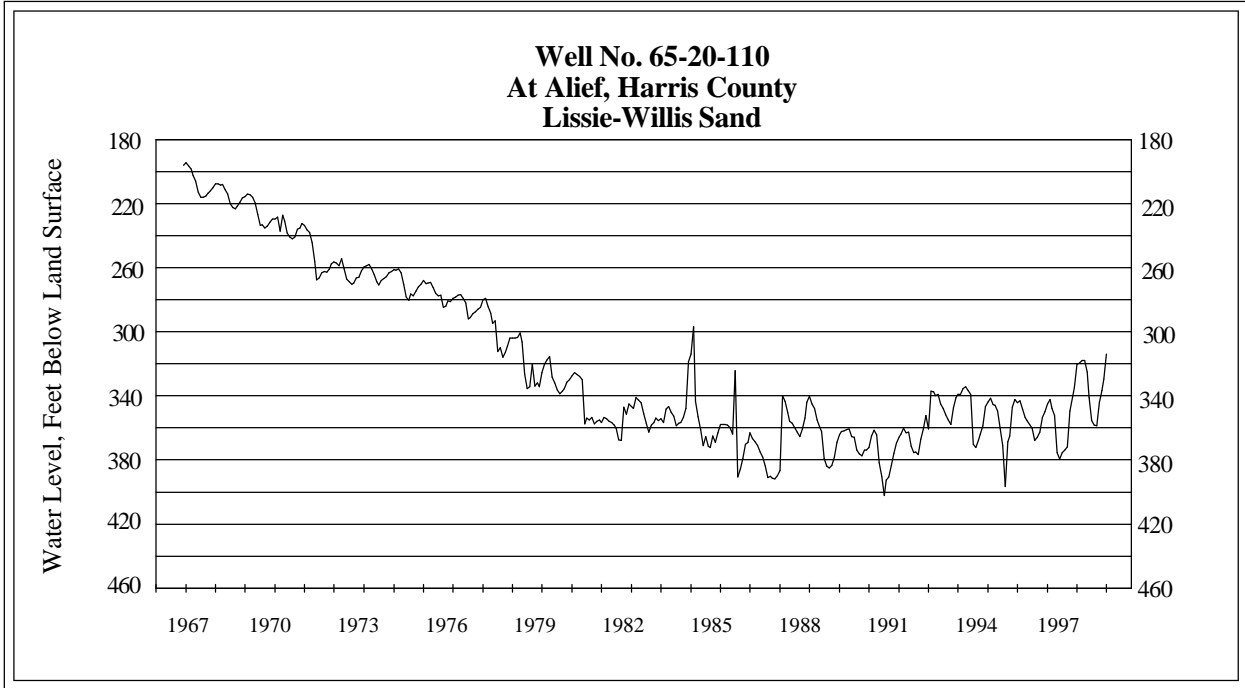
The May water-level measurement in this Paluxy aquifer well, elevation 535 feet above sea level, was 459.36 feet below land surface. This measurement was 1.17 feet below last month's measurement, 7.27 feet below last year's measurement, and 65.97 feet below the initial measurement recorded in 1953.



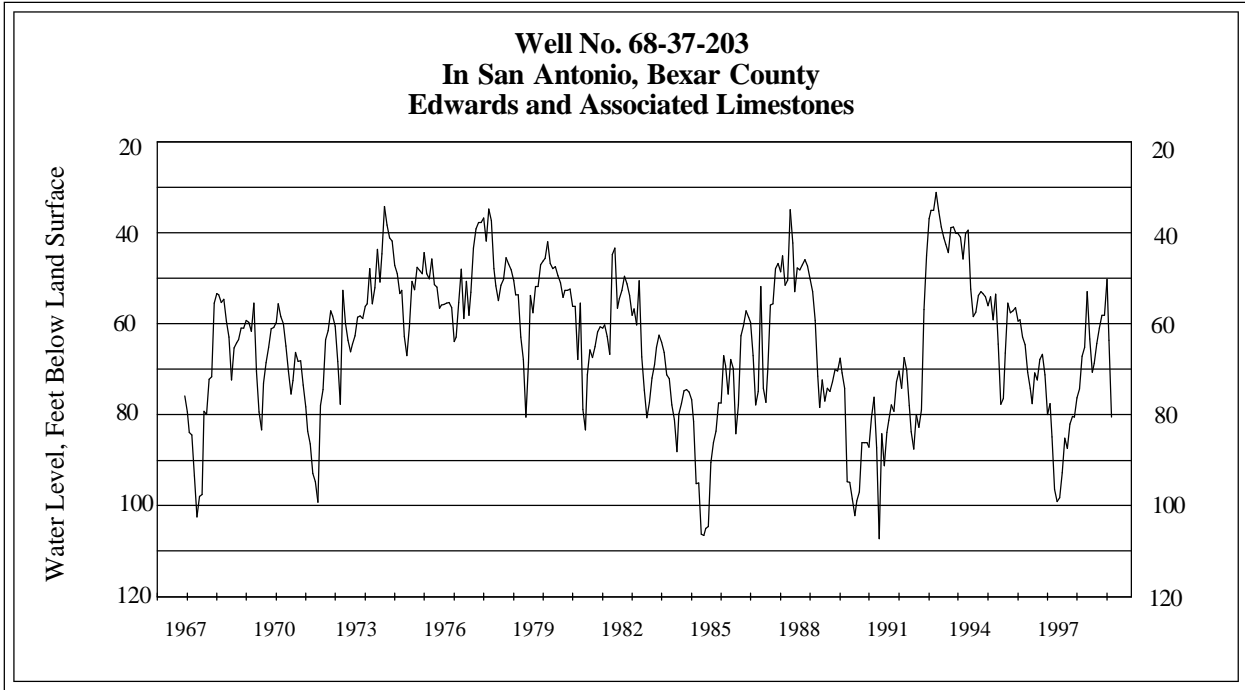
Current water-level measurements are unavailable from this Hosston Formation well due to cave-in problems. The well is scheduled to be repaired in 1998.



The May water-level measurement in this Bolson Deposits aquifer well, elevation 3882 feet above sea level, was 281.18 feet below land surface. This was 0.87 of a foot below last month's measurement, 1.52 feet below last year's measurement, and 49.28 feet below the initial measurement recorded in 1964.

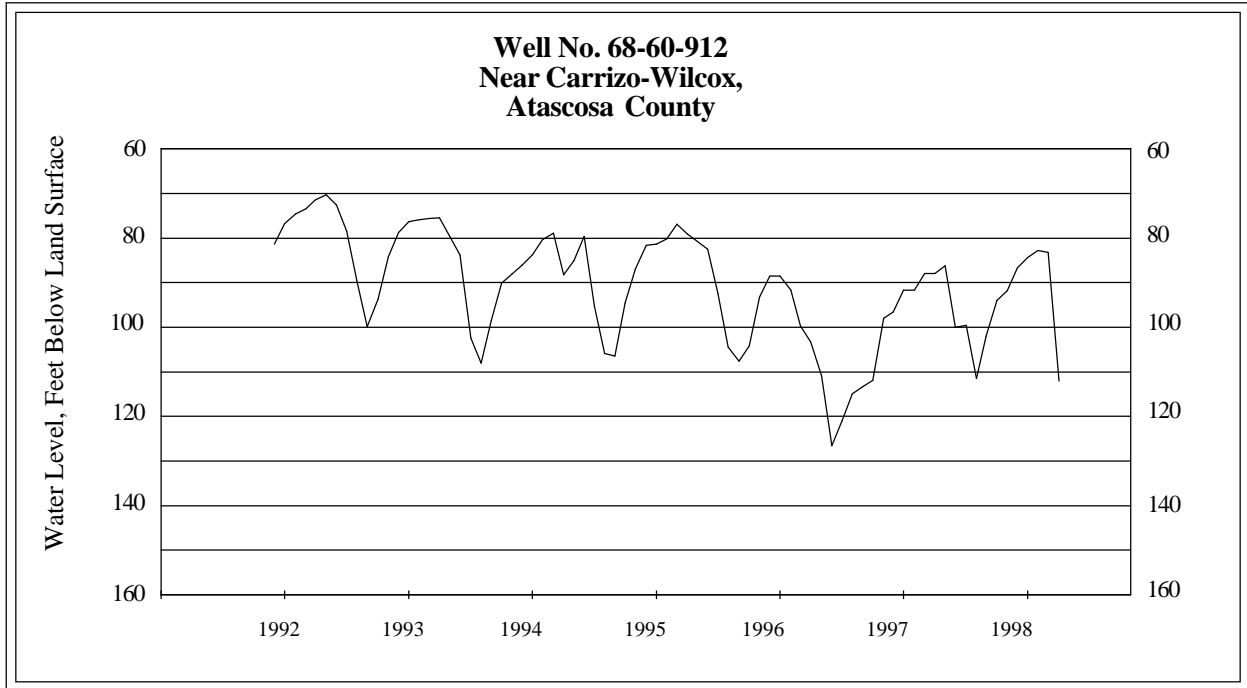


The May water-level measurement in this Lissie Willis Sand aquifer well, elevation 83 feet above sea level, was not available.



The May water-level measurement in this Edwards aquifer well, elevation 731 feet above sea level, was 80.60 feet below land surface. This was 16.90 feet below last month's measurement, 15.40 feet below last year's measurement, and 36.88 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 112.01 feet below land surface. This was 28.87 feet below last month's measurement, 24.05 feet below last year's measurement, and 30.76 feet below the initial measurement recorded in 1992.

