

# Texas Water Development Board



# WATER Conditions

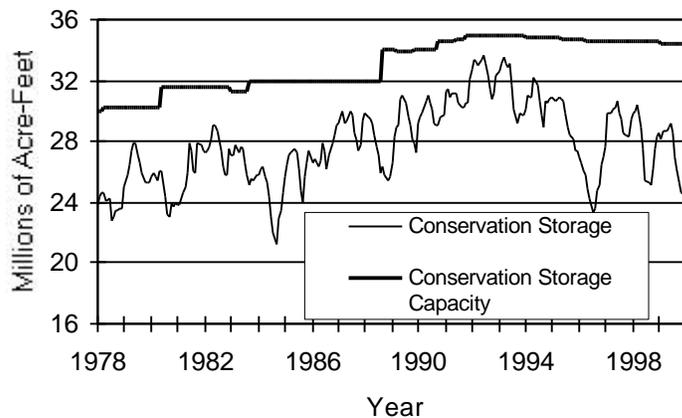
## RESERVOIR STORAGE

*February 2000*

Near the end of February, the 77 reservoirs monitored for this report held 24.1 million acre-feet in conservation storage. This is 69.8 percent of the conservation storage capacity of the State's major reservoirs, the lowest percentage of total capacity for a February in 23 years of record, and the fifth-lowest for all months in the record. This is the fourth consecutive month of record low reservoir levels. Compared to the end of January, storage decreased 0.12 million acre-feet (-0.3% of conservation storage capacity). Compared to this month last year, storage decreased 4.17 million acre-feet (-12.1%).

Of the monitored reservoirs, only 3 held 100 percent of conservation storage near the end of February. The largest regional decrease in February occurred in the Southern Region (-1.1%), and the largest increase occurred in the Upper Coast Region (+2.0%). The largest changes since the end of February 1999 occurred in the High Plains (+11.2%) and in the Upper Coast (-23.2%).

### 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.

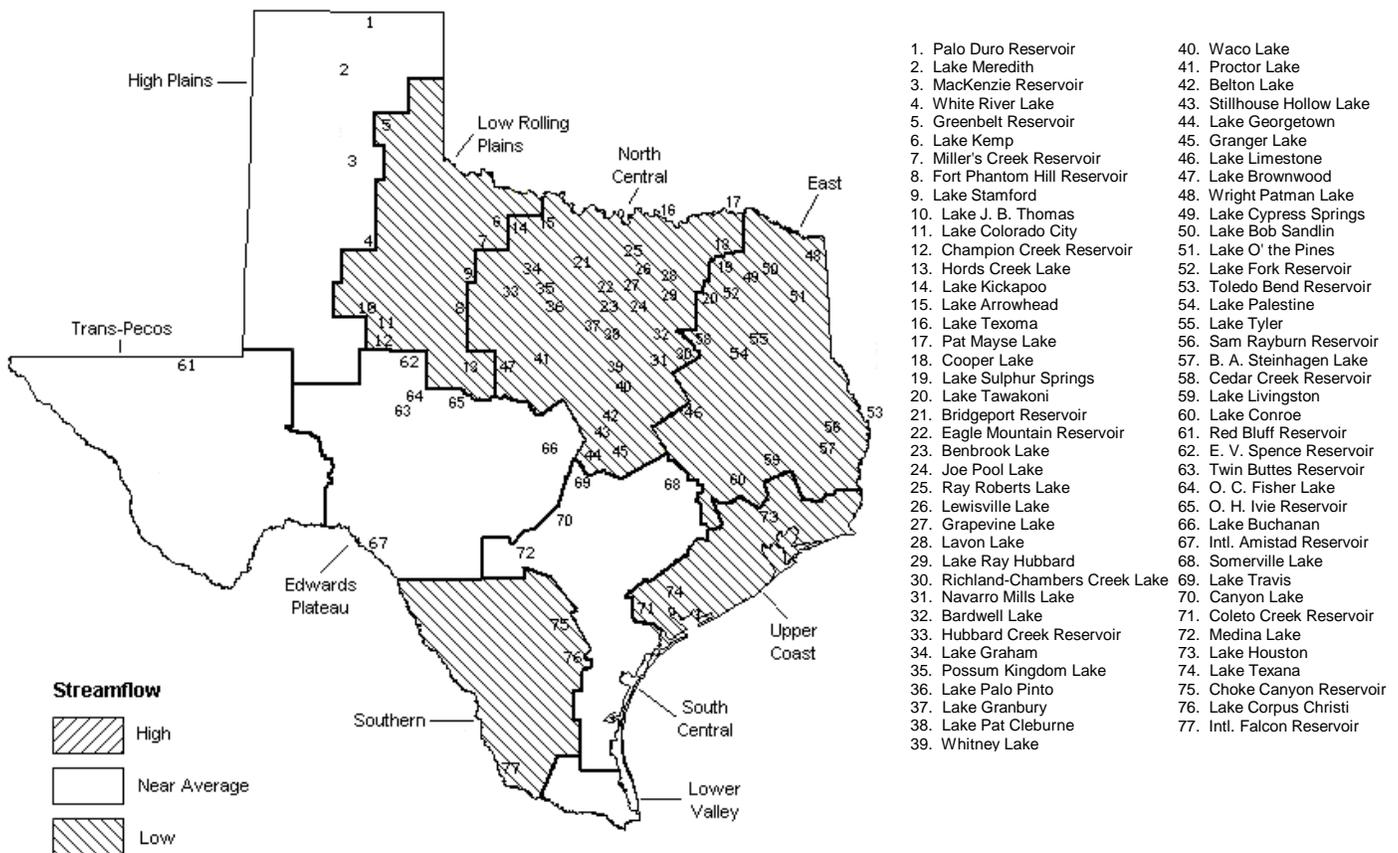
# STREAMFLOW

Of 25 reporting index stations in February, computed 30-day mean flows were high (5% - 30% exceedance) at 1 station, near normal (30% - 70% exceedance) at 14 stations, low (70% - 95% exceedance) at 9 stations and very low (95% - 100% exceedance) at 1 station. In comparison to January, flows increased at 11 index stations, decreased at 8 stations, and remained unchanged at 1 station.

Flows in February were below normal in five of nine climatic regions and near normal in the remaining four regions - High Plains, Trans-Pecos, Edwards Plateau, and South Central. Flows at all four reporting stations in the East region were below January levels. Two stations, North Concho River near Carlsbad and Elm Creek at Ballinger, recorded no flow in February.

## FEBRUARY STREAMFLOW CONDITIONS

Reservoirs Shown on Map



## CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late February 2000 (acre-feet)		Change since Late January 2000 (acre-feet)		Change since Late February 1999 (acre-feet)	
			(%)		(%)		(%)	
<b>HIGH PLAINS</b>								
Palo Duro Reservoir	1	60,900	16,245	27	-1,222	-2	7,634	13
Lake Meredith (Texas)	2	500,000	383,400	77	2,200	0	53,900	11
Lake Meredith (Texas and Oklahoma)	(2)	779,560	383,400	49	2,200	0	53,900	7
MacKenzie Reservoir	3	46,250	9,470	20	-230	0	2,408	5
White River Lake	4	31,850	16,010	50	-330	-1	7,752	24
TOTAL		639,000	425,125	67	418	0	71,694	11
<b>LOW ROLLING PLAINS</b>								
Greenbelt Reservoir	5	58,200	25,360	44	-40	0	-4,500	-8
Lake Kemp	6	319,600	143,900	45	100	0	-12,600	-4
Miller's Creek Reservoir	7	27,890	10,600	38	-100	0	-3,003	-11
Fort Phantom Hill Reservoir	8	70,030	20,590	29	140	0	-5,327	-8
Lake Stamford	9	52,700	10,890	21	-410	-1	-7,450	-14
Lake J. B. Thomas	10	202,300	27,930	14	-1,120	-1	21,510	11
Lake Colorado City	11	30,800	13,560	44	-440	-1	-780	-3
Champion Creek Reservoir	12	41,600	5,000	12	-40	0	-5,270	-13
Hords Creek Lake	13	8,600	3,110	36	-105	-1	-1,744	-20
TOTAL		811,720	260,940	32	-2,015	0	-19,164	-2
<b>NORTH CENTRAL</b>								
Lake Kickapoo	14	106,000	51,260	48	-39	0	-1,755	-2
Lake Arrowhead	15	262,100	128,300	49	-2,000	-1	-44,600	-17
Lake Texoma	16	2,722,300	2,225,431	82	-29,542	-1	-123,396	-5
Pat Mayse Lake	17	124,500	113,495	91	2,759	2	-7,645	-6
Cooper Lake	18	273,000	229,596	84	4,095	2	-32,425	-12
Lake Sulphur Springs	19	17,710	15,159	86	1,101	6	515	3
Lake Tawakoni	20	936,200	738,800	79	-6,700	-1	-197,400	-21
Bridgeport Reservoir	21	374,830	209,689	56	-3,276	-1	-72,287	-19
Eagle Mountain Reservoir	22	178,380	131,912	74	-3,956	-2	-12,757	-7
Benbrook Lake	23	88,200	69,437	79	1,336	2	-14,634	-17
Joe Pool Lake	24	175,800	156,988	89	-70	0	-18,812	-11
Ray Roberts Lake	25	798,760	574,558	72	-9,494	-1	-137,721	-17
Lewisville Lake	26	555,000	330,301	60	5,772	1	-119,445	-22
Grapevine Lake	27	187,700	129,318	69	0	0	-25,714	-14
Lavon Lake	28	443,800	306,543	69	7,612	2	-136,021	-31
Lake Ray Hubbard	29	413,420	413,420	100	0	0	0	0
Richland-Chambers Creek Lake	30	1,103,820	953,094	86	7,973	1	-150,726	-14
Navarro Mills Lake	31	55,810	41,230	74	2,213	4	-14,580	-26
Bardwell Lake	32	53,580	38,620	72	1,132	2	-14,960	-28
Hubbard Creek Reservoir	33	317,800	195,700	62	-3,200	-1	-51,600	-16
Lake Graham	34	45,000	38,620	86	-180	0	520	1
Poosum Kingdom Lake	35	551,820	423,400	77	-900	0	177,960	32
Lake Palo Pinto	36	42,200	27,990	66	-1,082	-3	2,957	7
Lake Granbury	37	135,680	113,893	84	-3,907	-3	-12,582	-9
Lake Pat Cleburne	38	25,300	16,020	63	-336	-1	-9,280	-37
Whitney Lake	39	622,800	428,900	69	1,300	0	-17,867	-3
Waco Lake	40	144,500	110,560	77	4,122	3	-33,940	-23
Proctor Lake	41	55,590	20,037	36	-550	-1	-12,733	-23
Belton Lake	42	434,500	371,916	86	-335	0	-62,584	-14
Stillhouse Hollow Lake	43	226,060	208,846	92	-3,822	-2	-17,214	-8
Lake Georgetown	44	37,010	24,730	67	-528	-1	-12,280	-33
Granger Lake	45	54,280	51,850	96	922	2	-2,430	-4
Lake Limestone	46	215,750	172,200	80	-2,000	-1	-41,600	-19
Lake Brownwood	47	143,400	81,850	57	-1,180	-1	-28,354	-20
TOTAL		11,922,600	9,143,663	77	-32,760	0	-1,245,390	-10

## 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 January 2000		Change since Late February 1999	
			Late February 2000 (acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)	(%)
<b>EAST</b>								
Wright Patman Lake	48	142,700	142,700	100	0	0	0	0
Lake Cypress Springs	49	66,800	64,040	96	1,340	2	-2,760	-4
Lake Bob Sandlin	50	202,300	183,400	91	1,100	1	-18,900	-9
Lake O' the Pines	51	252,000	234,064	93	2,149	1	-17,936	-7
Lake Fork Reservoir	52	635,200	595,100	94	12,800	2	-40,100	-6
Toledo Bend Reservoir	53	4,472,900	3,443,000	77	-32,000	-1	-760,000	-17
Lake Palestine	54	411,300	360,800	88	6,500	2	-50,500	-12
Lake Tyler	55	73,700	71,928	98	133	0	-1,772	-2
Sam Rayburn Reservoir	56	2,876,300	1,810,000	63	-66,000	-2	-1,066,300	-37
B. A. Steinhagen Lake	57	94,200	38,611	41	10,300	11	-12,690	-13
Cedar Creek Reservoir	58	637,050	548,961	86	-2,664	0	-88,089	-14
Lake Livingston	59	1,750,000	1,750,000	100	0	0	0	0
Lake Conroe	60	429,900	375,200	87	200	0	-39,500	-9
TOTAL		12,044,350	9,617,804	80	-66,142	-1	-2,098,547	-17
<b>TRANS-PECOS</b>								
Red Bluff Reservoir	61	307,000	89,540	29	1,640	1	18,240	6
TOTAL		307,000	89,540	29	1,640	1	18,240	6
<b>EDWARDS PLATEAU</b>								
E. V. Spence Reservoir	62	484,800	55,270	11	-1,310	0	-16,940	-3
Twin Buttes Reservoir	63	177,800	6,299	4	-153	0	-8,026	-5
O.C. Fisher Lake	64	119,200	7,578	6	-187	0	-4,534	-4
O. H. Ivie Reservoir	65	554,340	309,000	56	-6,100	-1	-107,500	-19
Lake Buchanan	66	896,980	606,863	68	185	0	-204,509	-23
Amistad Reservoir (Texas)	67	1,771,030	1,051,000	59	4,000	0	40,000	2
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	1,415,000	45	12,000	0	-21,000	-1
TOTAL		4,004,150	2,036,010	51	-3,565	0	-301,509	-8
<b>SOUTH CENTRAL</b>								
Somerville Lake	68	155,060	143,354	92	1,594	1	-11,706	-8
Lake Travis	69	1,144,100	830,045	73	14,085	1	-314,055	-27
Canyon Lake	70	385,600	356,062	92	632	0	-24,383	-6
Coletto Creek Reservoir	71	35,060	27,720	79	490	1	-3,940	-11
Medina Lake	72	254,000	186,800	74	-10,900	-4	-63,800	-25
TOTAL		1,973,820	1,543,981	78	5,901	0	-417,884	-21
<b>UPPER COAST</b>								
Lake Houston	73	128,860	109,500	85	3,700	3	-19,360	-15
Lake Texana	74	157,900	110,700	70	1,900	1	-47,200	-30
TOTAL		286,760	220,200	77	5,600	2	-66,560	-23

## CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

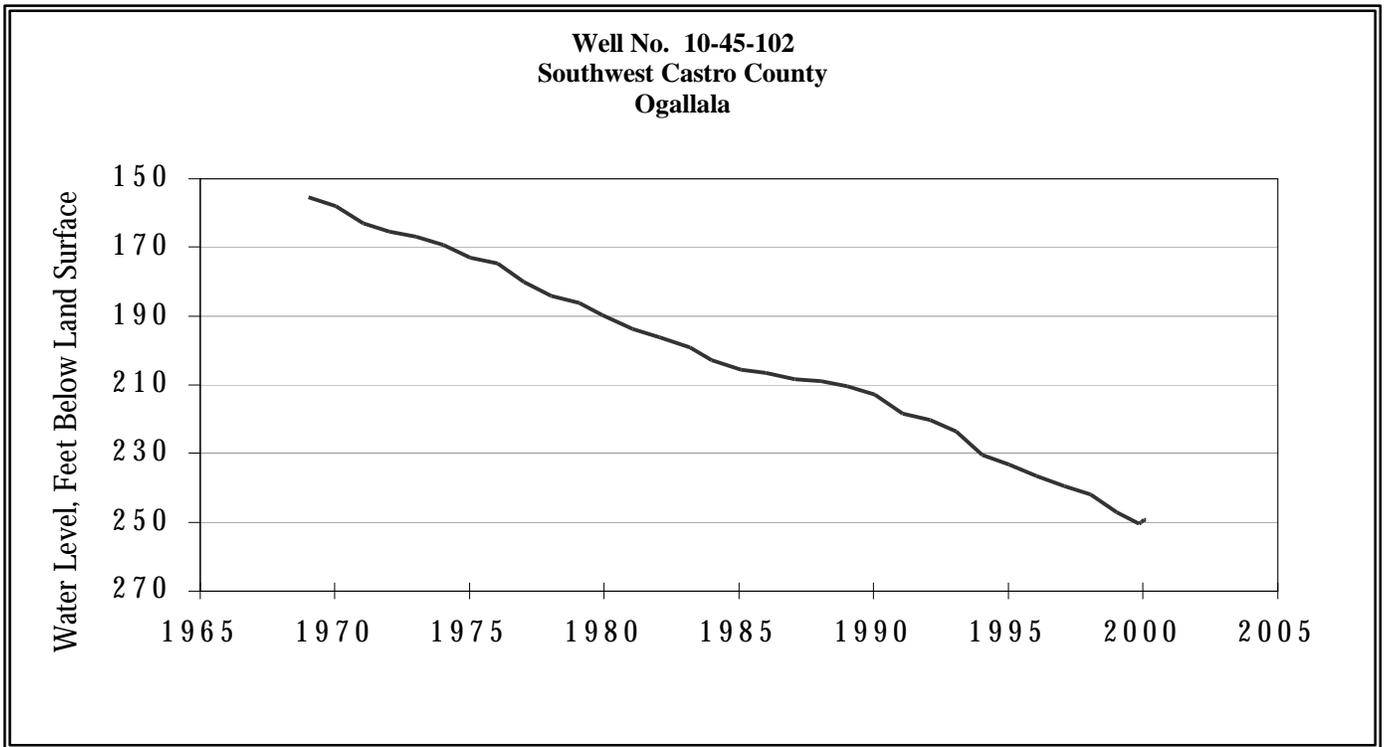
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late February 2000 (acre-feet) (%)	Change since Late January 2000 (acre-feet) (%)	Change since Late February 1999 (acre-feet) (%)
<b>SOUTHERN</b>					
Choke Canyon Reservoir	75	695,260	286,000 41	-7,000 -1	-70,958 -10
Lake Corpus Christi	76	241,240	141,700 59	-3,600 -1	-40,232 -17
Falcon Reservoir (Texas)	77	1,555,120	290,000 19	-18,000 -1	3,000 0
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	593,000 22	-19,000 -1	36,000 1
TOTAL		2,491,620	717,700 29	-28,600 -1	-108,190 -4
<b>STATE TOTAL</b>		34,481,020	24,054,963 70	-119,523 0	-4,167,310 -12

**Note:**

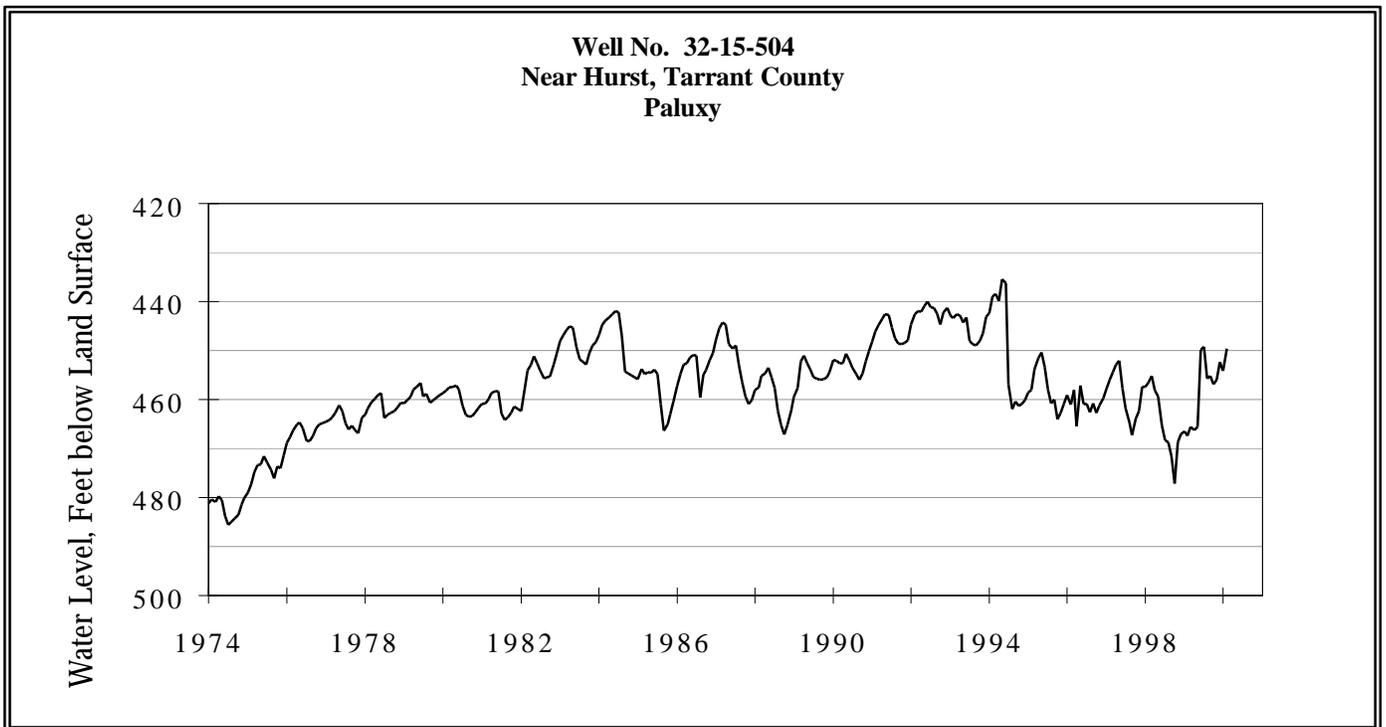
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included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

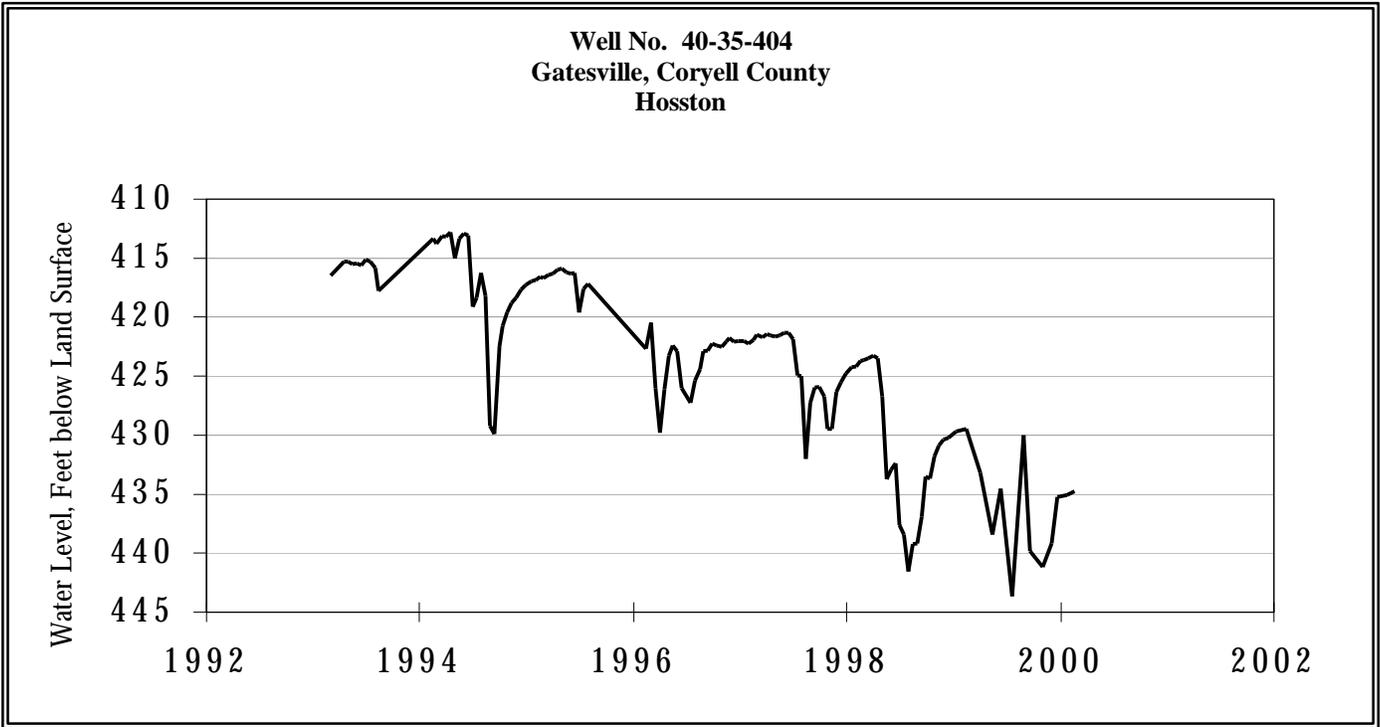
# FEBRUARY GROUND WATER LEVELS IN OBSERVATION WELLS



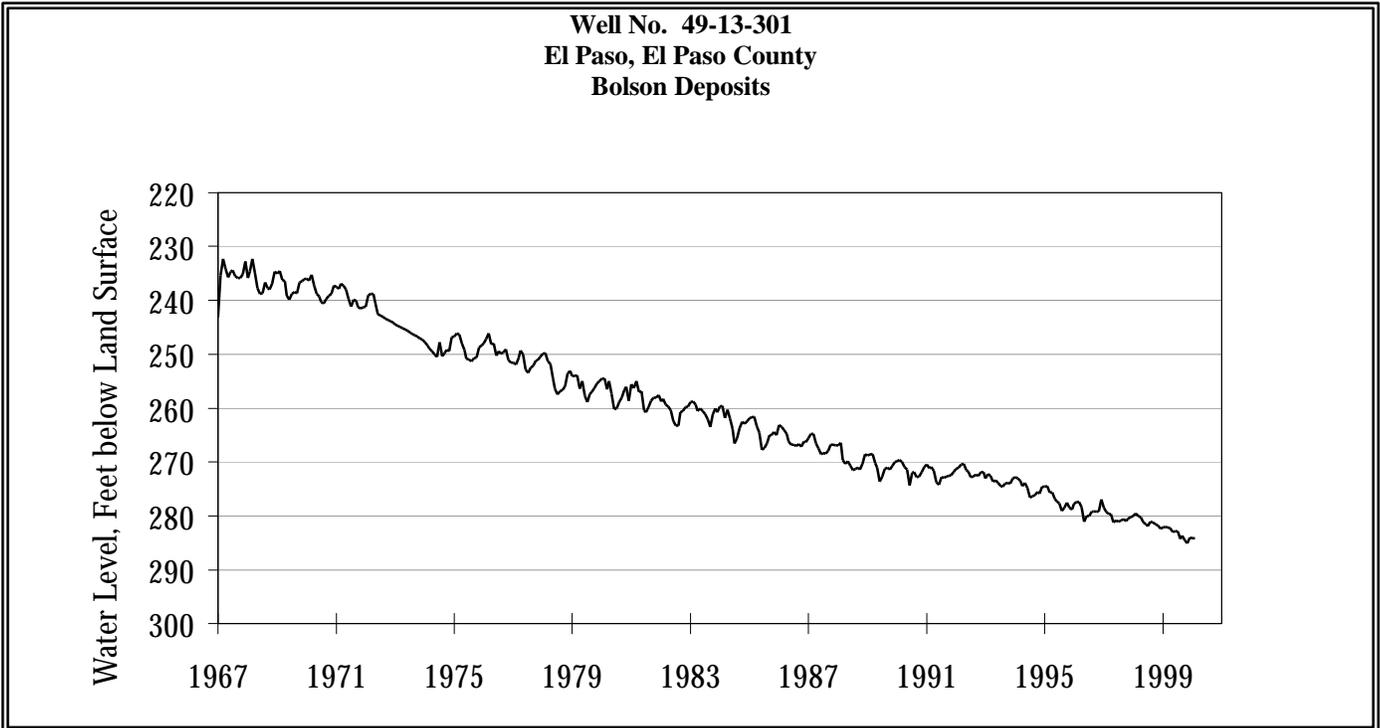
The February water-level measurements in this Ogallala well, elevation 3,816 feet above sea level, was 249.35 feet below land surface. This measurement was 0.11 feet above last month's measurement and 93.35 feet below the initial measurement recorded in 1968.



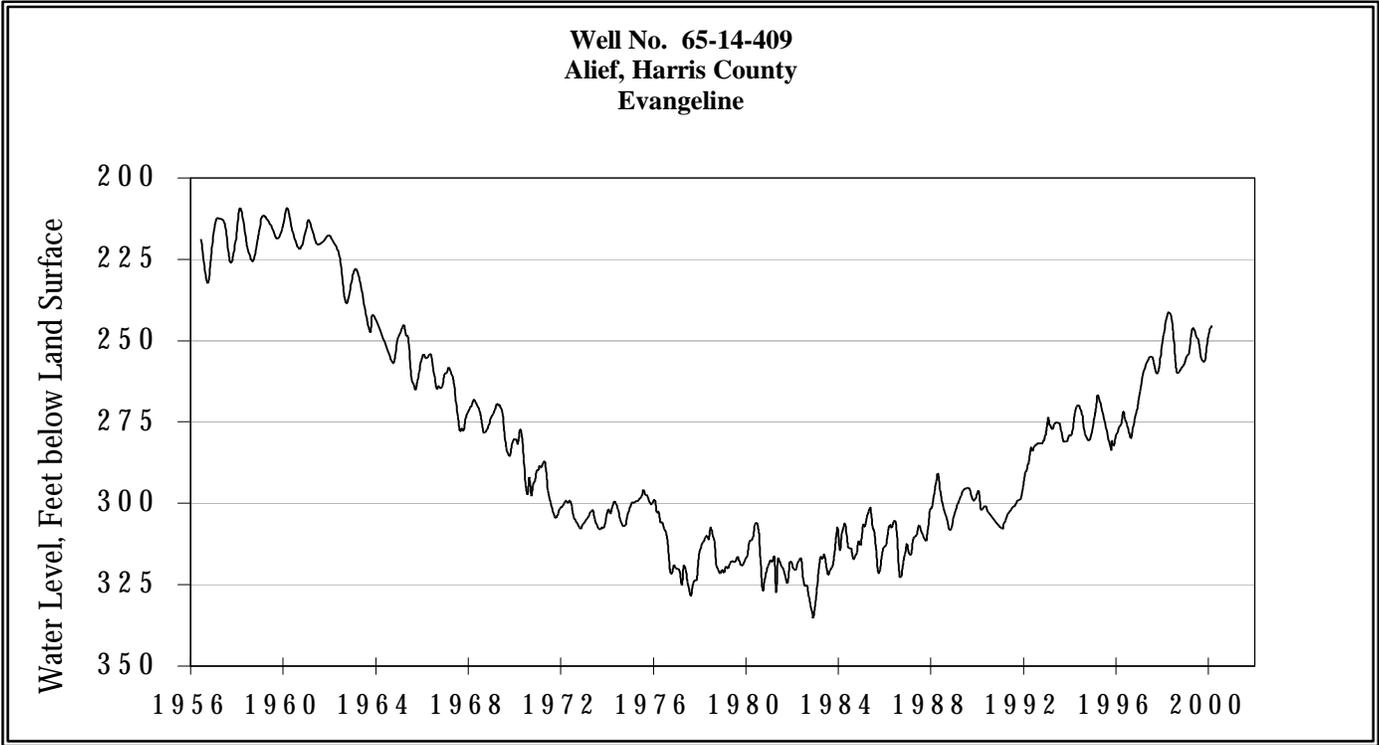
The February water-level measurement in this Paluxy aquifer well, elevation 535 feet above sea level, was 449.66 feet below land surface. This measurement was 4.51 feet above last month's measurement, 17.37 feet above last year's measurement, and 56.27 feet below the initial measurement recorded in 1953.



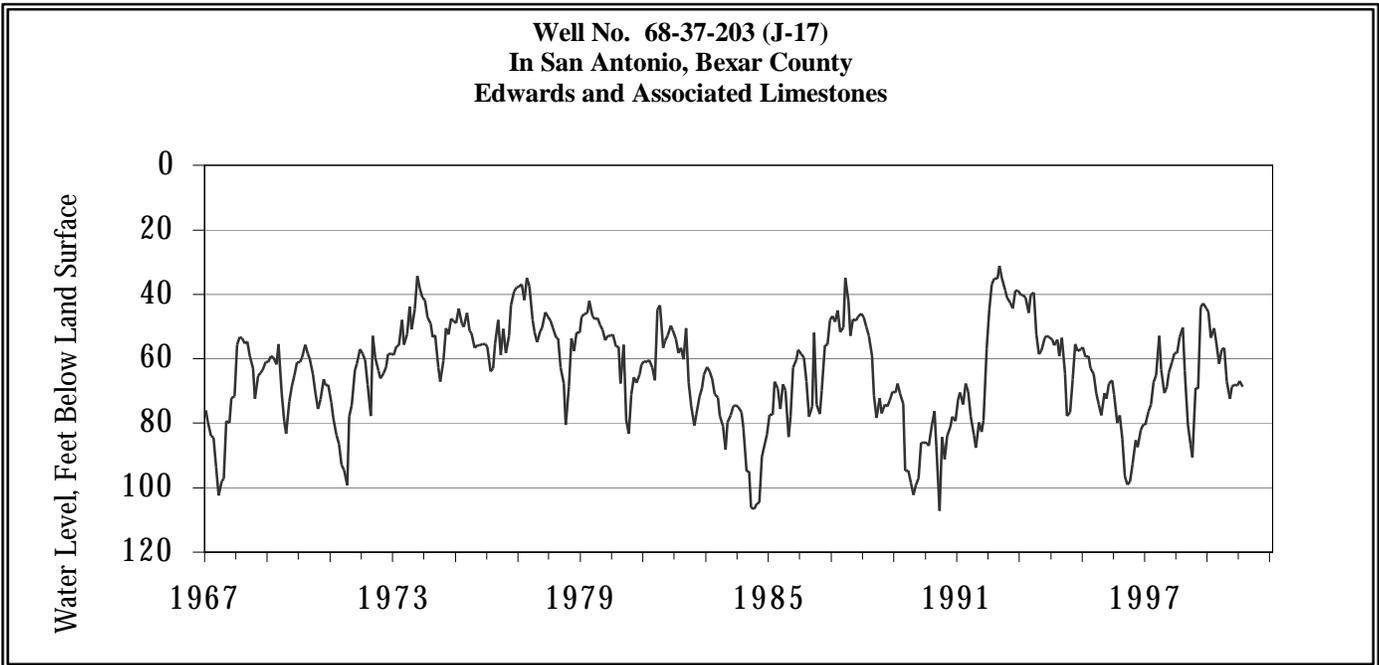
The February water-level measurement in this Hosston Formation aquifer well, elevation 823 feet above sea level, was 434.74 feet below land surface. This measurement was 0.33 feet above last month's measurement, 5.00 feet below last year's measurement, and 142.74 feet below the initial measurement recorded in 1955.



The February water-level measurement in this Bolson Deposits aquifer well, elevation 3,882 feet above sea level, was 284.15 feet below land surface. This was 0.08 of a foot below last month's measurement, 2.11 feet below last year's measurement, and 52.25 feet below the initial measurement recorded in 1964.

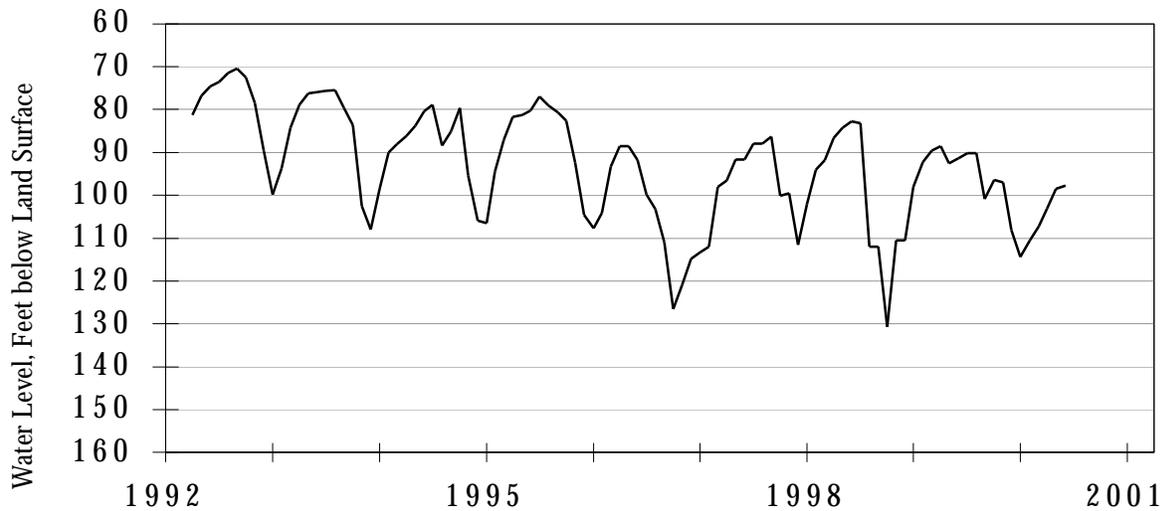


The February water-level measurement in this Evangeline aquifer well, elevation 66 feet above sea level, was 245.47 feet below land surface. This was 0.78 feet above last month's measurement, 8.57 feet above last year's measurement, and 142.24 feet below the initial measurement recorded in 1947.



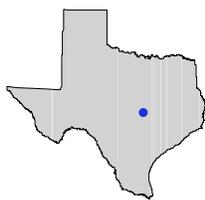
The February water-level measurement in this Edwards aquifer well, elevation 731 feet above sea level, was 68.65 feet below land surface. This was 1.77 feet below last month's measurement, 15.05 feet below last year's measurement, and 9.03 feet below the initial measurement recorded in 1962.

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



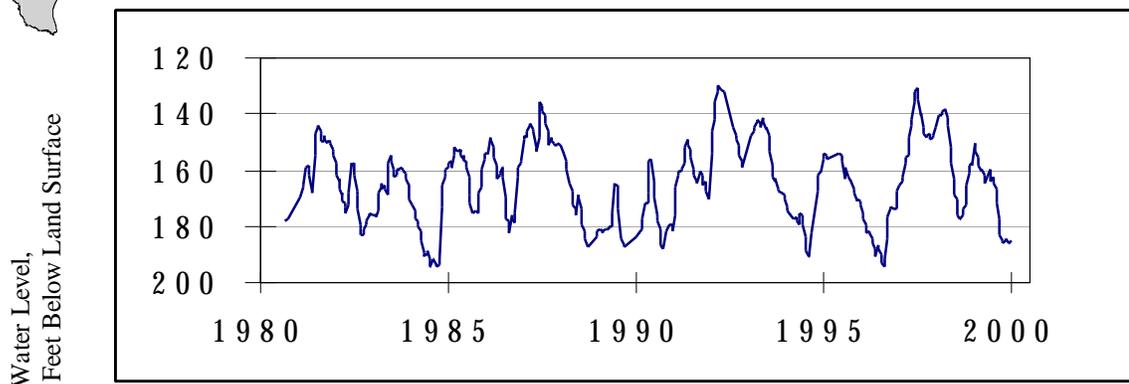
The February water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 97.71 feet below land surface. This was 0.71 feet above last month's measurement, 5.12 feet below last year's measurement, and 16.46 feet below the initial measurement recorded in 1965.

***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. 58-27-305  
Williamson County**



This 314-foot-deep observation well, at an elevation 840 feet above sea level and located southeast of Georgetown, is completed in the Edwards (BFZ) aquifer. The graph illustrates the cyclic nature of the water-level change in response to both seasonal and annual discharge and recharge.