

# Texas Water Development Board



**W** *Conditions* **A** **T** **E** **R**

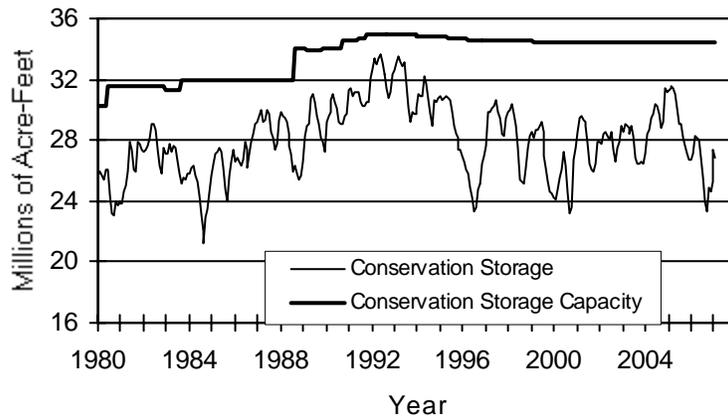
## RESERVOIR STORAGE

*February 2007*

Near the end of February, the 77 reservoirs monitored for this report held 26.87 million acre-feet in conservation storage, or 78 percent of the conservation storage capacity of the state's major reservoirs. Statewide total storage is below normal for this time of year. Storage decreased during the month by 0.5 million acre-feet (-1.45% of conservation storage capacity). Compared to last year, storage decreased by 0.23 million acre-feet (-0.67%).

Storage was near capacity in the Upper Coast Region (98%) and East Region (95%), but lower than one-third of capacity in the High Plains Region (19%). Storage was at 100% in 10 reservoirs, but very low in others such as O.C. Fisher, which was at 7%. Compared to this time last year, the storage increased in Upper Coast (8%) and East Region (12%) and decreased in all other regions, with the sharpest decrease in the Edwards Plateau Region (-20%).

### 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.

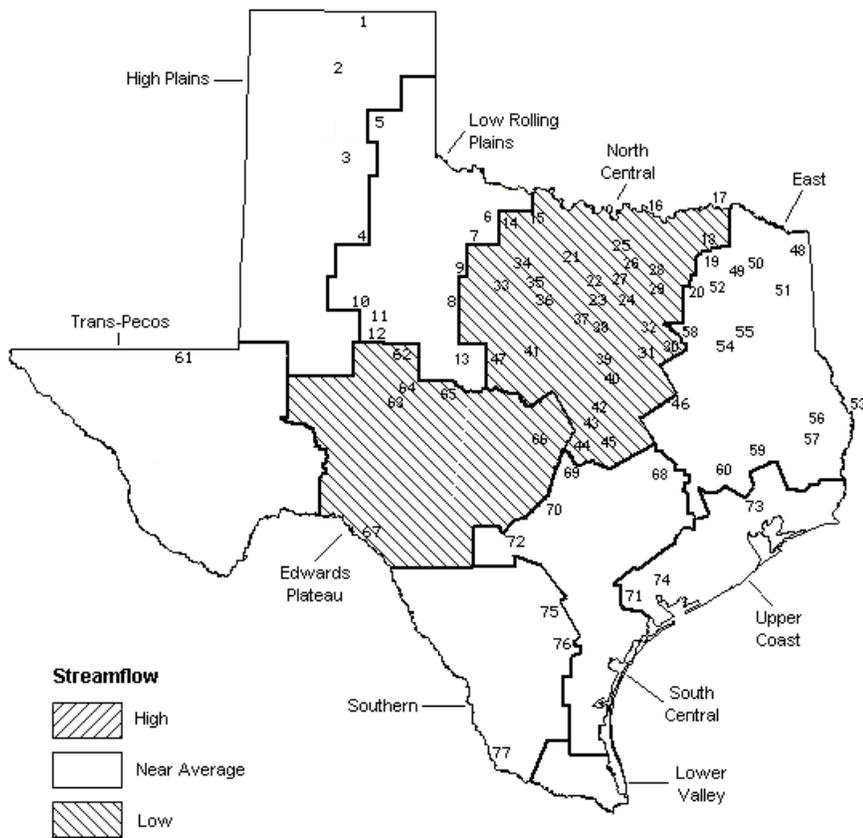
# STREAMFLOW

Of 29 reporting index stations in February, computed 30-day mean flows were high (5% - 30%) at 3 stations, low (70% - 95%) at 8 stations, very low (>95%) at 1 stations, and near normal (30% - 70% exceedance) at the remaining 17 stations. Compared to January, flows have increased at 5 index stations, decreased at 20 stations, and remained unchanged at 4 stations.

On a regional basis, flows in February were low in North Central and Edwards Plateau Regions, but normal everywhere else. Streamflow in the Lower Valley Region is not monitored.

## FEBRUARY STREAMFLOW CONDITIONS

Reservoirs Shown on Map



- |                                  |                             |
|----------------------------------|-----------------------------|
| 1. Palo Duro Reservoir           | 40. Waco Lake               |
| 2. Lake Meredith                 | 41. Proctor Lake            |
| 3. MacKenzie Reservoir           | 42. Belton Lake             |
| 4. White River Lake              | 43. Stillhouse Hollow Lake  |
| 5. Greenbelt Reservoir           | 44. Lake Georgetown         |
| 6. Lake Kemp                     | 45. Granger Lake            |
| 7. Miller's Creek Reservoir      | 46. Lake Limestone          |
| 8. Fort Phantom Hill Reservoir   | 47. Lake Brownwood          |
| 9. Lake Stamford                 | 48. Wright Patman Lake      |
| 10. Lake J. B. Thomas            | 49. Lake Cypress Springs    |
| 11. Lake Colorado City           | 50. Lake Bob Sandlin        |
| 12. Champion Creek Reservoir     | 51. Lake O' the Pines       |
| 13. Hords Creek Lake             | 52. Lake Fork Reservoir     |
| 14. Lake Kickapoo                | 53. Toledo Bend Reservoir   |
| 15. Lake Arrowhead               | 54. Lake Palestine          |
| 16. Lake Texoma                  | 55. Lake Tyler              |
| 17. Pat Mayse Lake               | 56. Sam Rayburn Reservoir   |
| 18. Cooper Lake                  | 57. B. A. Steinhagen Lake   |
| 19. Lake Sulphur Springs         | 58. Cedar Creek Reservoir   |
| 20. Lake Tawakoni                | 59. Lake Livingston         |
| 21. Bridgeport Reservoir         | 60. Lake Conroe             |
| 22. Eagle Mountain Reservoir     | 61. Red Bluff Reservoir     |
| 23. Benbrook Lake                | 62. E. V. Spence Reservoir  |
| 24. Joe Pool Lake                | 63. Twin Buttes Reservoir   |
| 25. Ray Roberts Lake             | 64. O. C. Fisher Lake       |
| 26. Lewisville Lake              | 65. O. H. Ivie Reservoir    |
| 27. Grapevine Lake               | 66. Lake Buchanan           |
| 28. Lavon Lake                   | 67. Intl. Amistad Reservoir |
| 29. Lake Ray Hubbard             | 68. Somerville Lake         |
| 30. Richland-Chambers Creek Lake | 69. Lake Travis             |
| 31. Navarro Mills Lake           | 70. Canyon Lake             |
| 32. Bardwell Lake                | 71. Coletto Creek Reservoir |
| 33. Hubbard Creek Reservoir      | 72. Medina Lake             |
| 34. Lake Graham                  | 73. Lake Houston            |
| 35. Possum Kingdom Lake          | 74. Lake Texana             |
| 36. Lake Palo Pinto              | 75. Choke Canyon Reservoir  |
| 37. Lake Granbury                | 76. Lake Corpus Christi     |
| 38. Lake Pat Cleburne            | 77. Intl. Falcon Reservoir  |
| 39. Whitney Lake                 |                             |

## CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation	Conservation	Change since		Change since		
		Storage Capacity (acre-feet)	Storage Late Feb. 2007 (acre-feet) (%)	Late January 2007 (acre-feet) (%)	Late February 2006 (acre-feet) (%)			
<b>HIGH PLAINS</b>								
Palo Duro Reservoir	1	60,900	1,380	2	-100	0	-350	-1
Lake Meredith (Texas)	2	500,000	108,040	22	0	0	-30,970	-6
Lake Meredith (Texas and Oklahoma)	(2)	779,560	108,040	14	0	0	-30,970	-4
MacKenzie Reservoir	3	46,250	8,640	19	-60	0	-890	-2
White River Lake	4	31,850	4,240	13	-150	0	-1,400	-4
<b>TOTAL</b>		<b>639,000</b>	<b>122,300</b>	<b>19</b>	<b>-310</b>	<b>0</b>	<b>-33,610</b>	<b>-5</b>
<b>LOW ROLLING PLAINS</b>								
Greenbelt Reservoir	5	58,200	19,300	33	220	0	-2,090	-4
Lake Kemp	6	319,600	226,300	71	-280	0	-39,120	-12
Miller's Creek Reservoir	7	27,890	20,350	73	-280	-1	-5,220	-19
Fort Phantom Hill Reservoir	8	70,030	35,630	51	-1,130	-2	-8,430	-12
Lake Stamford	9	52,700	32,490	62	-410	-1	-15,420	-29
Lake J. B. Thomas	10	202,300	27,380	14	-1,710	-1	-27,780	-14
Lake Colorado City	11	30,800	23,280	76	-190	-1	-4,330	-14
Champion Creek Reservoir	12	41,600	5,160	12	-20	0	-660	-2
Hords Creek Lake	13	8,600	4,480	52	-90	-1	-1,970	-23
<b>TOTAL</b>		<b>811,720</b>	<b>394,370</b>	<b>49</b>	<b>-3,890</b>	<b>0</b>	<b>-105,020</b>	<b>-13</b>
<b>NORTH CENTRAL</b>								
Lake Kickapoo	14	106,000	68,280	64	-960	-1	-22,320	-21
Lake Arrowhead	15	262,100	176,670	67	-1,260	0	-44,400	-17
Lake Texoma	16	2,722,300	2,427,120	89	-89,400	-3	98,370	4
Pat Mayse Lake	17	124,500	112,500	90	-1,170	-1	20,890	17
Cooper Lake	18	273,000	155,140	57	-7,710	-3	32,930	12
Lake Sulphur Springs	19	17,710	17,710	100	0	0	4,200	24
Lake Tawakoni	20	936,200	610,500	65	-2,400	0	11,200	1
Bridgeport Reservoir	21	374,830	188,600	50	-1,200	0	-53,000	-14
Eagle Mountain Reservoir	22	178,380	110,700	62	-2,900	-2	-30,700	-17
Benbrook Lake	23	88,200	77,600	88	550	1	23,330	26
Joe Pool Lake	24	175,800	175,800	100	0	0	21,590	12
Ray Roberts Lake	25	798,760	608,700	76	-4,810	-1	-91,240	-11
Lewisville Lake	26	555,000	485,650	88	-3,180	-1	34,910	6
Grapevine Lake	27	187,700	110,340	59	-2,070	-1	-25,740	-14
Lavon Lake	28	443,800	315,290	71	9,470	2	37,940	9
Lake Ray Hubbard	29	413,420	373,300	90	-9,000	-2	24,600	6
Richland-Chambers Creek Lake	30	1,103,820	879,900	80	11,600	1	-32,000	-3
Navarro Mills Lake	31	55,810	25,810	46	330	1	-12,640	-23
Bardwell Lake	32	53,580	47,920	89	360	1	12,190	23
Hubbard Creek Reservoir	33	317,800	149,430	47	-2,020	-1	-32,250	-10
Lake Graham	34	45,000	33,470	74	-520	-1	-8,280	-18
Possum Kingdom Lake	35	551,820	516,050	94	670	0	23,120	4
Lake Palo Pinto	36	27,650	11,850	43	-450	-2	-1,900	-7
Lake Granbury	37	135,680	131,860	97	-780	-1	-1,610	-1
Lake Pat Cleburne	38	25,300	25,300	100	0	0	6,600	26
Whitney Lake	39	622,800	464,880	75	2,320	0	-23,780	-4
Waco Lake	40	144,500	123,210	85	980	1	-21,290	-15
Proctor Lake	41	55,590	25,080	45	-410	-1	-8,630	-16
Belton Lake	42	434,500	356,830	82	-3,180	-1	-39,900	-9
Stillhouse Hollow Lake	43	226,060	211,620	94	420	0	-10,070	-4
Lake Georgetown	44	37,010	20,700	56	710	2	-760	-2
Granger Lake	45	54,280	54,280	100	0	0	0	0
Lake Limestone	46	215,750	212,320	98	-1,980	-1	41,150	19
Lake Brownwood	47	143,400	91,840	64	-900	-1	-25,980	-18
<b>TOTAL</b>		<b>11,908,050</b>	<b>9,396,250</b>	<b>79</b>	<b>-108,890</b>	<b>-1</b>	<b>-93,470</b>	<b>-1</b>

## CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

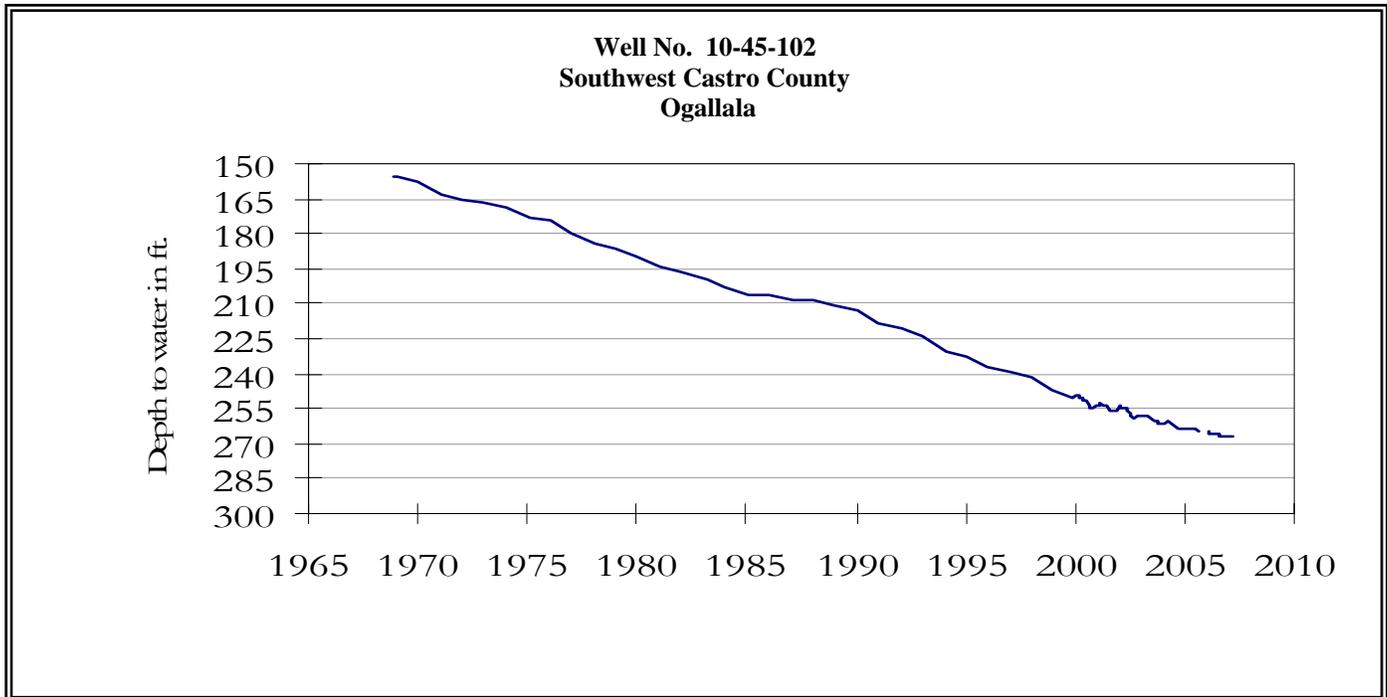
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage		Change since Late January 2007		Change since Late February 2006		
			(acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)	(%)	
<b>EAST</b>									
Wright Patman Lake	48	142,700	142,700	100	0	0	5,630	4	
Lake Cypress Springs	49	66,800	60,100	90	30	0	1,260	2	
Lake Bob Sandlin	50	202,300	143,200	71	1,000	0	-13,800	-7	
Lake O' the Pines	51	252,000	246,210	98	-5,790	-2	62,410	25	
Lake Fork Reservoir	52	635,200	621,300	98	-2,600	0	48,000	8	
Toledo Bend Reservoir	53	4,472,900	4,094,000	92	-353,000	-8	647,000	14	
Lake Palestine	54	411,300	410,040	100	-1,260	0	59,910	15	
Lake Tyler	55	73,700	63,630	86	1,650	2	1,490	2	
Sam Rayburn Reservoir	56	2,876,300	2,876,300	100	0	0	249,370	9	
B. A. Steinhagen Lake	57	94,200	620	1	-110	0	-49,390	-52	
Cedar Creek Reservoir	58	637,050	569,200	89	-8,100	-1	64,500	10	
Lake Livingston	59	1,750,000	1,743,000	100	-7,000	0	311,000	18	
Lake Conroe	60	429,900	415,600	97	-1,600	0	66,500	15	
<b>TOTAL</b>		<b>12,044,350</b>	<b>11,385,900</b>	<b>95</b>	<b>-376,780</b>	<b>-3</b>	<b>1,453,880</b>	<b>12</b>	
<b>TRANS-PECOS</b>									
Red Bluff Reservoir	61	307,000	106,200	35	210	0	-23,300	-8	
<b>TOTAL</b>		<b>307,000</b>	<b>106,200</b>	<b>35</b>	<b>210</b>	<b>0</b>	<b>-23,300</b>	<b>-8</b>	
<b>EDWARDS PLATEAU</b>									
E. V. Spence Reservoir	62	488,760	67,030	14	-1,040	0	-23,230	-5	
Twin Buttes Reservoir	63	177,800	38,300	22	1,180	1	-13,250	-7	
O.C. Fisher Lake	64	119,200	7,770	7	-130	0	-5,400	-5	
O. H. Ivie Reservoir	65	554,340	216,900	39	-1,900	0	-69,400	-13	
Lake Buchanan	66	896,980	468,730	52	600	0	-277,460	-31	
Amistad Reservoir (Texas)	67	1,771,030	1,836,000	104	-13,000	-1	-409,000	-23	
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	2,569,000	82	0	0	-144,000	-5	
<b>TOTAL</b>		<b>4,008,110</b>	<b>2,634,730</b>	<b>66</b>	<b>-14,290</b>	<b>0</b>	<b>-797,740</b>	<b>-20</b>	
<b>SOUTH CENTRAL</b>									
Somerville Lake	68	155,060	155,060	100	0	0	29,790	19	
Lake Travis	69	1,144,100	652,590	57	-6,370	-1	-230,610	-20	
Canyon Lake	70	385,600	329,200	85	-530	0	-26,410	-7	
Coletto Creek Reservoir	71	35,060	31,580	90	-590	-2	6,910	20	
Medina Lake	72	254,000	90,600	36	-1,540	-1	-94,400	-37	
<b>TOTAL</b>		<b>1,973,820</b>	<b>1,259,030</b>	<b>64</b>	<b>-9,030</b>	<b>0</b>	<b>-314,720</b>	<b>-16</b>	
<b>UPPER COAST</b>									
Lake Houston	73	128,860	128,860	100	0	0	0	0	
Lake Texana	74	157,900	151,430	96	-4,620	-3	23,090	15	
<b>TOTAL</b>		<b>286,760</b>	<b>280,290</b>	<b>98</b>	<b>-4,620</b>	<b>-2</b>	<b>23,090</b>	<b>8</b>	
<b>SOUTHERN</b>									
Choke Canyon Reservoir	75	695,260	514,700	74	-3,900	-1	-91,300	-13	
Lake Corpus Christi	76	241,240	116,700	48	-1,300	-1	-11,200	-5	
Falcon Reservoir (Texas)	77	1,555,120	660,000	42	22,000	1	-239,000	-15	
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	1,116,000	42	39,000	1	-428,000	-16	
<b>TOTAL</b>		<b>2,491,620</b>	<b>1,291,400</b>	<b>52</b>	<b>16,800</b>	<b>1</b>	<b>-341,500</b>	<b>-14</b>	
<b>STATE TOTAL</b>		<b>34,470,430</b>	<b>26,870,470</b>	<b>78</b>	<b>-500,800</b>	<b>-1</b>	<b>-232,390</b>	<b>-0.67</b>	

Note:

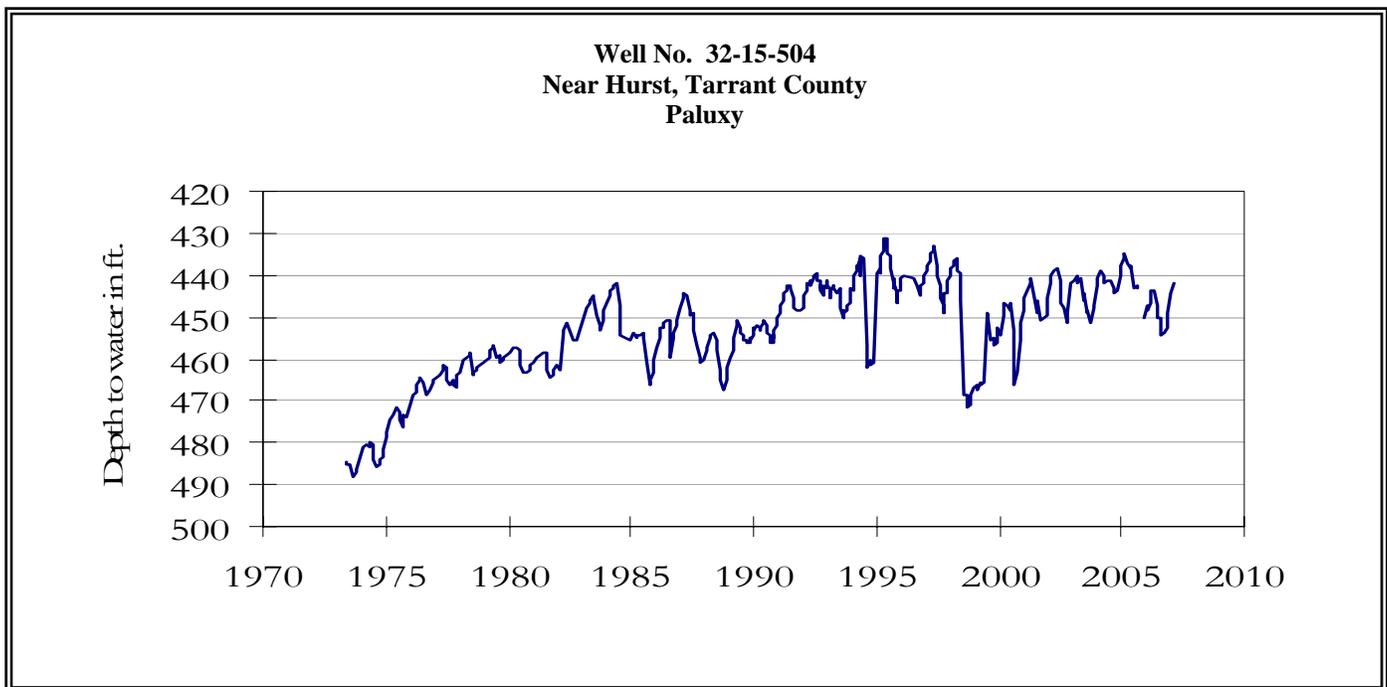
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included 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  $\% \text{ Change} = 100 * (\text{current conservation storage} - \text{past conservation storage}) / \text{conservation storage capacity}$ .

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). Preliminary figures are shown for the Texas' share of conservation storage in all reservoirs.

## FEBRUARY GROUND WATER LEVELS IN OBSERVATION WELLS

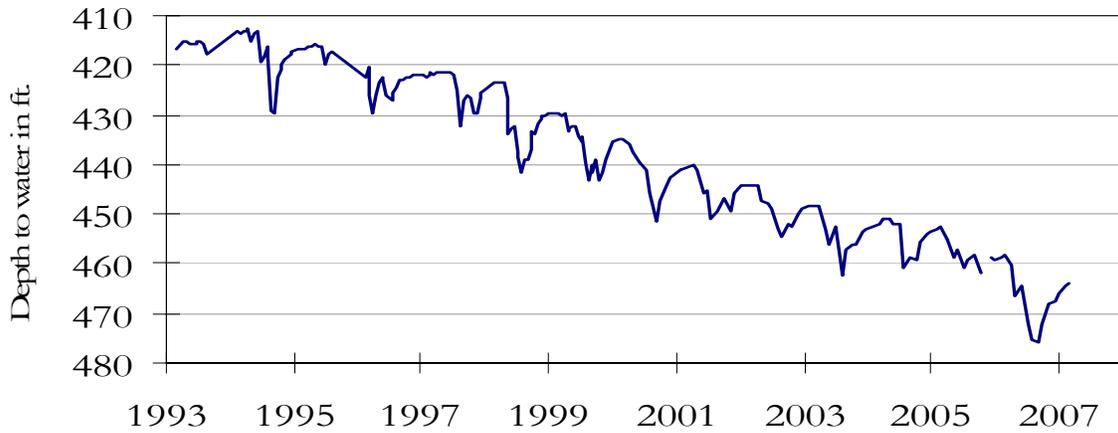


The late February water-level measurement in this Ogallala Aquifer well, elevation 3,816 feet above sea level, was 267.11 feet below land surface. This measurement was 0.04 feet below last month's measurement, 1.63 feet below last year's measurement, and 111.11 feet below the initial measurement recorded in 1968. No water level measurements were recorded for September through December 2005.



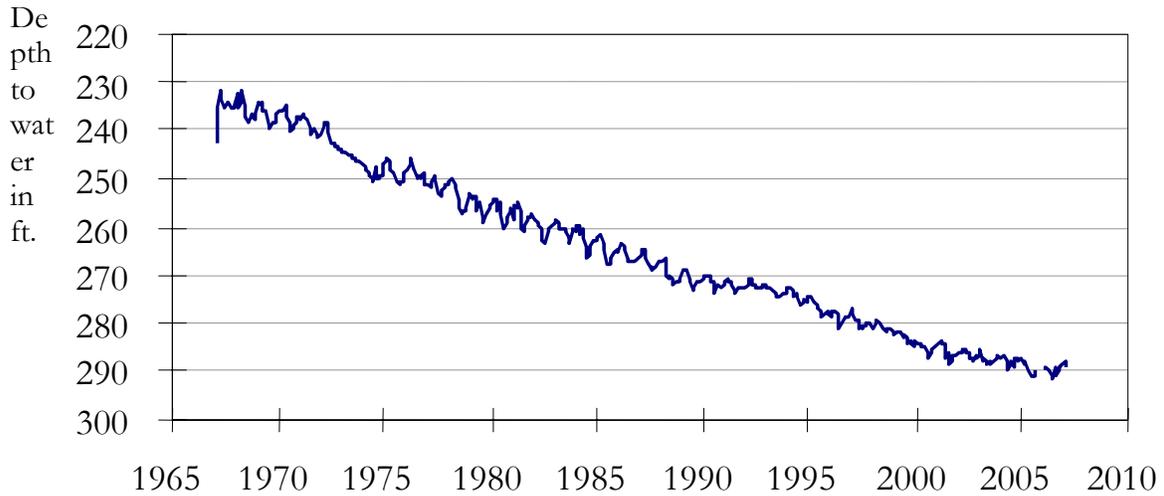
The late February water-level measurement in this Paluxy Formation Trinity Aquifer well, elevation 535 feet above sea level, was 441.80 feet below land surface. This measurement was 0.08 feet below last month's measurement, 5.10 feet above last year's measurement, and 63.80 feet below the initial measurement recorded in 1953. No water level measurements were recorded for September or October 2005.

**Well No. 40-35-404  
Gatesville, Coryell County  
Hosston/Trinity**



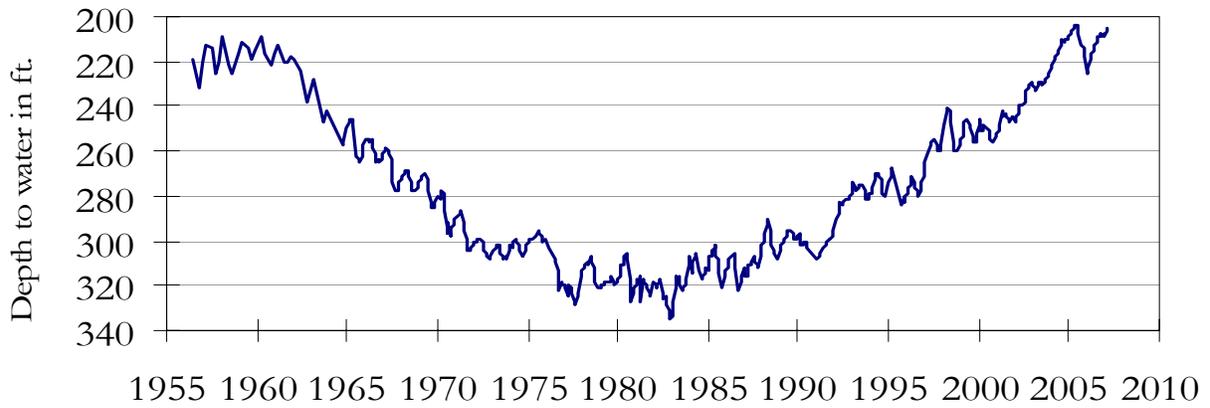
The late February water-level measurement in this Hosston Formation Trinity Aquifer well, elevation 823 feet above sea level, was 464.10 feet below land surface. This water level was 0.56 feet above last month's measurement, 5.79 feet below last year's measurement, and 172.10 feet below the initial measurement recorded in 1955. No water level measurement was recorded for October 2005.

**Well No. 49-13-301  
El Paso, El Paso County  
Bolson Deposits**



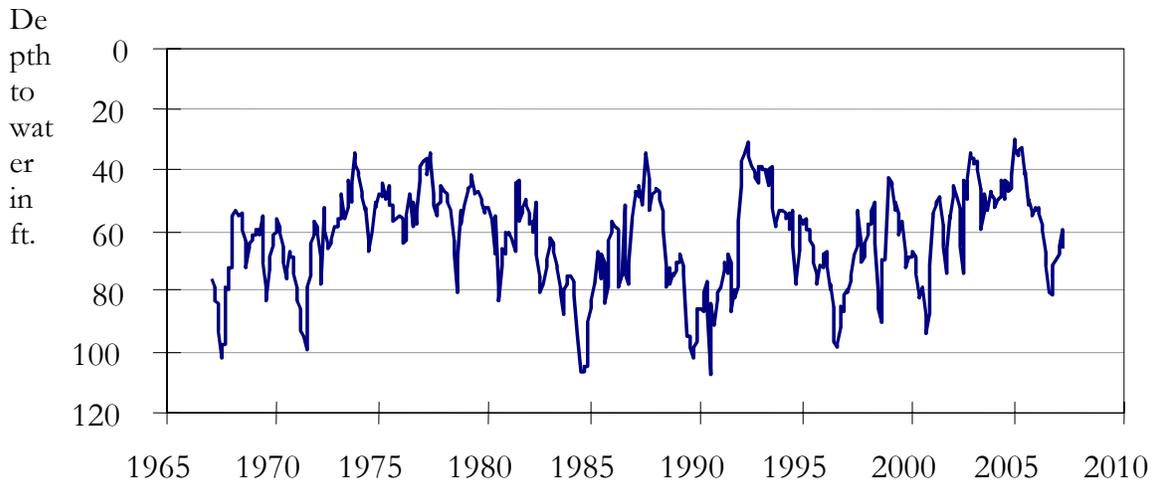
The late February water-level measurement in this Hueco Bolson Aquifer well, elevation 3,882 feet above sea level, was 289.25 feet below land surface. This was 1.15 feet below last month's measurement, 0.15 feet above last year's measurement, and 57.35 feet below the initial measurement in 1964. No water level measurements were recorded for October or December 2005.

**Well No. 65-14-409  
Alief, Harris County  
Evangeline**



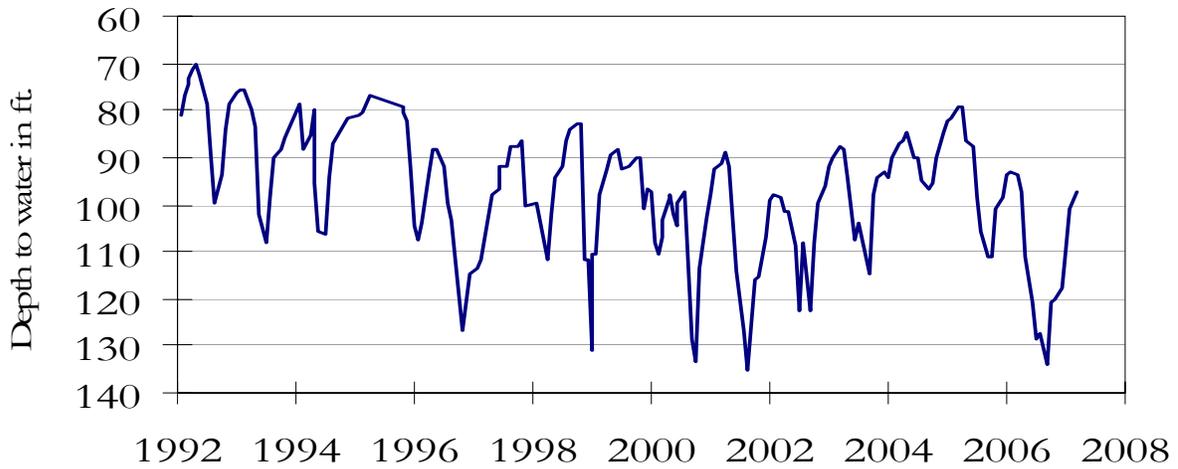
The late February water-level measurement in this Evangeline Formation Gulf Coast Aquifer well, elevation 66 feet above sea level, was 205.52 feet below land surface. This was 1.47 feet above last month's measurement, 13.79 feet above last year's measurement, and 70.02 feet below the initial measurement recorded in 1947.

**Well No. 68-37-203 (J-17)  
In San Antonio, Bexar County  
Edwards and Associated Limestones**



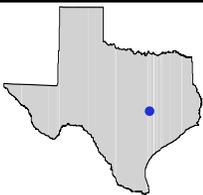
The late February water-level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above sea level, was 65.70 feet below land surface. This was 6.20 feet below last month's measurement, 8.18 feet below last year's measurement, and 19.06 feet below the initial measurement recorded in 1962.

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



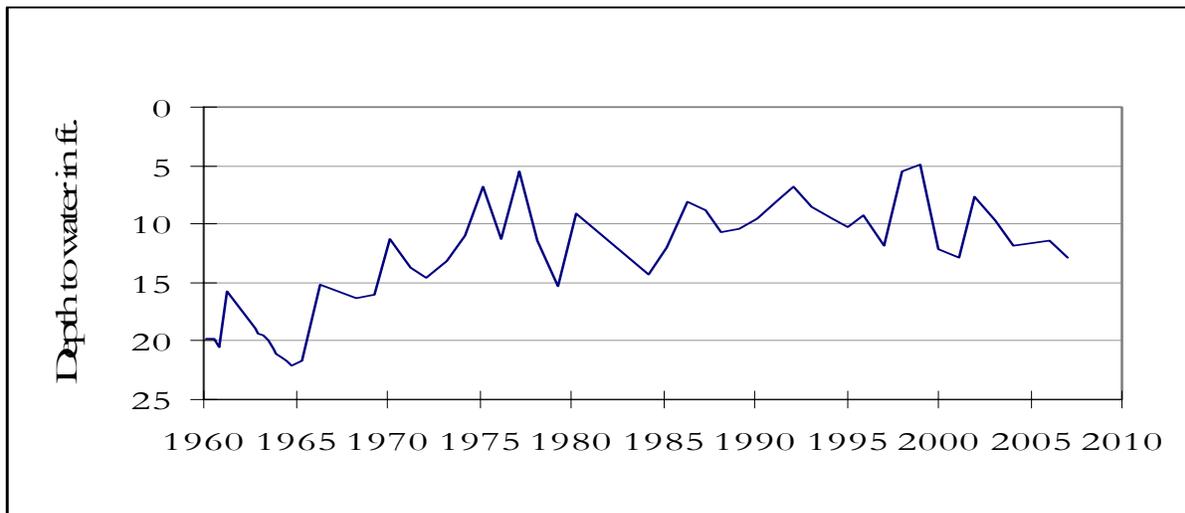
The late February water-level measurement in this Carrizo Aquifer well, elevation 446 feet above sea level, was 97.05 feet below land surface. This measurement was 3.74 feet above last month's measurement, 3.64 feet below last year's measurement, and 61.69 feet below the initial measurement recorded 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. 39-49-301  
Falls County**



This water level observation well, located 5 miles south of Marlin, at an elevation of 333 feet ASL, was completed in the Brazos River Alluvium Aquifer. No significant water level declines have occurred within this aquifer.

February, 2007

Water level measurements were available for all seven key monitoring wells. Water levels declined in four of the monitoring wells since the beginning of February, ranging from 0.04 feet in the Castro Co. Ogallala well to 6.20 feet in the Bexar Co. Edwards well. Water levels rose in the remaining monitoring wells, ranging from 0.56 feet in the Coryell Co. Hosston well to 3.74 feet in the Atascosa Co. Carrizo well. The J-17 well recorded a water level of 65.70 feet below land surface. This water level is 14.30 feet above the Stage 1 critical management level.

*TEXAS WATER DEVELOPMENT BOARD*

*1700 N. CONGRESS AVE.*

*P.O. BOX 13231*

*AUSTIN TX 78711-3231*