

Texas Water Development Board



WATER
Conditions

RESERVOIR STORAGE

September 2008

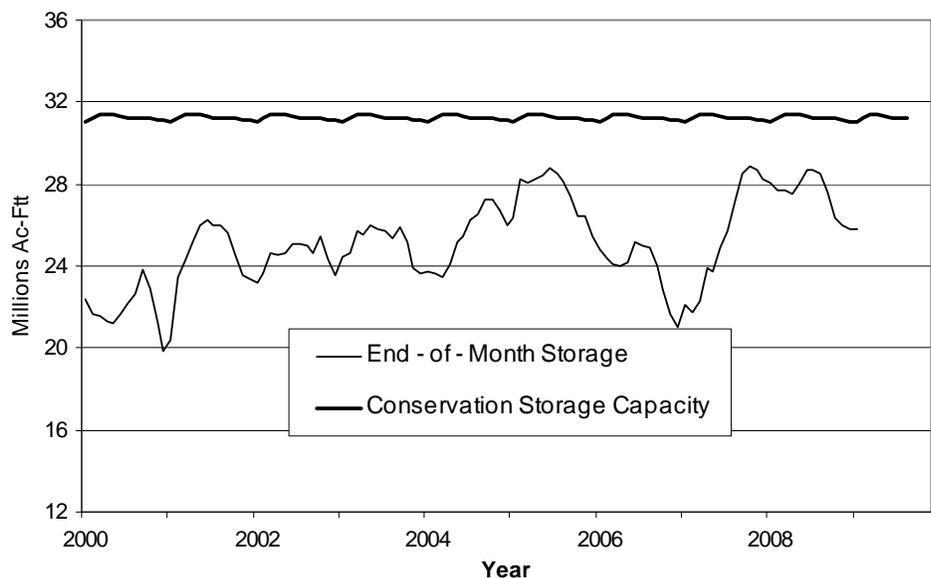
Near the end of September, the 109 reservoirs monitored for this report were 83 percent full*, on average, holding 25.76 million acre-feet in conservation storage, about 0.26 million acre-feet less than August and 2.46 million acre-feet less than September of 2007.

Storage was at 100% in 9 reservoirs. The Upper Coast is the only region having storage at or above 90% of capacity; the High Plains (10%) and Trans-Pecos Regions (21%) remained very low. Three lakes were below 10% full: O C Fisher Lake was still effectively empty, Palo Duro (1%) was almost empty, and Lake Meredith stayed at approximately 7% of storage.

Over the past month, storage increased in four regions and decreased in the remaining five. Compared to this time last year, storage decreased in all nine regions.

* Only the Texas share of storage in border reservoirs is counted.

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS



* Figures are based on end of the month data at 109 major reservoirs that represent 95 percent of the total conservation storage capacity of the 175 major water supply reservoirs in Texas. By definition, a major reservoir has a conservation storage capacity of 5,000 acre-feet or greater.

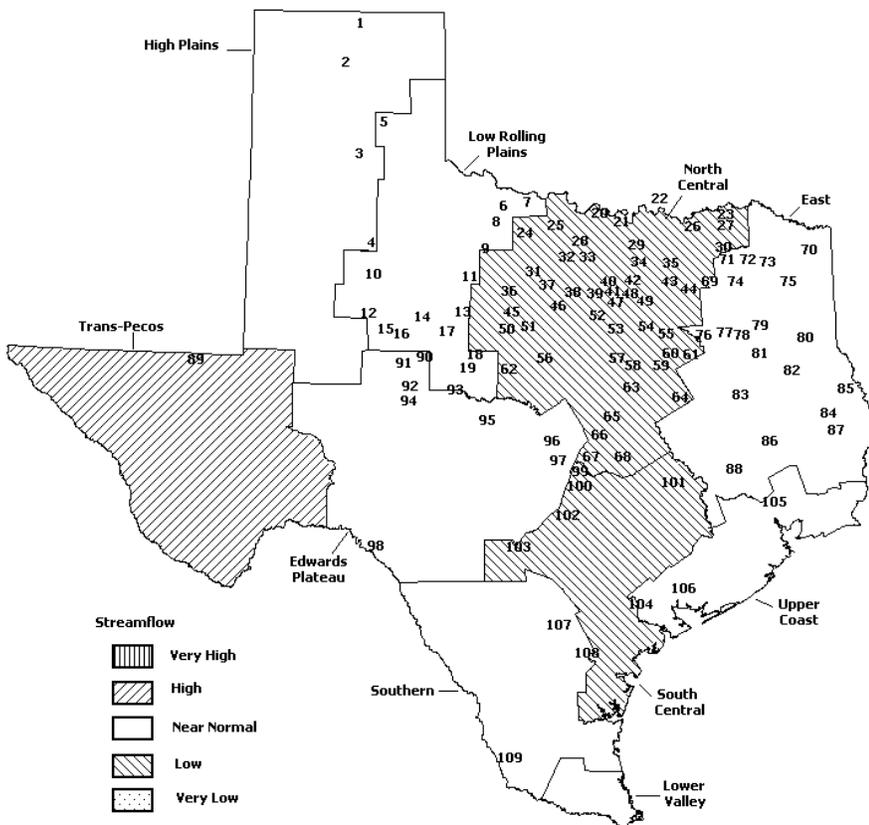
STREAMFLOW

Of 29 reporting index stations in September, computed 30-day mean flows were very high (<5%) at 1 station, high (5% - 30%) at 5 stations, low (70% - 95%) at 7 stations, very low (>95%) at 1 station, and near normal (30% - 70%) at the remaining 15 stations. Compared to August, flows increased at 12 index stations, decreased at 15 stations, and were unchanged at 2 stations.

On a regional basis, flows in September were high in the Trans-Pecos Region, low in North Central and South Central Regions, and normal in all other regions. Streamflow in the Lower Valley Region is not monitored.

SEPTEMBER STREAMFLOW CONDITIONS

Reservoirs Shown on Map



1. Palo Duro Reservoir
2. Meredith, Lake
3. MacKenzie Reservoir
4. White River Lake
5. Greenbelt Lake
6. Electra, Lake
7. N. Fork Buffalo Creek Reservoir
8. Kemp, Lake
9. Miller's Creek Reservoir
10. Alan Henry Reservoir
11. Stamford, Lake
12. Lake J. B. Thomas
13. Fort Phantom Hill, Lake
14. Sweetwater, Lake
15. Colorado City, Lake
16. Champion Creek Reservoir
17. Abilene, Lake
18. Coleman, Lake
19. Hords Creek Lake
20. Farmers Creek Reservoir
21. Hubert H Moss Lake
22. Texoma, Lake
23. Pat Mayse Lake
24. Lake Kickapoo
25. Lake Arrowhead
26. Bonham, Lake
27. Crook, Lake
28. Amon G Carter, Lake
29. Ray Roberts, Lake
30. Jim Chapman Lake
31. Graham, Lake
32. Lost Creek Reservoir
33. Bridgeport Reservoir
34. Lewisville Lake
35. Lavon Lake
36. Hubbard Creek Reservoir
37. Possum Kingdom Lake
38. Mineral Wells, Lake
39. Weatherford, Lake
40. Eagle Mountain Lake
41. Worth, Lake
42. Grapevine Lake
43. Lake Ray Hubbard
44. New Terrell City Lake
45. Daniel, Lake
46. Palo Pinto, Lake
47. Benbrook Lake
48. Arlington, Lake
49. Joe Pool Lake
50. Cisco, Lake
51. Leon, Lake
52. Lake Granbury
53. Pat Cleburne, Lake
54. Waxahacie, Lake
55. Bardwell Lake
56. Proctor Lake
57. Whitney Lake
58. Aquilla Lake
59. Navarro Mills Lake
60. Halbert, Lake
61. Richland-Chambers Reservoir
62. Lake Brownwood
63. Waco Lake
64. Limestone, Lake
65. Belton Lake
66. Stillhouse Hollow Lake
67. Georgetown, Lake
68. Granger Lake
69. Tawakoni, Lake
70. Wright Patman Lake
71. Sulphur Springs, Lake
72. Cypress Springs, Lake
73. Bob Sandlin, Lake
74. Fork Reservoir, Lake
75. O' the Pines, Lake
76. Cedar Creek Reservoir Trinity
77. Athens, Lake
78. Palestine, Lake
79. Tyler, Lake
80. Murvaul, Lake
81. Jacksonville, Lake
82. Nacogdoches, Lake
83. Houston County Lake
84. Sam Rayburn Reservoir
85. Toledo Bend Reservoir
86. Livingston, Lake
87. B. A. Steinhagen Lake
88. Conroe, Lake
89. Red Bluff Reservoir
90. Oak Creek Reservoir
91. E. V. Spence Reservoir
92. O. C. Fisher Lake
93. O. H. Ivie Reservoir
94. Twin Buttes Reservoir
95. Vradly Creek Reservoir
96. Buchanan, Lake
97. Lyndon B Johnson, Lake
98. Amistad Reservoir, Intl.
99. Travis, Lake
100. Austin, Lake
101. Somerville Lake
102. Canyon Lake
103. Medina Lake
104. Coletto Creek Reservoir
105. Lake Houston
106. Texana, Lake
107. Choke Canyon Reservoir
108. Lake Corpus Christi
109. Falcon Reservoir, Intl.

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage		Conservation Storage		Change since Late August		Change since Late September	
		Capacity (acre-feet)	Late Sep. (acre-feet)	2008 (%)	Late August 2008 (acre-feet)	(%)	Late September 2007 (acre-feet)	(%)	
HIGH PLAINS									
Palo Duro Reservoir	1	60,897	794	1	-309	-1	-462	-1	
Meredith, Lake (Texas)	2	500,000	50,684	10	-1,876	0	-10,366	-2	
Meredith, Lake (Texas & Oklahoma)	(2)	779,556	50,684	7	-1,876	0	-10,366	-1	
MacKenzie Reservoir	3	46,429	6,197	13	-112	0	-1,680	-4	
White River Lake	4	29,880	6,748	23	6,356	21	4,484	15	
TOTAL		637,206	64,423	10	4,059	1	-8,024	-1	
LOW ROLLING PLAINS									
Greenbelt Lake	5	59,500	18,714	31	-605	-1	-3,751	-6	
*Electra, Lake	6	5,626	1,154	21	-51	-1	-887	-16	
N. Fork Buffalo Crk Reservoir	7	15,400	4,597	30	-232	-2	-1,021	-7	
Kemp, Lake	8	245,308	187,552	76	-7,900	-3	-57,756	-24	
Millers Creek Reservoir	9	27,888	18,185	65	-312	-1	-7,614	-27	
Alan Henry Reservoir	10	94,808	94,808	100	538	1	161	0	
Stamford, Lake	11	51,570	40,003	78	1,204	2	-11,567	-22	
J B Thomas, Lake	12	199,931	21,593	11	6,479	3	-10,563	-5	
Fort Phantom Hill, Lake	13	70,030	67,603	97	347	0	-2,427	-3	
Sweetwater, Lake	14	10,006	8,206	82	-253	-3	905	9	
Colorado City, Lake	15	31,793	22,981	72	-132	0	-5,802	-18	
Champion Creek Reservoir	16	41,618	9,328	22	-240	-1	-415	-1	
Abilene, Lake	17	6,099	4,588	75	-287	-5	-1,505	-25	
Coleman, Lake	18	38,076	30,183	79	-883	-2	-6,795	-18	
Hords Creek Lake	19	5,684	3,346	59	-164	-3	-2,053	-36	
TOTAL		903,337	532,841	59	-2,491	0	-111,088	-12	
NORTH CENTRAL									
Nocona, Lake (Farmers Crk)	20	21,445	18,750	87	-317	-1	-1,912	-9	
Hubert H Moss Lake	21	24,058	22,166	92	-417	-2	-984	-4	
Texoma, Lake (Texas)	22	1,239,693	1,229,747	99	-19,156	-2	-19,156	-2	
Texoma, Lake (Texas & Oklahoma)	(22)	2,479,387	2,459,494	99	-38,312	-2	-38,312	-2	
*Pat Mayse Lake	23	118,100	111,986	95	-227	0	-5,354	-5	
Kickapoo, Lake	24	85,825	44,422	52	-2,218	-3	-25,956	-30	
Arrowhead, Lake	25	235,997	172,359	73	-3,792	-2	-51,762	-22	
Bonham, Lake	26	11,026	9,348	85	-335	-3	-1,010	-9	
Crook, Lake	27	9,195	8,998	98	568	6	361	4	
Amon G Carter, Lake	28	19,903	17,698	89	174	1	-1,958	-10	
Ray Roberts, Lake	29	798,758	767,664	96	-13,680	-2	-31,094	-4	
Jim Chapman Lake (Cooper)	30	260,332	206,053	79	-13,390	-5	-88,878	-34	
Graham, Lake	31	45,260	43,259	96	1,104	2	486	1	
*Lost Creek Reservoir	32	11,950	10,939	92	-130	-1	-876	-7	
Bridgeport, Lake	33	366,236	309,700	85	-10,917	-3	-46,576	-13	
Lewisville Lake	34	543,988	451,286	83	-22,943	-4	-92,702	-17	
Lavon Lake	35	443,844	365,066	82	-10,391	-2	-42,727	-10	
Hubbard Creek Reservoir	36	318,067	276,589	87	-6,577	-2	-22,881	-7	
Possum Kingdom Lake	37	540,340	507,505	94	19,690	4	-8,750	-2	
*Mineral Wells, Lake	38	7,065	5,555	79	-235	-3	-1,019	-14	
Weatherford, Lake	39	18,645	13,932	75	-923	-5	-3,412	-18	
Eagle Mountain Lake	40	182,500	154,946	85	-6,491	-4	-17,316	-9	
Worth, Lake	41	24,500	18,306	75	-1,656	-7	-3,937	-16	
Grapevine Lake	42	164,702	134,539	82	-7,914	-5	-30,163	-18	
Ray Hubbard, Lake	43	452,040	437,611	97	0	0	-7,817	-2	
New Terrell City Lake	44	8,583	7,913	92	50	1	-670	-8	
Daniel, Lake	45	9,435	7,515	80	-377	-4	-1,866	-20	
Palo Pinto, Lake	46	27,150	18,563	68	-1,372	-5	-6,816	-25	
Benbrook Lake	47	85,648	59,672	70	-3,041	-4	-21,272	-25	
Arlington, Lake	48	38,740	26,753	69	-1,689	-4	-9,060	-23	

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 August 2008		Change since Late September 2007		
			Late Sep. (acre-feet)	2008 (%)	(acre-feet)	(%)	(acre-feet)	(%)	
NORTH CENTRAL (Continue)									
Joe Pool Lake	49	142,861	128,785	90	-3,888	-3	-9,427	-7	
*Cisco, Lake	50	26,000	20,497	79	-533	-2	-1,805	-7	
Leon, Lake	51	26,421	22,939	87	-969	-4	-3,358	-13	
Granbury, Lake	52	128,046	109,638	86	-4,790	-4	-14,935	-12	
Pat Cleburne, Lake	53	25,730	20,893	81	-968	-4	-4,618	-18	
Waxahachie, Lake	54	10,779	9,272	86	-18	0	-528	-5	
Bardwell Lake	55	46,122	39,431	85	-1,880	-4	-6,691	-15	
Proctor Lake	56	55,457	40,159	72	-1,670	-3	-15,298	-28	
Whitney, Lake	57	553,349	404,738	73	-14,818	-3	-98,312	-18	
Aquilla Lake	58	45,092	37,196	82	-810	-2	-7,896	-18	
Navarro Mills Lake	59	55,817	46,802	84	-2,083	-4	-7,963	-14	
*Halbert, Lake	60	6,033	4,046	67	-303	-5	-1,035	-17	
Richland-Chambers Reservoir	61	1,103,816	995,417	90	-24,583	-2	-97,302	-9	
*Brownwood, Lake	62	131,429	111,237	85	3,818	3	-18,264	-14	
Waco, Lake	62	198,943	179,156	90	-6,982	-4	-19,787	-10	
Limestone, Lake	64	208,015	195,461	94	-5,113	-2	-1,211	-1	
Belton Lake	65	435,225	424,385	98	-10,840	-2	-10,840	-2	
Stillhouse Hollow Lake	66	227,771	216,382	95	-1,313	-1	-11,389	-5	
Georgetown, Lake	67	36,823	17,193	47	-1,858	-5	-19,630	-53	
Granger Lake	68	52,525	43,175	82	-2,522	-5	-9,350	-18	
Tawakoni, Lake	69	888,126	793,523	89	-25,967	-3	-59,894	-7	
TOTAL		10,517,405	9,319,165	89	-214,692	-2	-964,607	-9	
EAST									
Wright Patman Lake	70	248,069	248,069	100	-14,261	-6	9,768	4	
*Sulphur Springs, Lake	71	17,838	15,077	85	-1,758	-10	-2,378	-13	
Cypress Springs, Lake	72	67,689	67,689	100	0	0	207	0	
Bob Sandlin, Lake	73	200,579	199,040	99	2,352	1	90	0	
Fork Reservoir, Lake	74	604,927	593,839	98	-6,336	-1	-11,088	-2	
O the Pines, Lake	75	238,933	238,933	100	-28,739	-12	0	0	
Cedar Creek Reservoir in Trinity	76	644,686	588,246	91	-13,079	-2	-44,866	-7	
Athens, Lake	77	29,435	27,946	95	107	0	-1,453	-5	
Palestine, Lake	78	370,907	370,907	100	0	0	11,084	3	
Tyler, Lake	79	73,256	73,256	100	377	1	2,939	4	
Murvaul, Lake	80	38,284	36,525	95	100	0	1,601	4	
Jacksonville, Lake	81	30,300	28,842	95	-121	0	-1,458	-5	
Nacogdoches, Lake	82	39,521	36,810	93	-82	0	-144	0	
Houston County Lake	83	17,113	17,113	100	0	0	178	1	
Sam Rayburn Reservoir	84	2,857,077	2,222,682	78	-169,862	-6	-255,320	-9	
Toledo Bend Reservoir (Texas)	85	2,236,450	1,885,189	84	-17,929	-1	-9,685	0	
Toledo Bend Reservoir (TX & LA)	(85)	4,472,900	3,770,378	84	-35,859	-1	-19,370	0	
*Livingston, Lake	86	1,741,867	1,737,000	100	-4,867	0	-4,867	0	
B A Steinhagen Lake	87	66,966	55,750	83	2,272	3	-5,269	-8	
Conroe, Lake	88	416,188	391,489	94	-6,964	-2	-11,642	-3	
TOTAL		9,940,085	8,834,402	89	-258,790	-3	-322,304	-3	
TRANS-PECOS									
Red Bluff Reservoir	89	289,670	61,227	21	-1,524	-1	-26,999	-9	
TOTAL		289,670	61,227	21	-1,524	-1	-26,999	-9	

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

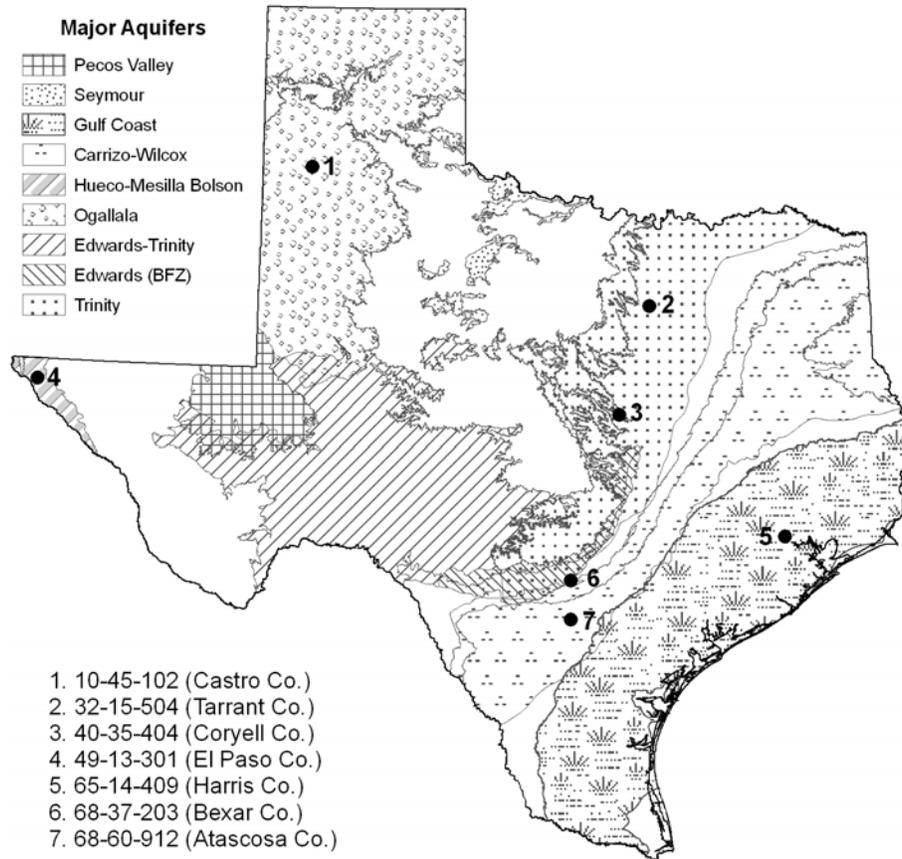
Name of Lake or Reservoir	No. on Map	Conservation		Change since		Change since		
		Storage Capacity (acre-feet)	Storage Late Sep. (acre-feet)	2008 (%)	Late August 2008 (acre-feet) (%)	Late September 2007 (acre-feet) (%)		
EDWARDS PLATEAU								
Oak Creek Reservoir	90	39,260	32,639	83	-733	-2	-6,552	-17
E V Spence Reservoir	91	517,272	60,945	12	-3,057	-1	-21,922	-4
O C Fisher Lake	92	79,483	0	0	0	0	0	0
*O H Ivie Reservoir	93	554,335	326,666	59	-8,906	-2	-54,797	-10
Twin Buttes Reservoir	94	177,850	50,886	29	-1,011	-1	-13,692	-8
Brady Creek Reservoir	95	29,110	15,953	55	-955	-3	-956	-3
Buchanan, Lake	96	824,519	644,552	78	-60,848	-7	-187,988	-23
Lyndon B Johnson, Lake	97	113,690	111,568	98	-386	0	-1,094	-1
*Amistad Reservoir (Texas)	98	1,840,849	2,239,000	122	133,000	7	225,000	12
*Amistad Reservoir (TX & Mexico)	(98)	3,275,532	2,797,000	85	503,000	15	44,000	1
TOTAL		4,176,368	3,482,209	83	57,104	1	-62,001	-1
SOUTH CENTRAL								
Travis, Lake	99	1,113,902	743,940	67	-40,005	-4	-369,962	-33
*Austin, Lake	100	21,804	20,775	95	-15	0	-31	0
Somerville Lake	101	147,104	124,993	85	-4,925	-3	-19,337	-13
Canyon Lake	102	378,781	309,761	82	-16,400	-4	-69,020	-18
Medina Lake	103	254,823	169,239	66	-10,186	-4	-85,584	-34
*Coletto Creek Reservoir	104	31,040	23,415	75	-907	-3	-7,625	-25
TOTAL		1,947,454	1,392,123	71	-72,438	-4	-551,559	-28
UPPER COAST								
Houston, Lake	105	128,863	128,863	100	0	0	2,290	2
Texana, Lake	106	153,246	132,530	86	16,517	11	-14,025	-9
TOTAL		282,109	261,393	93	16,517	6	-11,735	-4
SOUTHERN								
Choke Canyon Reservoir	107	695,262	601,309	86	-16,427	-2	-90,334	-13
Corpus Christi, Lake	108	256,961	199,668	78	-8,381	-3	-57,293	-22
*Falcon Reservoir (Texas)	109	1,551,034	1,015,000	65	234,000	15	-252,000	-16
*Falcon Reservoir (TX & Mexico)	(109)	2,646,817	1,403,000	53	435,000	16	-363,000	-14
TOTAL		2,503,257	1,815,977	73	209,192	8	-399,627	-16
STATE TOTAL		31,196,891	25,763,760	83	-263,063	-1	-2,457,944	-8

* Conservation volume is used as conservation storage capacity because the dead storage is unknown.

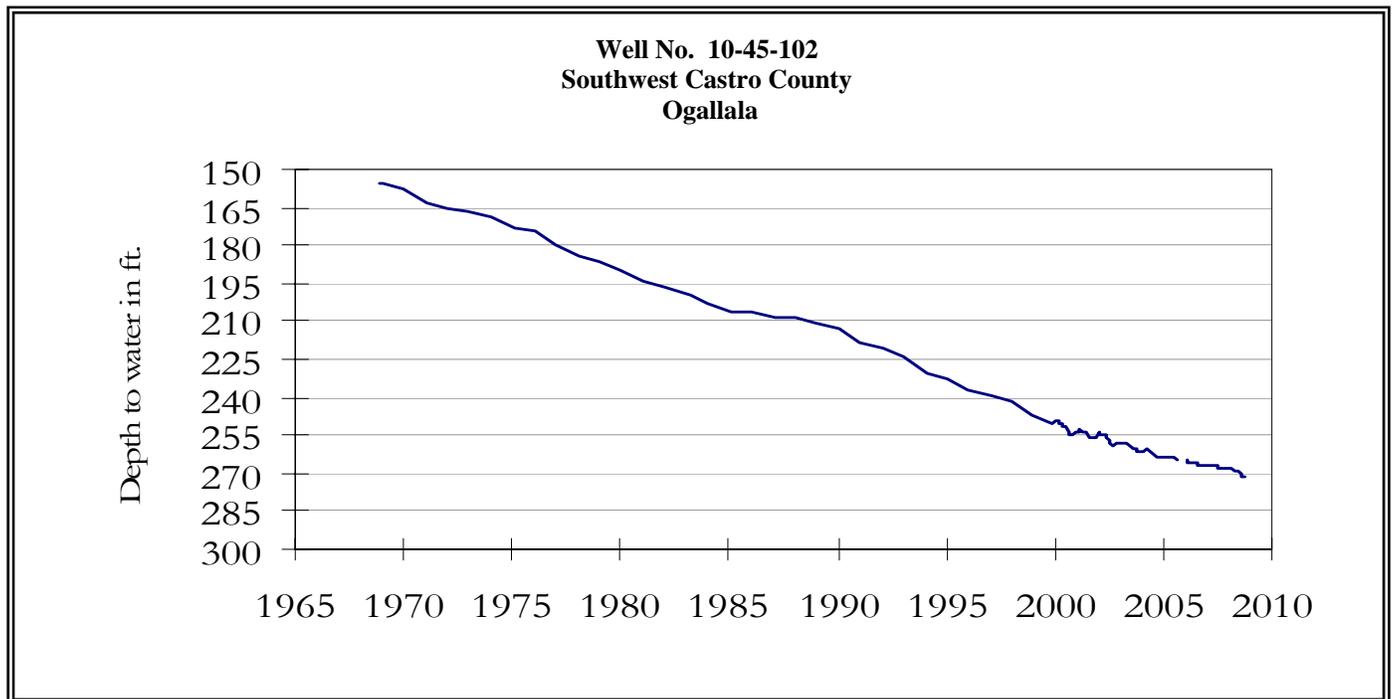
Note

Conservation storage capacity is the space available to store water above the lowest outlet and below the 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 the dead storage. Conservation storage percentage is based on the conservation storage capacity of the reservoir and the conservation storage in the reservoir on date shown. Percent change is given by $100 * (\text{current conservation storage} - \text{past conservation storage}) / \text{conservation storage capacity}$. Figures shown are for the Texas share of conservation storage in all reservoirs.

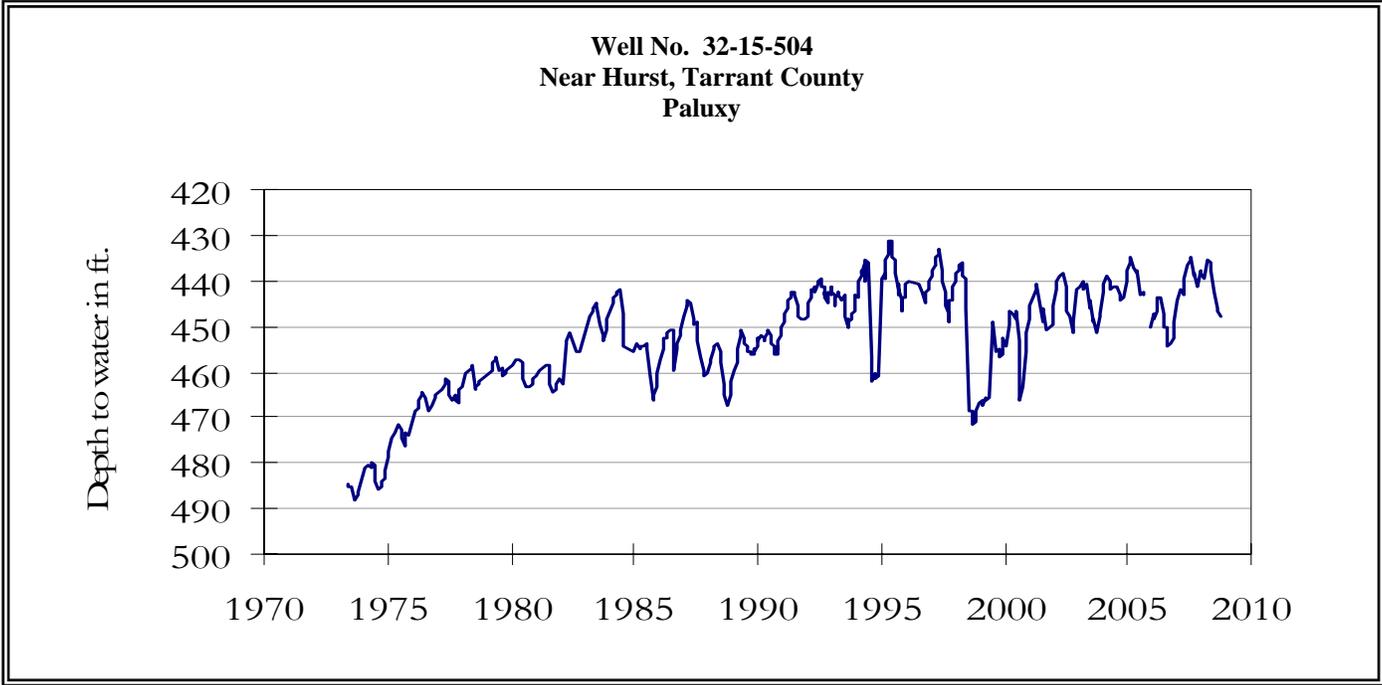
GROUND WATER LEVELS IN OBSERVATION WELLS



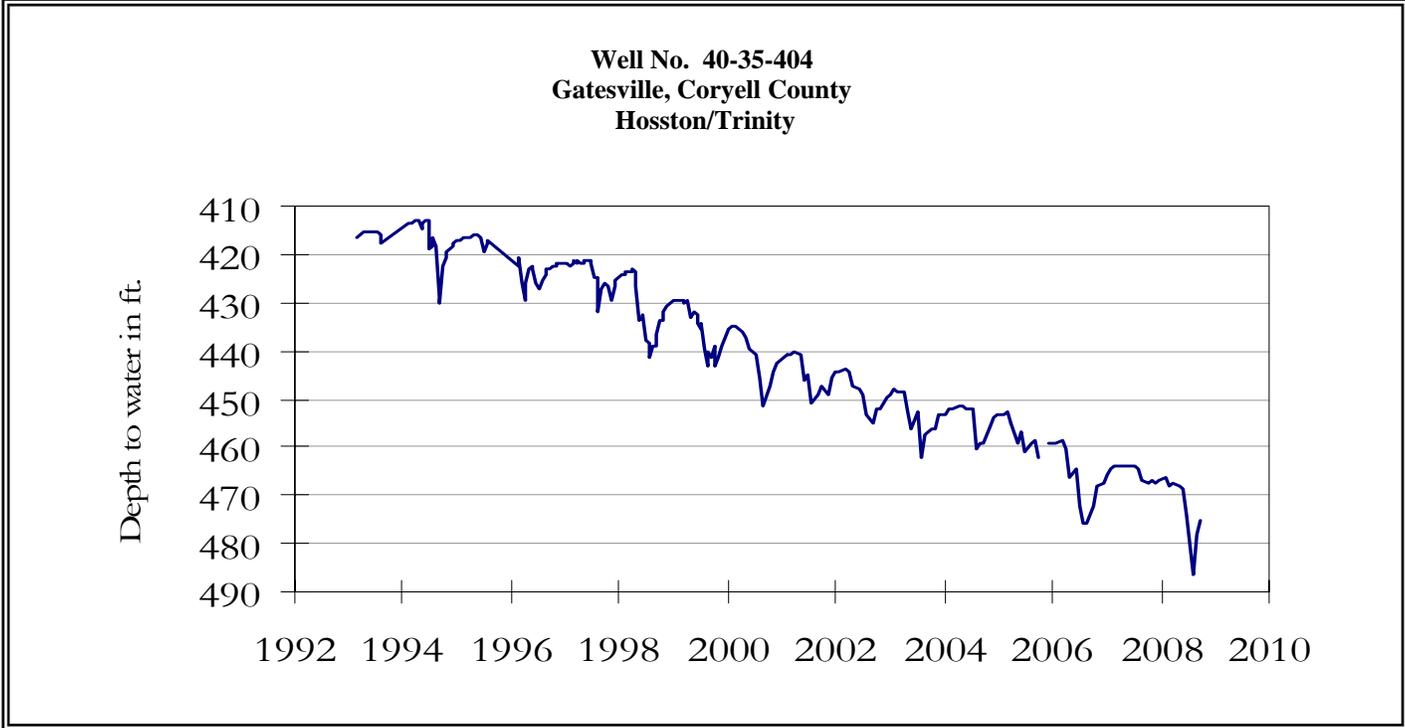
SEPTEMBER GROUND WATER LEVELS IN OBSERVATION WELLS



The late September water-level measurement in this Ogallala Aquifer well, elevation 3,816 feet above sea level, was 271.81 feet below land surface. This measurement was 0.65 feet below last month's measurement, 3.81 feet below last year's measurement, and 115.81 feet below the initial measurement recorded in 1968. No water level measurements were recorded for September through December 2005.

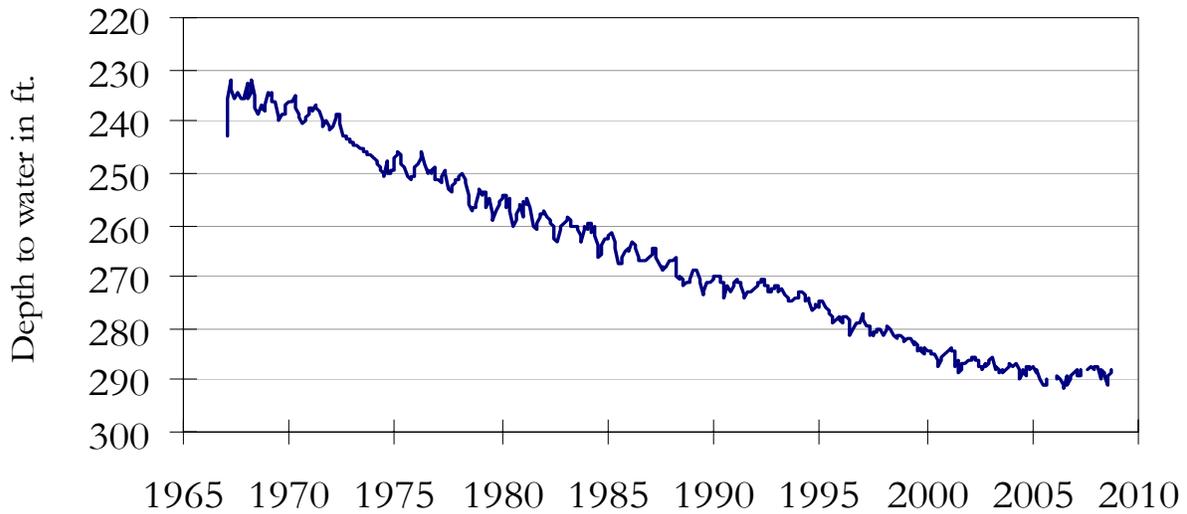


The late September water-level measurement in this Paluxy Formation Trinity Aquifer well, elevation 535 feet above sea level, was 447.69 feet below land surface. This measurement was 1.28 feet below last month's measurement, 9.55 feet below last year's measurement, and 69.69 feet below the initial measurement recorded in 1953. No water level measurements were recorded for September or October 2005.



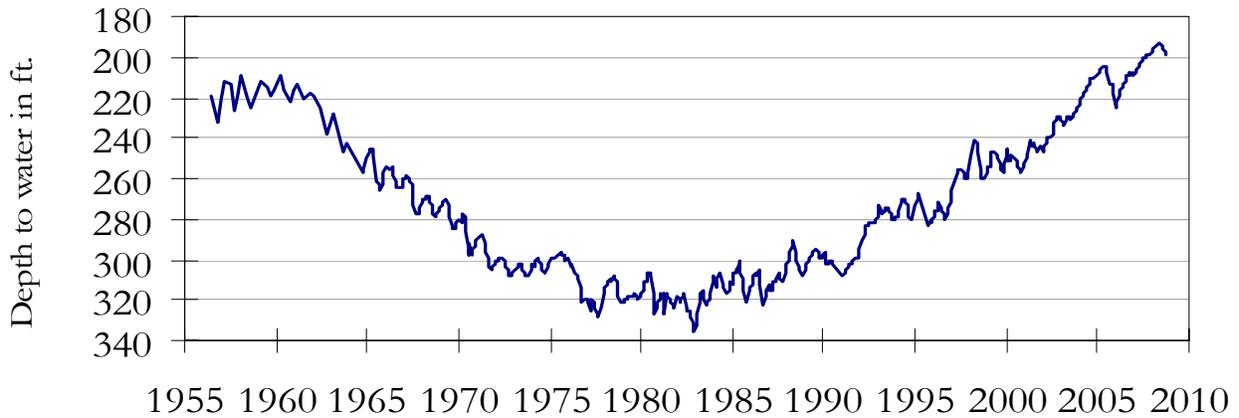
The late September water-level measurement in this Hosston Formation Trinity Aquifer well, elevation 823 feet above sea level, was 475.17 feet below land surface. This water level was 2.97 feet above last month's measurement, 7.91 feet below last year's measurement, and 183.17 feet below the initial 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**



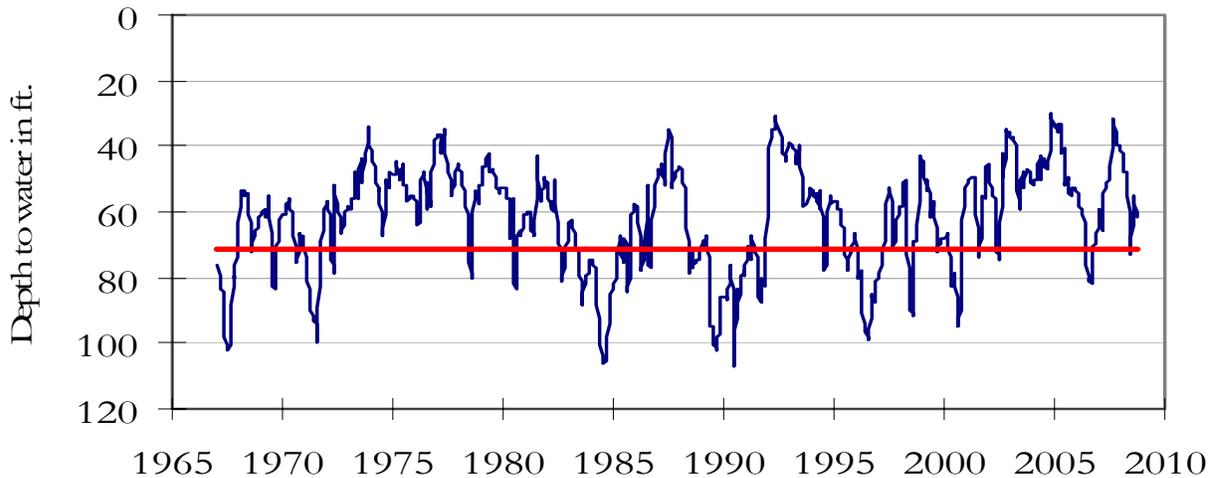
The late September water-level measurement in this Hueco Bolson Aquifer well, elevation 3,882 feet above sea level, was 288.13 feet below land surface. This water level was 0.42 feet above last month's measurement, 0.66 feet below last year's measurement, and 56.23 feet below the initial measurement in 1964. No water level measurements were recorded for May through July 2007, and October or December 2005.

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



The late September water-level measurement in this Evangeline Formation Gulf Coast Aquifer well, elevation 66 feet above sea level, was 198.90 feet below land surface. This was 0.95 feet below last month's measurement, 0.25 feet below last year's measurement, and 63.40 feet below the initial measurement recorded in 1947.

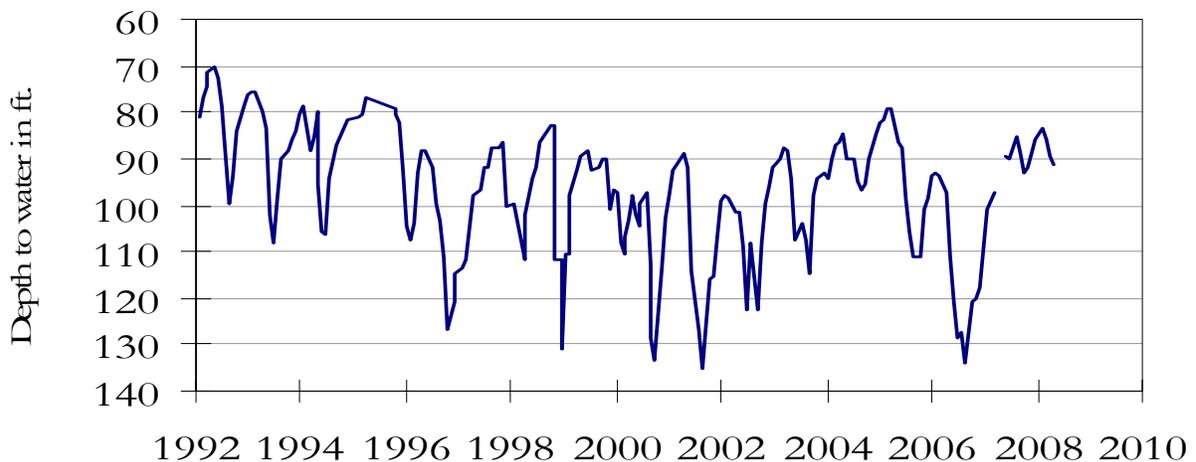
**Well No. 68-37-203 (J-17)
In San Antonio, Bexar County
Edwards and Associated Limestones**



The late September water-level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above sea level, was 62.00 feet below land surface. This was 6.69 feet below last month's measurement, 26.60 feet below last year's measurement, and 15.36 feet below the initial measurement recorded in 1962.

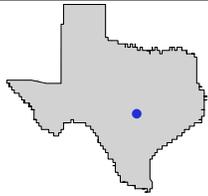
***** Water levels below the red line indicate Edwards Aquifer Authority Stage 1 drought restrictions. *****

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



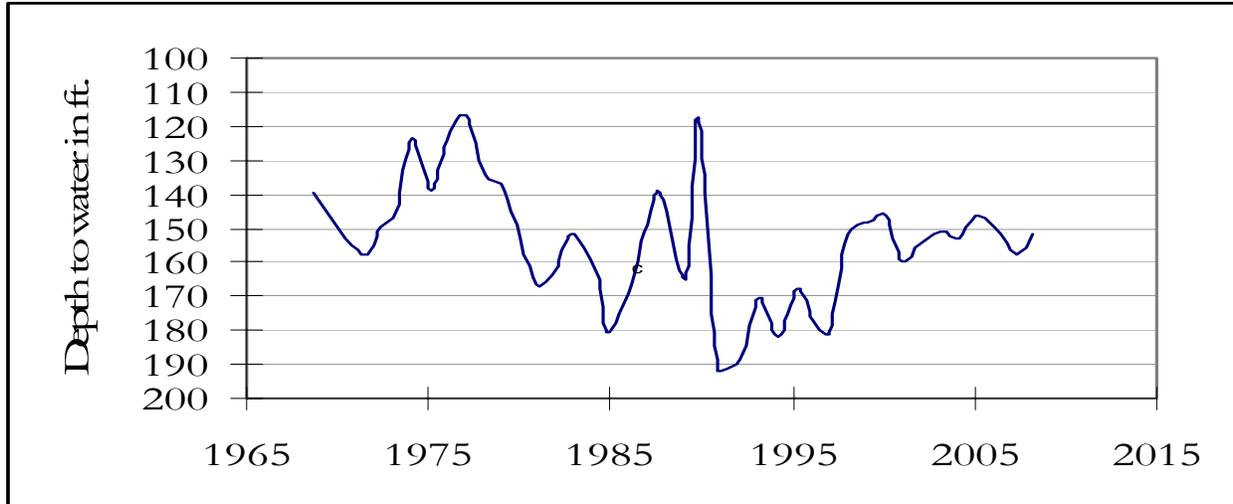
The TWDB has taken this recorder offline and is in the process of installing a new recorder in Atascosa County.

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 57-53-302 Blanco County



This water level observation well, located 2 miles south of Johnson City, at an elevation of 1330 feet ASL, was completed in the Ellenburger Aquifer. This aquifer is mainly used by local municipalities, and generally has not experienced significant water level declines

September, 2008

Water level measurements were available for six out of the seven key monitoring wells. Water levels rose in two of the reporting monitoring wells since the beginning of September, ranging from 0.42 feet in the El Paso Co. Hueco Bolson well to 2.97 feet in the Coryell Co. Trinity well. Water levels declined in the remaining monitoring wells, ranging from 0.65 feet in the Castro Co. Ogallala well to 6.69 feet in the Bexar Co. Edwards (BFZ) Well. The J-17 well in San Antonio recorded a water level of 62.00 feet below land surface, 6.69 feet below last month's measurement. This water level is 9.00 feet above the Stage 1 critical management level.

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