

Texas Water Development Board



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

RESERVOIR STORAGE

June 2009

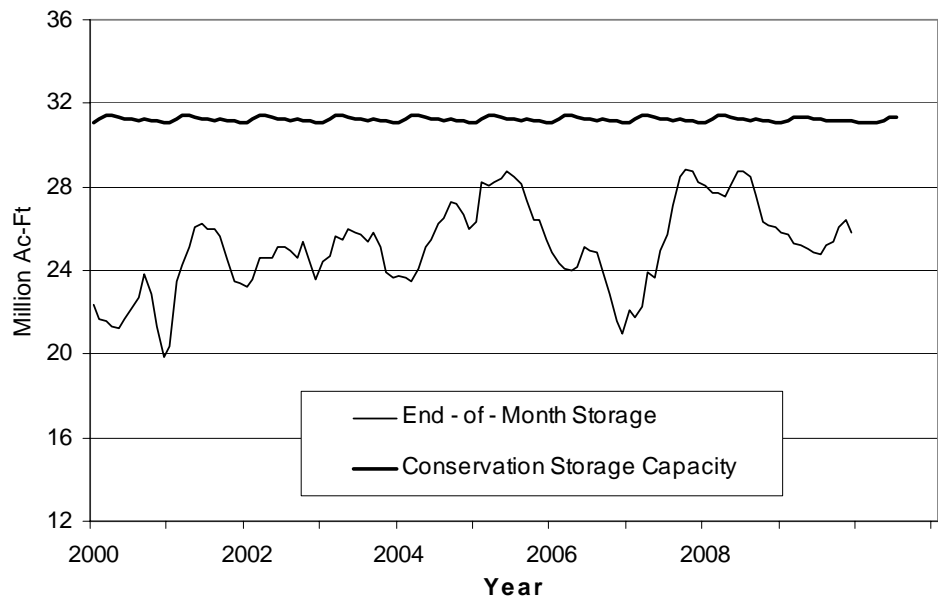
Storage in 109 state's major reservoirs, which comprise about 95% of the total conservation capacity of state's 175 major water supply reservoirs, declined in the past month by 2% to 25.8 million acre-feet* in conservation storage, or 82 percent of their combined conservation storage capacity. This is 645,000 acre-feet less than last month.

Storage was at 100% in 8 reservoirs (compared to 26 in the last month), mainly in the East and North Central regions. On the other hand, eleven lakes were below 30% full and five of which were below 10% full: O C Fisher Lake was still effectively empty, Palo Duro (2%) was nearly empty, Lake Meredith and J B Thomas were both at 6%, and E.V. Spence was at 8% full.

Both the East (96%) and North Central (90%) regions have storage at or above 90% of capacity; but the High Plains (9%) and Trans-Pecos regions (22%) remained very low. Storage decreased in all except the Low Rolling Plains region over the month. Since last year, storage increased in the Southern and High Plains regions, and decreased everywhere else.

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

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS



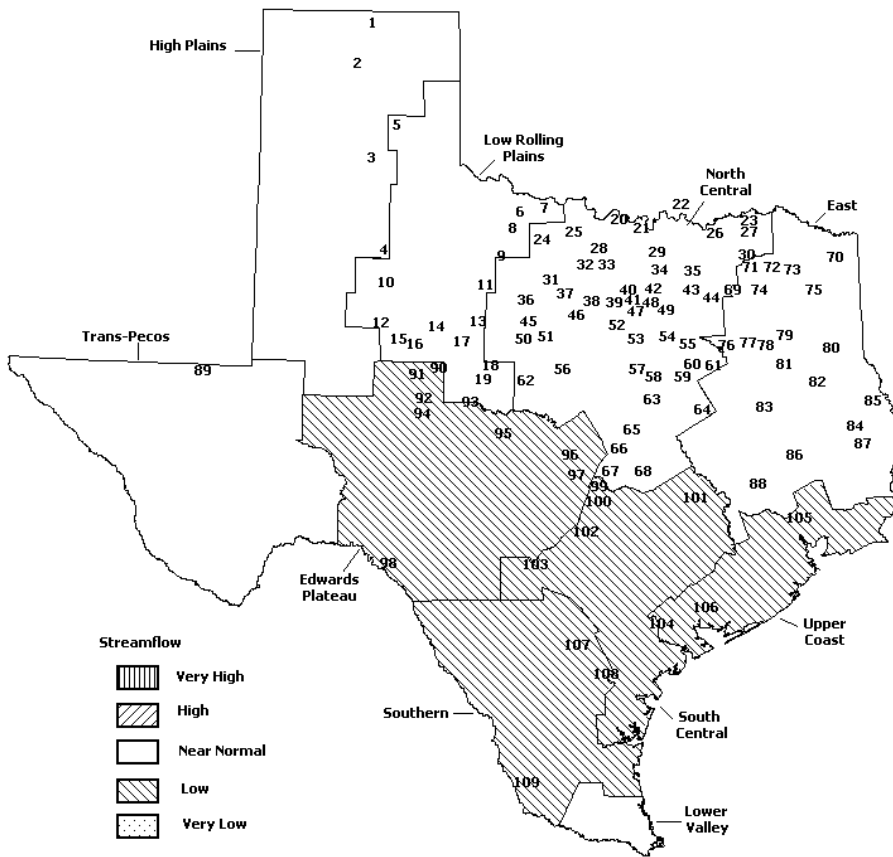
STREAMFLOW

Of 29 reporting index stations in June, computed 30-day mean flows were very high (<5%) at 1 station, high (5% - 30%) at 1 station, low (70% - 95%) at 16 stations, very low (>95%) at 1 station, and near normal (30% - 70%) at the remaining 10 stations. Compared to May, flows have increased at 5 index stations and decreased at 22 stations.

On a regional basis, flows in June were low in the Southern, Upper Coast, South Central, and Edwards Plateau regions, and normal in all other regions. Streamflow in the Lower Valley Region is not monitored.

JUNE 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 May		Change since Late June	
		Capacity (acre-feet)	Late Jun. (acre-feet)	2009 (%)	Late May 2009 (%)	Late June 2008 (acre-feet)	(%)		
HIGH PLAINS									
Palo Duro Reservoir	1	60,897	1,031	2	-399	-1	762	1	
Meredith, Lake (Texas)	2	500,000	46,054	9	-5,521	-1	16,981	3	
Meredith, Lake (Texas & Oklahoma)	(2)	779,556	46,054	6	-5,521	-1	16,981	2	
MacKenzie Reservoir	3	46,429	6,268	14	540	1	-352	-1	
White River Lake	4	29,880	5,024	17	-407	-1	4,465	15	
TOTAL		637,206	58,377	9	-5,787	-1	21,856	3	
LOW ROLLING PLAINS									
Greenbelt Lake	5	59,500	17,653	30	-463	-1	-2,611	-4	
*Electra, Lake	6	5,626	713	13	-63	-1	-784	-14	
N. Fork Buffalo Crk Reservoir	7	15,400	5,272	34	315	2	1,094	7	
Kemp, Lake	8	245,308	183,856	75	22,140	9	-52,868	-22	
Millers Creek Reservoir	9	27,888	14,643	53	330	1	-5,986	-21	
Alan Henry Reservoir	10	94,808	90,205	95	-552	-1	105	0	
Stamford, Lake	11	51,570	37,790	73	4,425	9	-5,744	-11	
J B Thomas, Lake	12	199,931	12,152	6	-1,165	-1	-4,362	-2	
Fort Phantom Hill, Lake	13	70,030	53,619	77	-2,204	-3	-12,944	-18	
Sweetwater, Lake	14	10,006	6,675	67	-260	-3	-2,532	-25	
Colorado City, Lake	15	31,793	19,864	62	-660	-2	-4,497	-14	
Champion Creek Reservoir	16	41,618	8,544	21	-281	-1	-949	-2	
Abilene, Lake	17	6,099	2,598	43	-108	-2	-2,787	-46	
Coleman, Lake	18	38,076	24,948	66	-865	-2	-8,218	-22	
Hords Creek Lake	19	5,684	2,056	36	-221	-4	-1,917	-34	
TOTAL		903,337	480,588	53	20,368	2	-105,000	-12	
NORTH CENTRAL									
Nocona, Lake (Farmers Crk)	20	21,445	20,872	97	-573	-3	1,203	6	
Hubert H Moss Lake	21	24,058	23,438	97	-481	-2	-21	0	
Texoma, Lake (Texas)	22	1,334,294	1,334,294	100	0	0	21,531	2	
Texoma, Lake (Texas & Oklahoma)	(22)	2,668,589	2,668,589	100	0	0	43,062	2	
*Pat Mayse Lake	23	118,100	118,100	100	0	0	0	0	
Kickapoo, Lake	24	85,825	43,870	51	5,870	7	-9,246	-11	
Arrowhead, Lake	25	235,997	169,182	72	-9,049	-4	-20,546	-9	
Bonham, Lake	26	11,026	10,306	93	-627	-6	-349	-3	
Crook, Lake	27	9,195	8,678	94	-517	-6	-382	-4	
Amon G Carter, Lake	28	19,903	18,060	91	-740	-4	-754	-4	
Ray Roberts, Lake	29	798,758	798,758	100	0	0	7,282	1	
Jim Chapman Lake (Cooper)	30	260,332	251,128	96	-9,204	-4	-7,641	-3	
Graham, Lake	31	45,260	36,938	82	-2,565	-6	-7,736	-17	
*Lost Creek Reservoir	32	11,950	9,807	82	-201	-2	-1,777	-15	
Bridgeport, Lake	33	366,236	272,874	75	-1,215	0	-81,323	-22	
Lewisville Lake	34	543,988	536,734	99	-7,254	-1	8,995	2	
Lavon Lake	35	443,844	431,237	97	-12,607	-3	2,521	1	
Hubbard Creek Reservoir	36	318,067	233,901	74	-5,746	-2	-67,426	-21	
Possum Kingdom Lake	37	540,340	480,304	89	5,297	1	-38,382	-7	
*Mineral Wells, Lake	38	7,065	5,091	72	260	4	-1,210	-17	
Weatherford, Lake	39	18,645	13,564	73	486	3	-3,602	-19	
Eagle Mountain Lake	40	182,500	150,938	83	-79	0	-19,919	-11	
Worth, Lake	41	24,500	17,232	70	31	0	-4,977	-20	
Grapevine Lake	42	164,702	150,703	92	7,584	5	-10,203	-6	
Ray Hubbard, Lake	43	452,040	449,766	99	-2,274	-1	2,479	1	
New Terrell City Lake	44	8,583	8,328	97	-255	-3	-187	-2	
Daniel, Lake	45	9,435	5,251	56	-331	-4	-3,721	-39	
Palo Pinto, Lake	46	27,150	9,884	36	-1,591	-6	-12,780	-47	
Benbrook Lake	47	85,648	81,400	95	-848	-1	-350	0	
Arlington, Lake	48	38,740	36,711	95	-833	-2	2,183	6	

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 May 2009		Change since Late June 2008		
			Late Jun. (acre-feet)	2009 (%)	(acre-feet)	(%)	(acre-feet)	(%)	
NORTH CENTRAL (Continue)									
Joe Pool Lake	49	142,861	139,318	98	-1,919	-1	-1,771	-1	
*Cisco, Lake	50	26,000	18,175	70	-1,702	-7	-3,887	-15	
Leon, Lake	51	26,421	18,705	71	-678	-3	-7,452	-28	
Granbury, Lake	52	128,046	110,612	86	-3,012	-2	-9,590	-7	
Pat Cleburne, Lake	53	25,730	21,760	85	-701	-3	-2,586	-10	
Waxahachie, Lake	54	10,779	9,363	87	-909	-8	765	7	
Bardwell Lake	55	46,122	42,486	92	-696	-2	-2,676	-6	
Proctor Lake	56	55,457	34,328	62	1,912	3	-14,714	-27	
Whitney, Lake	57	553,349	371,745	67	-7,618	-1	-97,346	-18	
Aquilla Lake	58	45,092	42,191	94	-2,871	-6	672	1	
Navarro Mills Lake	59	55,817	52,582	94	-3,235	-6	-1,793	-3	
*Halbert, Lake	60	6,033	3,530	59	-396	-7	-1,437	-24	
Richland-Chambers Reservoir	61	1,103,816	976,947	89	-29,352	-3	-92,756	-8	
*Brownwood, Lake	62	131,429	95,061	72	-1,721	-1	-19,016	-14	
Waco, Lake	62	198,943	195,358	98	-3,585	-2	-834	0	
Limestone, Lake	64	208,015	193,441	93	-10,914	-5	-3,352	-2	
Belton Lake	65	435,225	405,962	93	-23,722	-5	-24,445	-6	
Stillhouse Hollow Lake	66	227,771	216,257	95	-1,939	-1	-9,215	-4	
Georgetown, Lake	67	36,823	18,433	50	-1,133	-3	-7,128	-19	
Granger Lake	68	52,525	42,316	81	-2,812	-5	-8,974	-17	
Tawakoni, Lake	69	888,126	860,499	97	-27,627	-3	-26,864	-3	
TOTAL		10,612,006	9,596,418	90	-162,092	-2	-580,737	-5	
EAST									
Wright Patman Lake	70	292,668	292,668	100	-15,305	-5	0	0	
*Sulphur Springs, Lake	71	17,838	17,400	98	-438	-2	-438	-2	
Cypress Springs, Lake	72	67,689	67,206	99	-483	-1	-483	-1	
Bob Sandlin, Lake	73	200,579	199,312	99	-1,267	-1	-1,267	-1	
Fork Reservoir, Lake	74	604,927	604,927	100	0	0	0	0	
O the Pines, Lake	75	267,672	264,179	99	-3,493	-1	-3,493	-1	
Cedar Creek Reservoir in Trinity	76	644,686	634,398	98	-964	0	-1,929	0	
Athens, Lake	77	29,435	28,915	98	-520	-2	-520	-2	
Palestine, Lake	78	370,907	359,823	97	-10,432	-3	-11,084	-3	
Tyler, Lake	79	73,256	70,960	97	-1,637	-2	-2,296	-3	
Murvaul, Lake	80	38,284	37,328	98	-921	-2	1,237	3	
Jacksonville, Lake	81	30,300	29,503	97	-675	-2	-459	-2	
Nacogdoches, Lake	82	39,521	36,605	93	-1,697	-4	-676	-2	
Houston County Lake	83	17,113	16,224	95	-660	-4	-736	-4	
Sam Rayburn Reservoir	84	2,857,077	2,593,372	91	-85,129	-3	-67,888	-2	
Toledo Bend Reservoir (Texas)	85	2,236,450	2,116,326	95	-104,889	-5	-47,538	-2	
Toledo Bend Reservoir (TX & LA)	(85)	4,472,900	4,232,653	95	-209,778	-5	-95,075	-2	
*Livingston, Lake	86	1,741,867	1,741,867	100	0	0	0	0	
B A Steinhagen Lake	87	66,966	61,522	92	-706	-1	6,559	10	
Conroe, Lake	88	416,188	400,597	96	-11,693	-3	-5,457	-1	
TOTAL		10,013,423	9,573,132	96	-240,909	-2	-136,468	-1	
TRANS-PECOS									
Red Bluff Reservoir	89	289,670	63,857	22	-2,476	-1	-14,004	-5	
TOTAL		289,670	63,857	22	-2,476	-1	-14,004	-5	

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

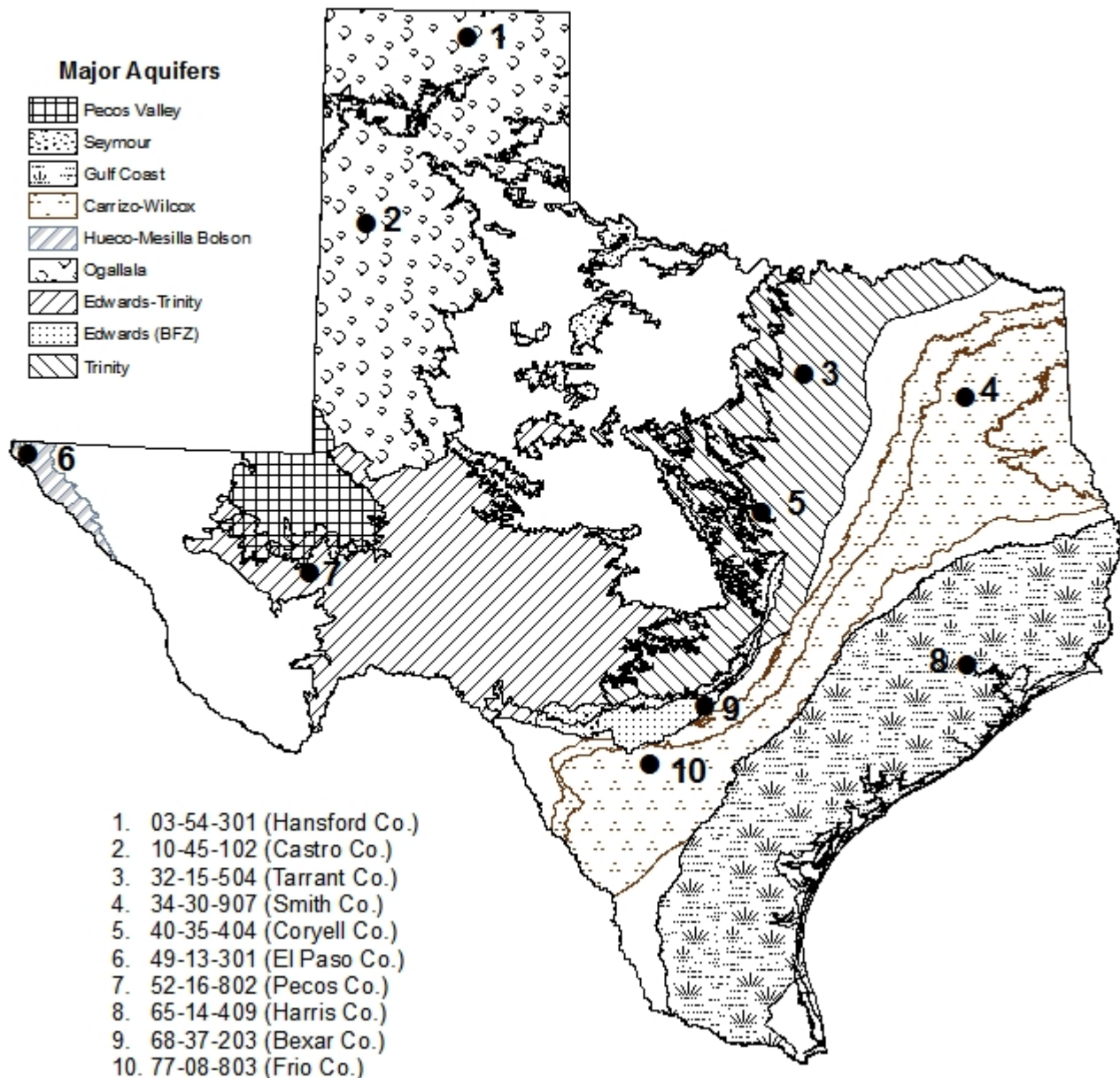
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage		Change since Late May 2009		Change since Late June 2008		
			Late Jun. (acre-feet)	2009 (%)	(acre-feet)	(%)	(acre-feet)	(%)	
EDWARDS PLATEAU									
Oak Creek Reservoir	90	39,260	26,867	68	-1,114	-3	-8,767	-22	
E V Spence Reservoir	91	517,272	39,178	8	-3,269	-1	-27,179	-5	
O C Fisher Lake	92	79,483	0	0	0	0	0	0	
*O H Ivie Reservoir	93	554,335	270,925	49	-9,528	-2	-83,893	-15	
Twin Buttes Reservoir	94	177,850	38,111	21	-4,527	-3	-24,365	-14	
Brady Creek Reservoir	95	29,110	14,856	51	-749	-3	-4,129	-14	
Buchanan, Lake	96	824,519	505,045	61	-40,981	-5	-296,651	-36	
Lyndon B Johnson, Lake	97	113,690	110,154	97	-1,093	-1	-771	-1	
*Amistad Reservoir (Texas)	98	1,840,849	1,847,000	100	21,000	1	-282,000	-15	
*Amistad Reservoir (TX & Mexico)	(98)	3,275,532	3,275,000	100	43,000	1	1,041,000	32	
TOTAL		4,176,368	2,852,136	68	-40,261	-1	-727,755	-17	
SOUTH CENTRAL									
Travis, Lake	99	1,113,902	558,397	50	-90,130	-8	-338,424	-30	
*Austin, Lake	100	21,804	20,881	96	197	1	-196	-1	
Somerville Lake	101	147,104	120,897	82	-15,644	-11	-18,632	-13	
Canyon Lake	102	378,781	278,967	74	-6,500	-2	-73,274	-19	
Medina Lake	103	254,823	92,458	36	-13,602	-5	-105,208	-41	
*Coletto Creek Reservoir	104	31,040	23,782	77	-1,736	-6	-2,740	-9	
TOTAL		1,947,454	1,095,382	56	-127,415	-7	-538,474	-28	
UPPER COAST									
Houston, Lake	105	128,863	128,863	100	0	0	0	0	
Texana, Lake	106	153,246	101,467	66	-15,428	-10	-21,543	-14	
TOTAL		282,109	230,330	82	-15,428	-5	-21,543	-8	
SOUTHERN									
Choke Canyon Reservoir	107	695,262	512,736	74	-15,538	-2	-119,128	-17	
Corpus Christi, Lake	108	256,961	109,534	43	-15,470	-6	-98,861	-38	
*Falcon Reservoir (Texas)	109	1,551,034	1,231,000	79	-40,000	-3	481,000	31	
*Falcon Reservoir (TX & Mexico)	(109)	2,646,817	1,949,000	74	19,000	1	1,061,000	40	
TOTAL		2,503,257	1,853,270	74	-71,008	-3	263,011	11	
STATE TOTAL		31,364,830	25,803,490	82	-645,008	-2	-1,839,114	-6	

* 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 $100 \times (\text{current conservation storage} - \text{past conservation storage}) / \text{conservation storage capacity}$. Figures shown are for the Texas share of conservation storage in all reservoirs.

GROUND WATER LEVELS IN OBSERVATION WELLS

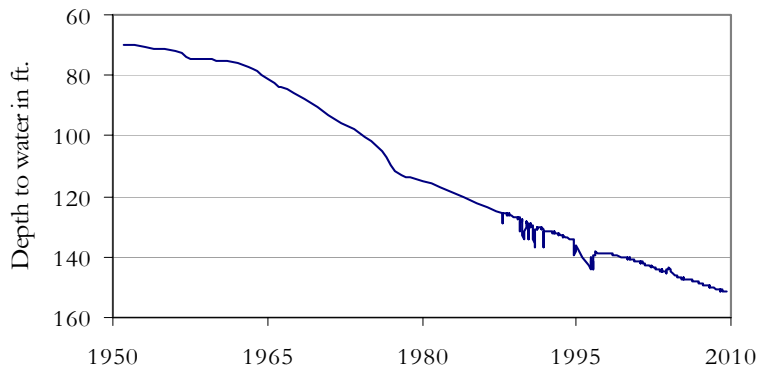


June, 2009

Water level measurements were available for nine out of the ten key monitoring wells. Water levels rose in two of the ten monitoring wells since the beginning of June, ranging from 0.62 feet in the Castro Co. Ogallala well to 1.09 feet in the El Paso Co. Hueco Bolson well. Water levels declined in the remaining monitoring wells, ranging from 0.02 feet in the Hansford Co. Ogallala well to 16.25 feet in the Bexar Co. Edwards BFZ well. The J-17 well in San Antonio recorded a water level of 90.11 feet below land surface, 16.25 feet below last month's measurement. This water level is 0.89 feet above the Stage 3 critical management level. Stage 2 drought restrictions are currently in place.

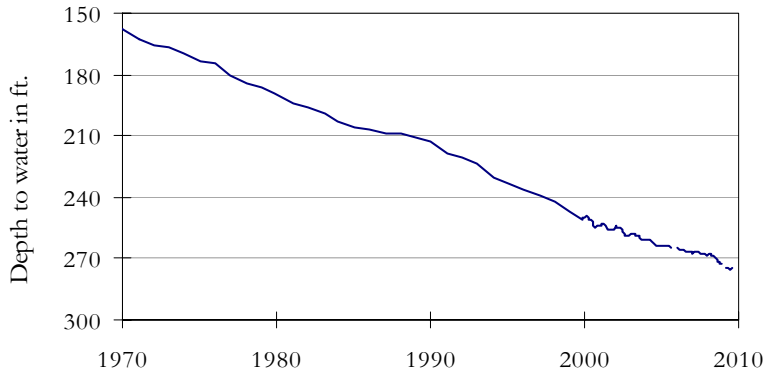
JUNE GROUNDWATER LEVELS IN OBSERVATION WELLS

Well No. 03-54-301
Near Spearman, Hansford County
Ogallala



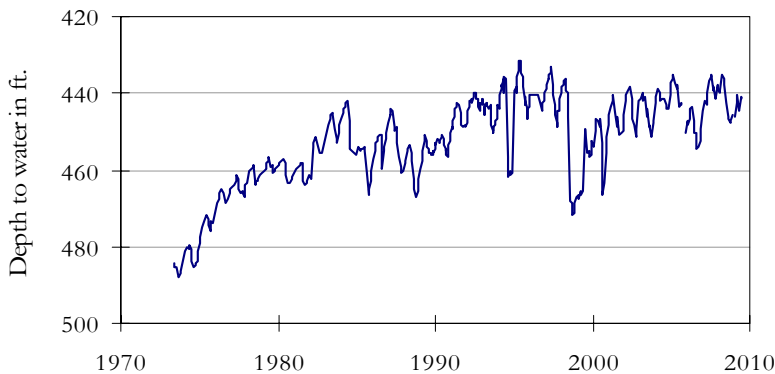
The late June water level measurement in this Ogallala Aquifer well, elevation 2,962 feet above sea level, was 151.34 feet below land surface. This measurement was 0.02 feet below last month's measurement, 0.89 feet below last year's measurement, and 81.22 feet below the initial measurement recorded in 1951.

Well No. 10-45-102
Southwest Castro County
Ogallala



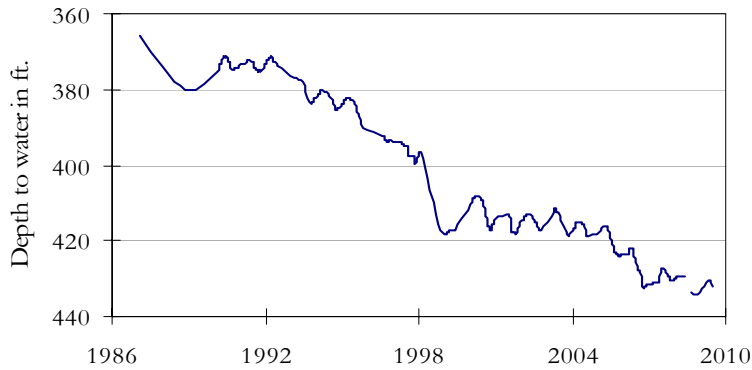
The late June water level measurement in this Ogallala Aquifer well, elevation 3,816 feet above sea level, was 274.66 feet below land surface. This measurement was 0.62 feet above last month's measurement, 4.40 feet below last year's measurement, and 118.66 feet below the initial measurement recorded in 1968.

Well No. 32-15-504
Near Hurst, Tarrant County
Paluxy



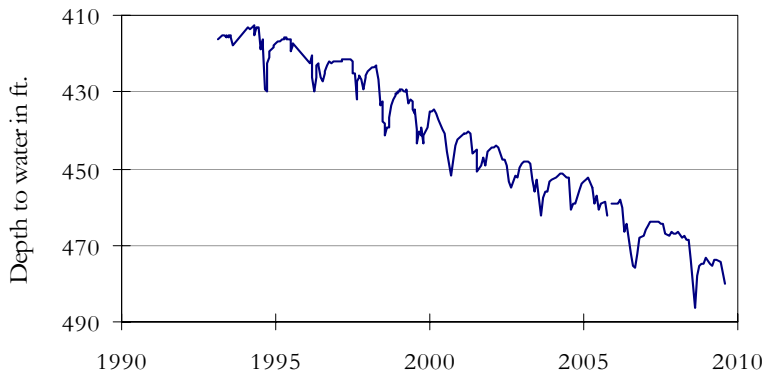
The late June water level measurement in this Paluxy Formation Trinity Aquifer well, elevation 535 feet above sea level, was 441.59 feet below land surface. This measurement was 0.51 feet below last month's measurement, 1.04 feet above last year's measurement, and 63.59 feet below the initial measurement recorded in 1955.

**Well No. 34-30-907
Red Springs, Smith County
Carrizo Sand**



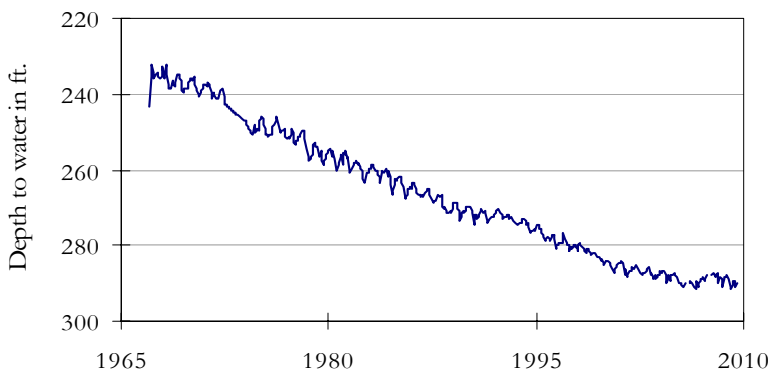
The late June water level measurement in this Carrizo-Wilcox Aquifer well, elevation 555 feet above sea level, was 432.15 feet below land surface. This water level was 1.58 feet below last month's measurement and 66.15 feet below the initial measurement recorded in 1987.

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



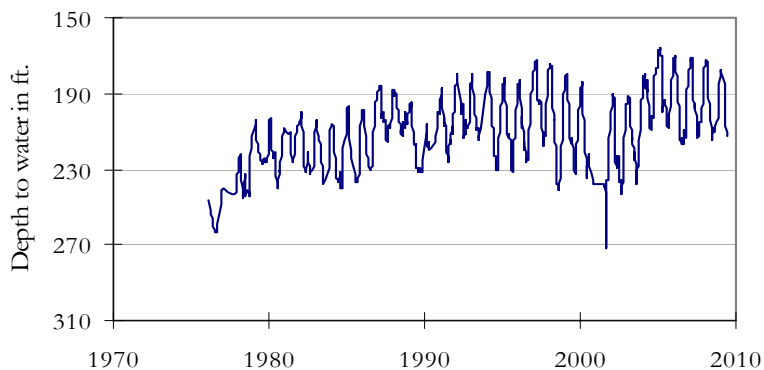
The late June water level measurement in this Hosston Formation Trinity Aquifer well, elevation 823 feet above sea level, was 480.12 feet below land surface. This water level was 5.88 feet below last month's measurement, 6.12 feet below last year's measurement, and 188.12 feet below the initial measurement recorded in 1955.

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



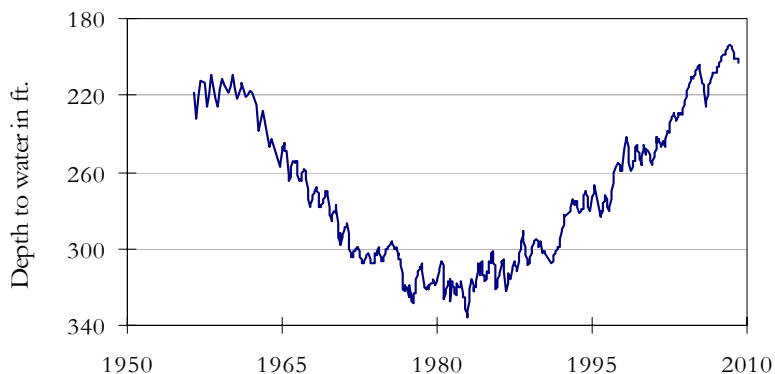
The late June water level measurement in this Hueco Bolson Aquifer well, elevation 3,882 feet above sea level, was 289.86 feet below land surface. This water level was 1.09 feet above last month's measurement, 1.14 feet above last year's measurement, and 57.96 feet below the initial measurement in 1964.

**Well No. 52-16-802
Fort Stockton, Pecos County
Edwards and Associated Limestones**



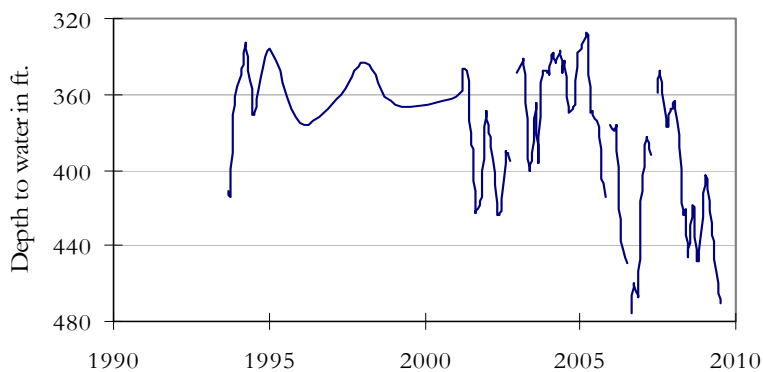
The late June water level measurement in this Edwards-Trinity Plateau Aquifer well, elevation 3,199 feet above sea level, was 212.50 feet below land surface. This water level was 2.55 feet below last month's measurement, 1.89 feet below last year's measurement, and 34.38 feet above the initial measurement in 1976.

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



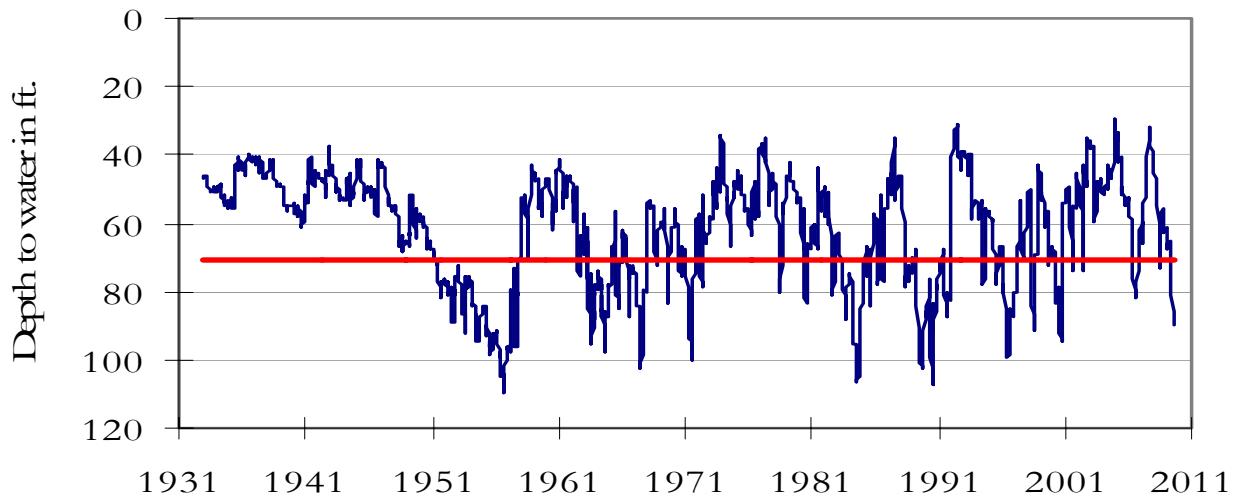
The late June water level measurement in this Evangeline Formation Gulf Coast Aquifer well, elevation 66 feet above sea level was not available.

**Well No. 77-08-803
Pearsall, Frio County
Carrizo Sand**



The late June water level measurement in this Carrizo-Wilcox Aquifer well, elevation 652 feet above sea level, was 470.14 feet below land surface. This was 5.27 feet below last month's measurement, 23.55 feet below last year's measurement, and 190.14 feet below the initial measurement recorded in 1963.

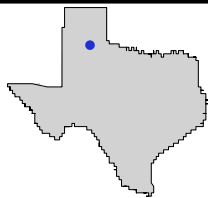
**Well No. 68-37-203 (J-17)
In San Antonio, Bexar County
Edwards and Associated Limestones**



The late June water level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above sea level, was 90.11 feet below land surface. This was 16.25 feet below last month's measurement, 16.91 feet below last year's measurement, and 43.47 feet below the initial measurement recorded in 1932. Stage 2 drought restrictions are still in place.

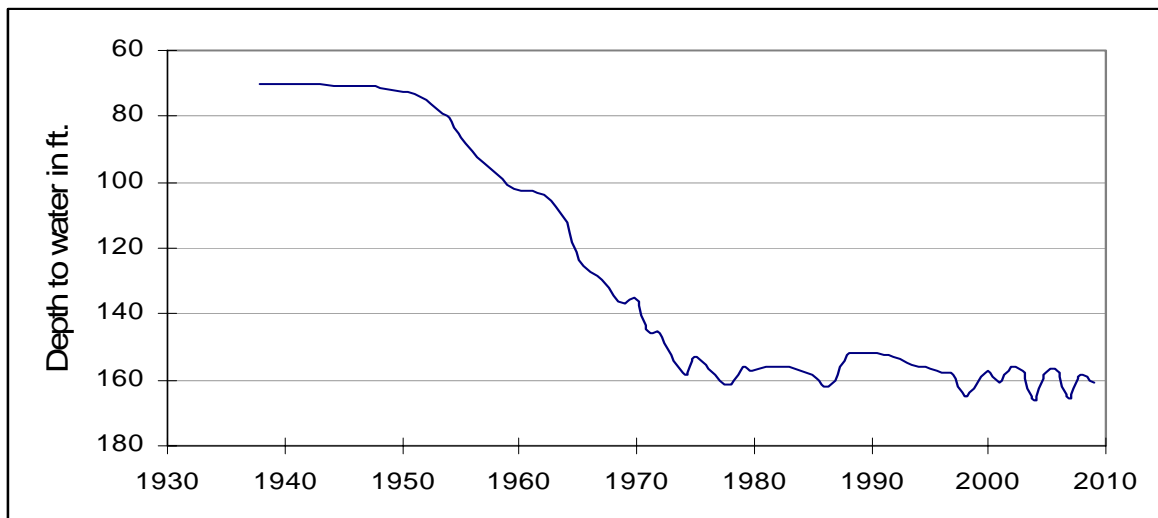
***** Water levels below the red line indicate Edwards Aquifer Authority Stage 1 drought restrictions. *****

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 11-19-401
Swisher County**



This water level observation well, located 8 miles southeast of Happy, at an elevation of 3500 feet ASL, was completed in the Ogallala Aquifer. The Ogallala Aquifer is the largest aquifer in the United States and a major aquifer in Texas. An increase in conservation and improved irrigation practices has slowed the rate of water level decline over the past 40 years.

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