Texas Water Development Board

WATER Conditions

RESERVOIR STORAGE

July 2011

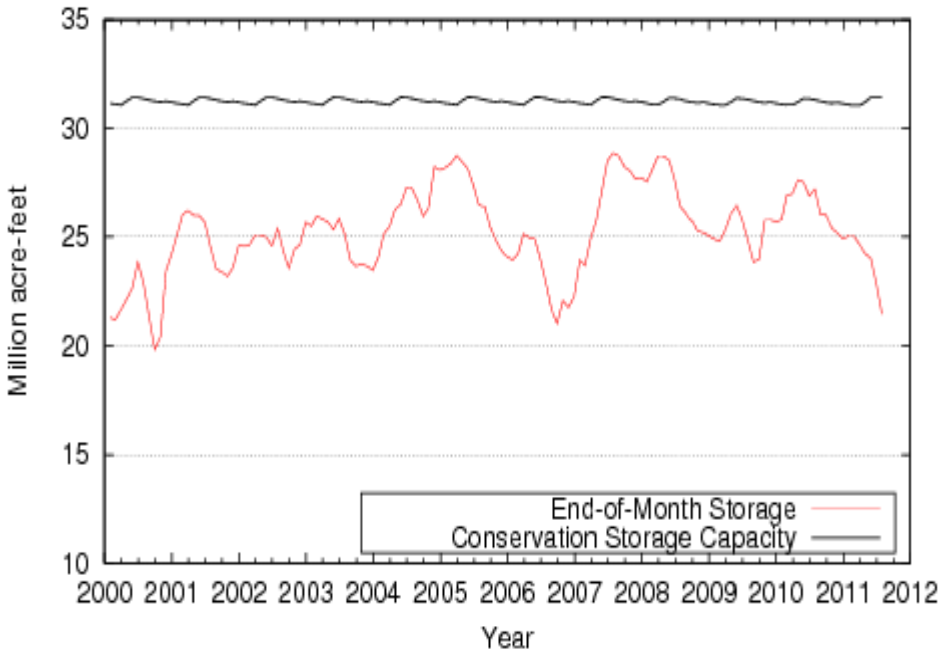
At the end of July, total storage in 109 of the state's major reservoirs* was at 21.47 million acre-feet**, or 68% of the total conservation storage capacity. This is 1.4 million acre-feet less than a month ago.

No reservoirs held 100% of capacity; this is one less than last month. Seven reservoirs were at or below 5% full: O. C. Fisher Lake Reservoir, Hords Creek Lake, and Lake Meredith were effectively empty, E.V. Spence Reservoir and Lake Electra were at 1% full, Lake J. B. Thomas was at 2% full, and Twin Buttes was at 4% full.

No region had combined storage above 80%. The High Plains (3%) and Trans-Pecos regions (13%) remained very low. Over the last month and last year, storage declined in all regions.

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

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS



Figures are based on the end of the month data at 109 major reservoirs that represent 96 percent of the total conservation storage capacity of the 175 major water supply reservoirs in Texas. Reservoirs with a conservation storage capacity of 5,000 acre-feet or greater are included.

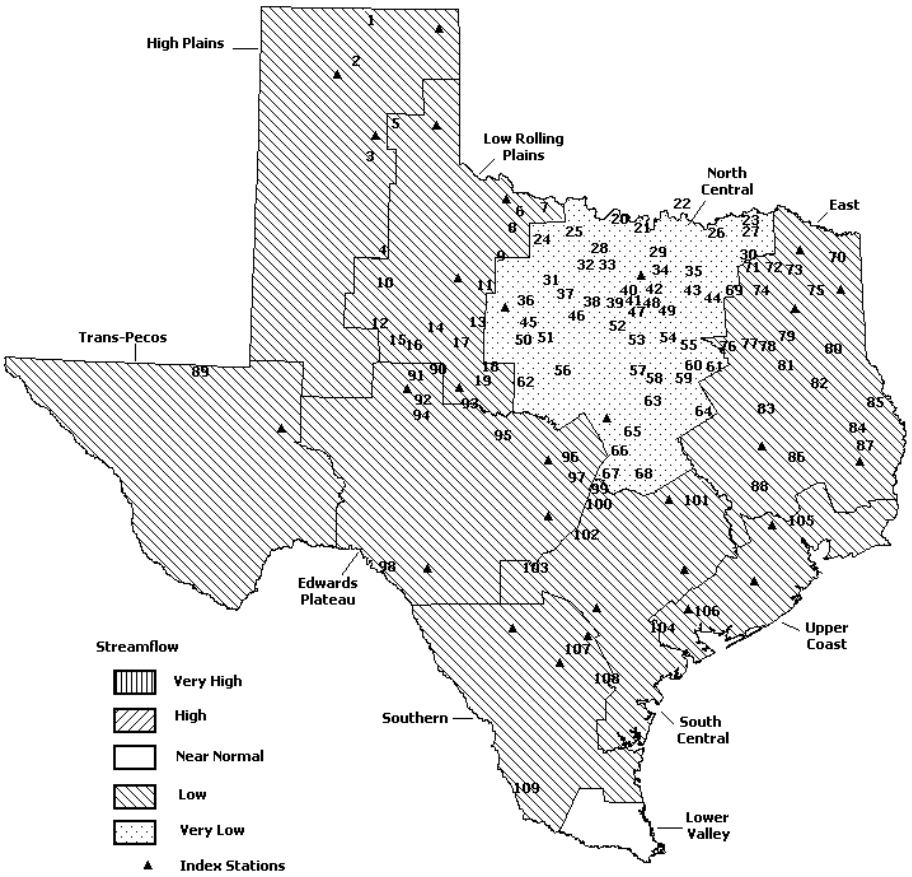
PO BOX 13231 • 1700 N. Congress Avenue • Austin, TX 78711-3231
Telephone (512) 463-7847 • Telefax (512) 475-2053 • 1-800-RELAYTX (for the hearing impaired)

STREAMFLOW

Of 29 reporting index stations in July, computed 30-day mean flows were very high (<5%) at 1 station, high (5-30%) at 1 station, low (70% - 95%) at 15 stations, very low (>95%) at 6 stations, and near normal (30% - 70%) at the remaining 6 stations. Compared to June, flows have increased at 4 index stations and decreased at 22 stations.

On a regional basis, flows in July were very low in North Central region and low in all other regions. Streamflow in the Lower Valley region is not monitored.

JULY 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. Waxahachie, 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. Brady 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. Coleto 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 Capacity (acre-feet)	Conservation Storage Late July 2011 (acre-feet)	(%)	Change since Late June 2011 (acre-feet)	(%)	Change since Late July 2010 (acre-feet)	(%)
HIGH PLAINS								
Palo Duro Reservoir	1	60,897	6,031	10	-907	-1	-18,723	-31
Meredith, Lake (Texas)	2	500,000	0	0	0	0	-19,569	-4
Meredith, Lake (Texas & Oklahoma)	(2)	779,556	0	0	0	0	-19,569	-3
MacKenzie Reservoir	3	46,429	4,860	10	-219	0	-1,970	-4
White River Lake	4	29,880	6,533	22	-859	-3	-4,352	-15
TOTAL		637,206	17,424	3	-1,985	0	-44,614	-7
LOW ROLLING PLAINS								
Greenbelt Lake	5	59,500	12,593	21	-1,013	-2	-5,630	-9
*Electra, Lake	6	5,626	69	1	-44	-1	-584	-10
N. Fork Buffalo Crk Reservoir	7	15,400	3,300	21	-502	-3	-3,299	-21
Kemp, Lake	8	245,308	122,936	50	-25,831	-11	-122,372	-50
Millers Creek Reservoir	9	27,888	12,931	46	-1,369	-5	-8,596	-31
Alan Henry Reservoir	10	94,808	80,183	85	-1,919	-2	-14,625	-15
Stamford, Lake	11	51,570	33,657	65	-3,575	-7	-17,913	-35
J B Thomas, Lake	12	199,931	4,429	2	-1,183	-1	-10,845	-5
Fort Phantom Hill, Lake	13	70,030	43,022	61	-4,087	-6	-21,430	-31
Sweetwater, Lake	14	10,006	3,960	40	-385	-4	-2,566	-26
Colorado City, Lake	15	31,793	11,565	36	-414	-1	-4,892	-15
Champion Creek Reservoir	16	41,618	5,225	13	-343	-1	-2,136	-5
Abilene, Lake	17	6,099	2,641	43	-501	-8	-3,411	-56
Coleman, Lake	18	38,076	16,884	44	-1,161	-3	-7,657	-20
Hords Creek Lake	19	5,684	0	0	0	0	-1,024	-18
TOTAL		903,337	353,395	39	-42,327	-5	-226,980	-25
NORTH CENTRAL								
Nocona, Lake (Farmers Crk)	20	21,445	14,771	69	-1,146	-5	-6,460	-30
Hubert H Moss Lake	21	24,058	22,228	92	-1,007	-4	-1,306	-5
Texoma, Lake (Texas)	22	1,334,295	1,121,439	84	-55,667	-4	-164,974	-12
Texoma, Lake (Texas & Oklahoma)	(22)	2,668,590	2,242,879	84	-111,333	-4	-329,947	-12
*Pat Mayse Lake	23	117,844	110,680	94	-5,600	-5	-2,808	-2
Kickapoo, Lake	24	85,825	50,582	59	-5,502	-6	-32,005	-37
Arrowhead, Lake	25	235,997	145,982	62	-12,512	-5	-73,846	-31
Bonham, Lake	26	11,026	9,053	82	-1,119	-10	-1,294	-12
Crook, Lake	27	9,195	7,711	84	-719	-8	-320	-3
Amon G Carter, Lake	28	19,903	14,585	73	-1,350	-7	-5,318	-27
Ray Roberts, Lake	29	798,758	726,108	91	-26,262	-3	-45,261	-6
Jim Chapman Lake (Cooper)	30	260,332	140,088	54	-20,374	-8	-74,480	-29
Graham, Lake	31	45,260	33,752	75	-2,716	-6	-10,044	-22
*Lost Creek Reservoir	32	11,950	9,911	83	-378	-3	-1,966	-16
Bridgeport, Lake	33	366,236	264,735	72	-28,583	-8	-101,501	-28
Lewisville Lake	34	563,228	485,582	86	-48,114	-9	-48,375	-9
Lavon Lake	35	443,844	318,921	72	-51,341	-12	-63,656	-14
Hubbard Creek Reservoir	36	318,067	153,781	48	-10,421	-3	-55,199	-17
Possum Kingdom Lake	37	540,340	437,838	81	-28,746	-5	-84,576	-16
*Mineral Wells, Lake	38	7,065	5,008	71	-329	-5	-1,816	-26
Weatherford, Lake	39	17,789	11,970	67	-360	-2	-5,476	-31
Eagle Mountain Lake	40	179,880	139,620	78	-4,987	-3	-39,828	-22
Worth, Lake	41	24,500	16,798	69	-2,385	-10	-5,310	-22
Grapevine Lake	42	164,702	153,814	93	-9,490	-6	-7,092	-4
Ray Hubbard, Lake	43	452,040	388,482	86	-27,484	-6	-10,923	-2
New Terrell City Lake	44	8,583	6,588	77	-600	-7	-1,241	-14
Daniel, Lake	45	9,435	2,520	27	-487	-5	-3,380	-36
Palo Pinto, Lake	46	26,827	20,108	75	-2,870	-11	-3,695	-14
Benbrook Lake	47	85,648	60,772	71	-14,808	-17	-18,980	-22
Arlington, Lake	48	40,156	25,686	64	-8,401	-21	-12,770	-32

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late July 2011 (acre-feet)	(%)	Change since Late June 2011 (acre-feet)	(%)	Change since Late July 2010 (acre-feet)	(%)
NORTH CENTRAL (Continue)								
Joe Pool Lake	49	142,861	130,296	91	-6,439	-5	-12,196	-9
*Cisco, Lake	50	26,000	11,909	46	-736	-3	-6,291	-24
Leon, Lake	51	26,421	12,457	47	-1,254	-5	-6,260	-24
Granbury, Lake	52	128,046	104,046	81	-6,566	-5	-20,979	-16
Pat Cleburne, Lake	53	26,008	19,981	77	-1,719	-7	-3,713	-14
Waxahachie, Lake	54	10,779	9,101	84	-335	-3	-638	-6
Bardwell Lake	55	46,122	38,493	83	-3,240	-7	-5,772	-13
Proctor Lake	56	55,457	24,395	44	-3,608	-7	-19,967	-36
Whitney, Lake	57	553,349	308,270	56	-20,857	-4	-216,400	-39
Aquilla Lake	58	44,460	35,387	80	-3,254	-7	-7,285	-16
Navarro Mills Lake	59	49,826	40,851	82	-4,481	-9	-7,905	-16
*Halbert, Lake	60	6,033	2,783	46	-391	-6	-1,891	-31
Richland-Chambers Reservoir	61	1,087,839	895,538	82	-43,112	-4	-171,524	-16
*Brownwood, Lake	62	131,429	58,261	44	-5,794	-4	-36,158	-28
Waco, Lake	62	198,943	165,392	83	-10,913	-5	-32,134	-16
Limestone, Lake	64	208,015	146,536	70	-14,112	-7	-54,038	-26
Belton Lake	65	435,225	363,728	84	-16,271	-4	-43,632	-10
Stillhouse Hollow Lake	66	227,771	169,487	74	-28,083	-12	-58,284	-26
Georgetown, Lake	67	36,823	18,483	50	-3,025	-8	-16,980	-46
Granger Lake	68	50,779	40,771	80	-3,692	-7	-2,674	-5
Tawakoni, Lake	69	888,126	731,320	82	-37,574	-4	-112,031	-13
TOTAL		10,604,540	8,226,598	78	-589,214	-6	-1,720,652	-16
EAST								
Wright Patman Lake	70	307,973	264,185	86	-33,260	-11	-13,301	-4
*Sulphur Springs, Lake	71	17,838	10,242	57	-852	-5	-2,864	-16
Cypress Springs, Lake	72	66,756	58,964	88	-2,188	-3	-6,737	-10
Bob Sandlin, Lake	73	200,579	148,532	74	-9,269	-5	-43,615	-22
Fork Reservoir, Lake	74	604,927	478,309	79	-20,267	-3	-106,555	-18
O the Pines, Lake	75	267,672	213,909	80	-13,945	-5	-53,763	-20
Cedar Creek Reservoir in Trinity	76	644,686	508,034	79	-19,564	-3	-118,970	-18
Athens, Lake	77	29,435	24,289	83	-1,619	-6	-5,020	-17
Palestine, Lake	78	370,907	288,636	78	-19,316	-5	-76,403	-21
Tyler, Lake	79	73,256	54,169	74	-372	-1	-18,381	-25
Murvaul, Lake	80	38,284	27,853	73	-2,113	-6	-6,269	-16
Jacksonville, Lake	81	25,670	22,183	86	-769	-3	-2,593	-10
Nacogdoches, Lake	82	39,521	23,030	58	-1,803	-5	-11,656	-29
Houston County Lake	83	17,113	14,886	87	-1,071	-6	-1,706	-10
Sam Rayburn Reservoir	84	2,857,077	1,841,413	64	-106,109	-4	-608,789	-21
Toledo Bend Reservoir (Texas)	85	2,236,450	1,472,431	66	-47,732	-2	-427,390	-19
Toledo Bend Reservoir (TX & LA)	(85)	4,472,900	2,944,862	66	-95,465	-2	-854,780	-19
*Livingston, Lake	86	1,741,867	1,644,000	94	-94,000	-5	-97,867	-6
B A Steinhagen Lake	87	66,966	62,026	93	-101	0	3,729	6
Conroe, Lake	88	416,188	349,061	84	-10,018	-2	-59,526	-14
TOTAL		10,023,165	7,506,152	75	-384,368	-4	-1,657,676	-17
TRANS-PECOS								
Red Bluff Reservoir	89	289,670	39,075	13	-4,992	-2	-20,250	-7
TOTAL		289,670	39,075	13	-4,992	-2	-20,250	-7

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

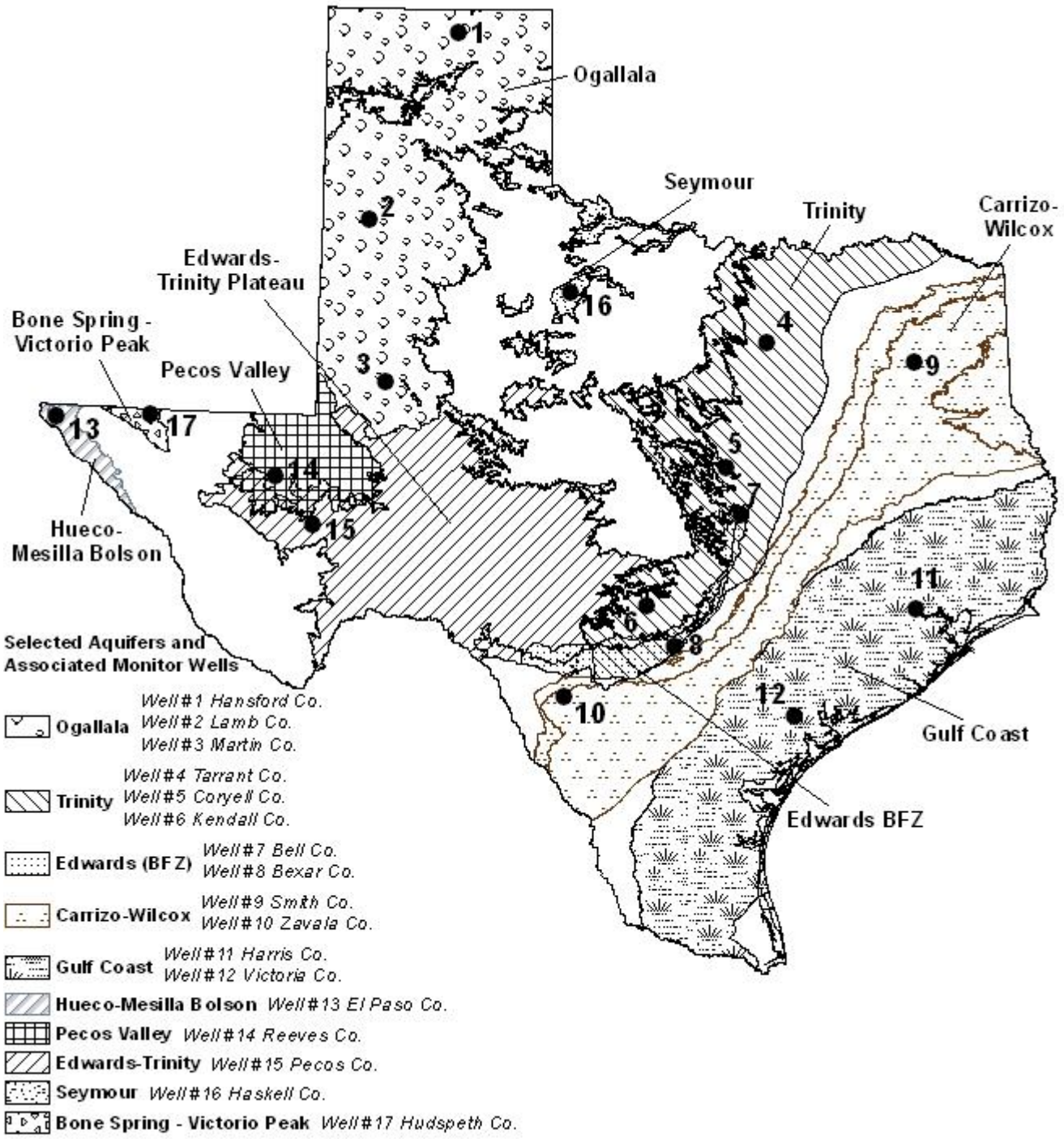
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late July 2011 (acre-feet)	(%)	Change since Late June 2011 (acre-feet)	(%)	Change since Late July 2010 (acre-feet)	(%)
EDWARDS PLATEAU								
Oak Creek Reservoir	90	39,260	17,610	45	-1,208	-3	-7,151	-18
E V Spence Reservoir	91	517,272	3,267	1	-2,039	0	-21,328	-4
O C Fisher Lake	92	79,483	0	0	0	0	0	0
*O H Ivie Reservoir	93	554,335	129,106	23	-10,430	-2	-89,628	-16
Twin Buttes Reservoir	94	177,850	6,675	4	-2,695	-2	-23,715	-13
Brady Creek Reservoir	95	29,110	9,002	31	-865	-3	-6,921	-24
Buchanan, Lake	96	875,610	469,749	54	-58,969	-7	-230,868	-26
Lyndon B Johnson, Lake	97	113,323	110,954	98	-486	0	-304	0
*Amistad Reservoir (Texas)	98	1,840,849	1,683,000	91	-61,000	-3	-157,000	-9
*Amistad Reservoir (TX & Mexico)	(98)	3,275,532	2,954,000	90	-85,000	-3	-321,532	-10
TOTAL		4,227,092	2,429,363	57	-137,692	-3	-536,915	-13
SOUTH CENTRAL								
Travis, Lake	99	1,113,255	519,444	47	-68,269	-6	-435,857	-39
*Austin, Lake	100	21,804	20,896	96	302	1	-197	-1
Somerville Lake	101	147,104	83,620	57	-20,223	-14	-62,843	-43
Canyon Lake	102	378,781	332,450	88	-9,530	-3	-46,331	-12
Medina Lake	103	254,823	97,836	38	-13,579	-5	-88,137	-35
*Coleto Creek Reservoir	104	31,040	24,138	78	-1,311	-4	-6,902	-22
TOTAL		1,946,807	1,078,384	55	-112,610	-6	-640,267	-33
UPPER COAST								
Houston, Lake	105	128,863	95,350	74	-7,750	-6	-33,513	-26
Texana, Lake	106	153,246	86,590	57	-7,673	-5	-66,014	-43
TOTAL		282,109	181,940	64	-15,423	-5	-99,527	-35
SOUTHERN								
Choke Canyon Reservoir	107	695,262	480,747	69	-19,152	-3	-127,003	-18
Corpus Christi, Lake	108	256,961	145,497	57	-19,358	-8	-103,514	-40
*Falcon Reservoir (Texas)	109	1,551,034	1,013,000	65	-81,000	-5	-538,000	-35
*Falcon Reservoir (TX & Mexico)	(109)	2,646,817	1,488,000	56	-81,000	-3	-1,158,817	-44
TOTAL		2,503,257	1,639,244	65	-119,510	-5	-768,517	-31
STATE TOTAL		31,417,183	21,471,575	68	-1,408,121	-4	-5,715,398	-18

*** 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*(current conservation storage - past conservation storage)/conservation storage capacity. Figures shown are for the Texas share of conservation storage in all reservoirs.

JULY 2011 GROUNDWATER LEVELS IN OBSERVATION WELLS



July, 2011

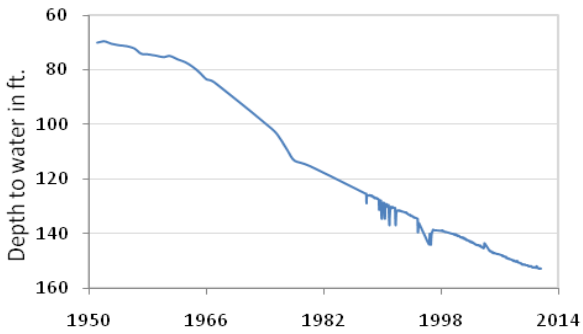
Water level measurements were available for all seventeen key monitoring wells in the state. Water levels rose in four of the monitoring wells since the beginning of July, ranging from 0.07 feet in the Hansford County Ogallala Aquifer well to 10.58 feet in the Zavala County Carrizo-Wilcox Aquifer well. Water levels declined in the remaining thirteen monitoring wells, ranging from 0.24 feet in the Lamb County Ogallala Aquifer well to 12.28 feet in the Kendall County Trinity Aquifer well. The J-17 well in San Antonio recorded a water level of 88.88 feet below land surface. This water level is 7.88 feet below the Stage II critical management level in that segment of the Edwards Aquifer. Stage II restrictions were triggered on June 1, 2011 by the Edwards Aquifer Authority after the 10 day average of water levels fell below 650 foot elevation or 81 feet below land surface.

*** ID is used in this publication to differentiate between the monitoring well number (1 - 17) as displayed on the aquifer map and the TWDB's six- or seven-digit state well "identification" number.**

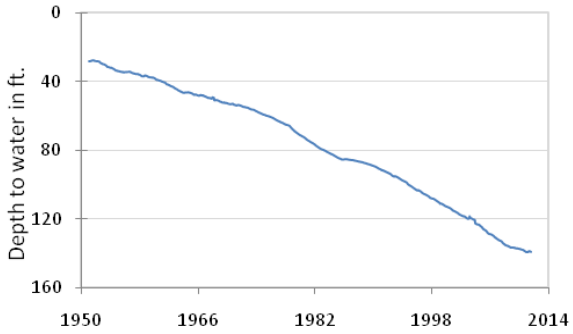
Monitoring Well	July 2011	June 2011	Month Change	Year Change	Historical Change
(1)Hansford 0354301	152.64	152.71	0.07	-0.38	-82.52
(2)Lamb 1053602	139.01	138.77	-0.24	-0.97	-110.86
(3)Martin 2739903	139.68	140.05	0.37	-3.23	-34.79
(4)Tarrant 3215504	455.16	451.07	-4.09	N/A	-77.16
(5)Coryell 4035404	494.98	491.26	-3.72	-15.27	-202.98
(6)Kendall 6802609	154.95	142.67	-12.28	-40.35	-94.95
(7)Bell 5804816	125.84	124.94	-0.9	-4.61	-2.71
(8)Bexar 6837203	88.88	86.84	-2.04	-31.44	-42.24
(9)Smith 3430907	434.78	432.43	-2.35	-2.05	-68.78
(10)Zavala 7702509	380.1	390.68	10.58	-10.22	-15.83
(11)Harris 6514409	198.91	195.67	-3.24	0.7	-63.41
(12)Victoria 8017502	35.09	33.3	-1.79	-1.84	-1.09
(13)El Paso 4913301	290.35	291.22	0.87	1.62	-58.45
(14)Reeves 4644501	154.03	153.1	-0.93	-4.66	-61.94
(15)Pecos 5216802	234.5	233.33	-1.17	-25.8	12.38
(16)Haskell 2135748	47.63	47.35	-0.28	-2.93	-6.3
(17)Hudspeth 4807516	149.12	147.15	-1.97	-4.57	-45.2

JULY GROUNDWATER LEVELS IN OBSERVATION WELLS

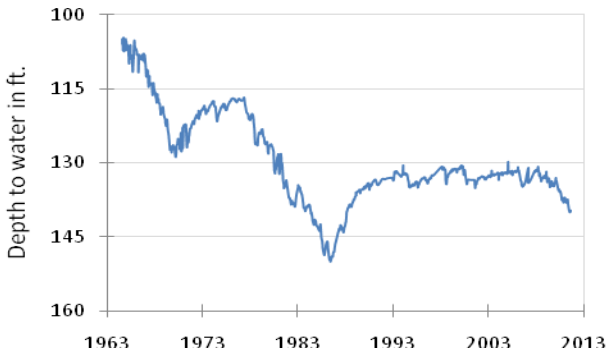
(1) State Well ID 03-54-301
Near Spearman, Hansford County
Ogallala Aquifer



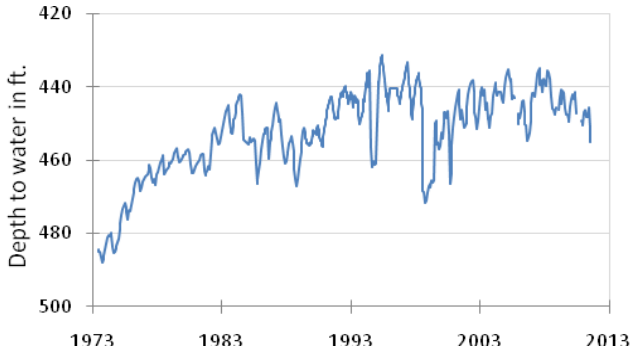
(2) State Well ID 10-53-602
Near Earth, Lamb County
Ogallala Aquifer



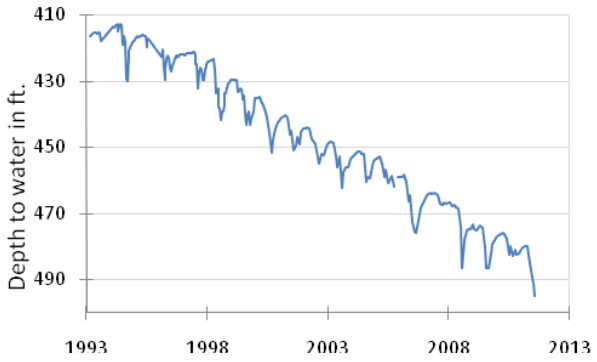
(3) State Well ID 27-39-903
Northwest Martin County
Ogallala Aquifer



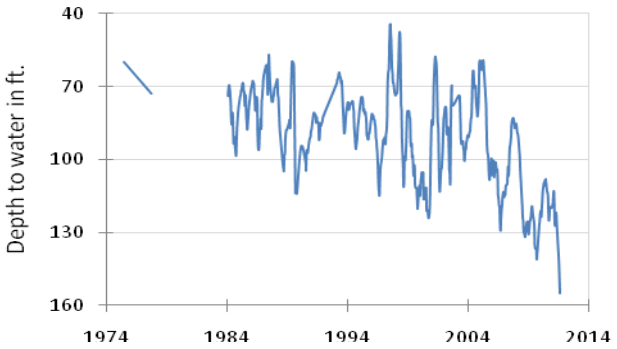
(4) State Well ID 32-15-504
Near Hurst, Tarrant County
Paluxy Formation-Trinity Aquifer



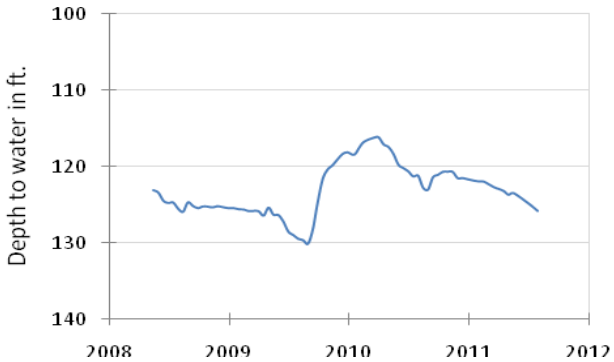
(5) State Well ID 40-35-404
Gatesville, Coryell County
Hosston Formation-Trinity Aquifer



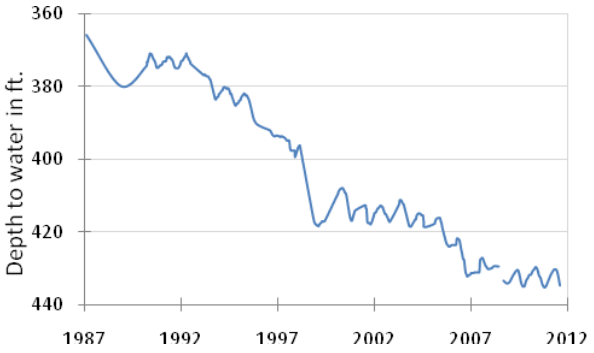
(6) State Well ID 68-02-609
Waring, Kendall County
Cow Creek Formation-Trinity Aquifer



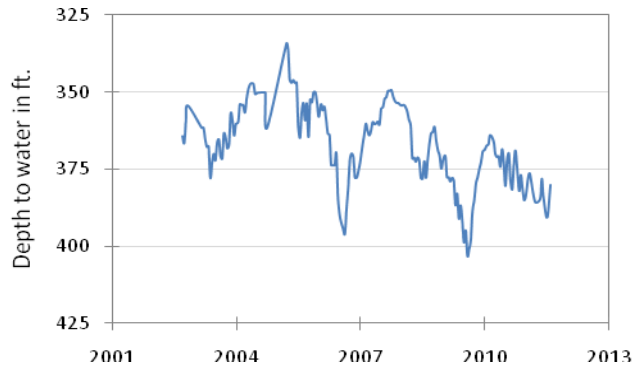
(7) State Well ID 58-04-816
Near Salado, Bell County
Edwards (BFZ) Aquifer



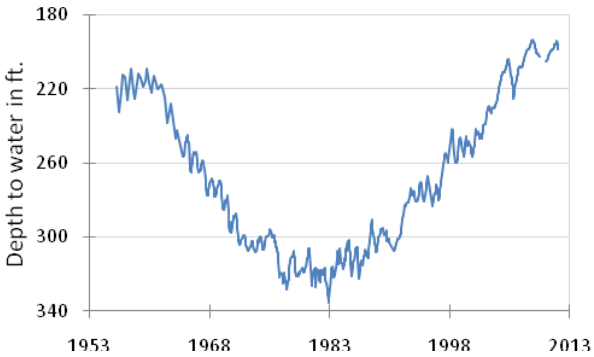
(9) State Well ID 34-30-907
Red Springs, Smith County
Carrizo-Wilcox Aquifer



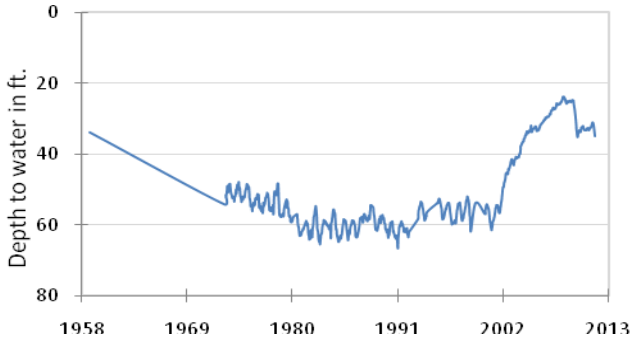
(10) State Well ID 77-02-509
La Pryor, Zavala County
Carrizo-Wilcox Aquifer



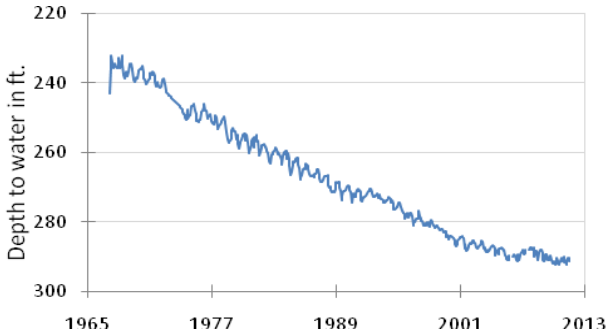
(11) State Well ID 65-14-409
Alief, Harris County
Evangeline Formation-Gulf Coast Aquifer



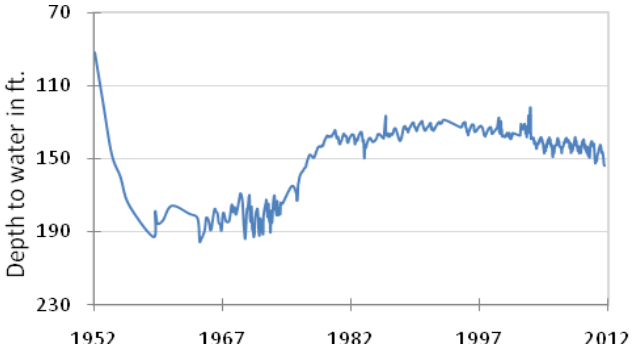
(12) State Well ID 80-17-502
Near Bloomington, Victoria County
Lissie Formation-Gulf Coast Aquifer



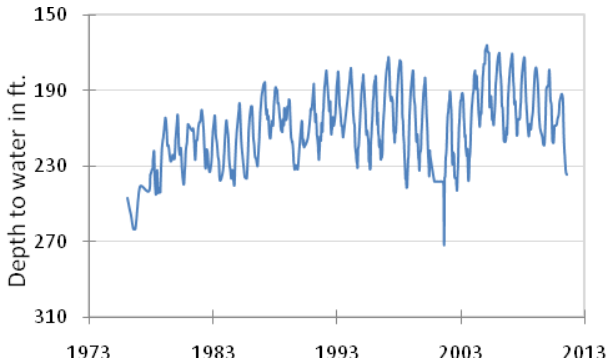
(13) State Well ID 49-13-301
El Paso, El Paso County
Hueco-Mesilla Bolson Aquifer



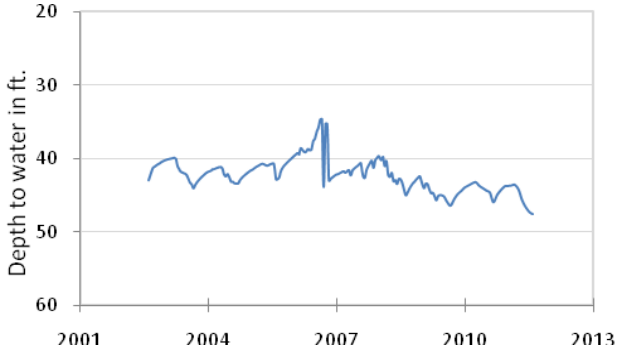
(14) State Well ID 46-44-501
Near Pecos, Reeves County
Pecos Valley Aquifer



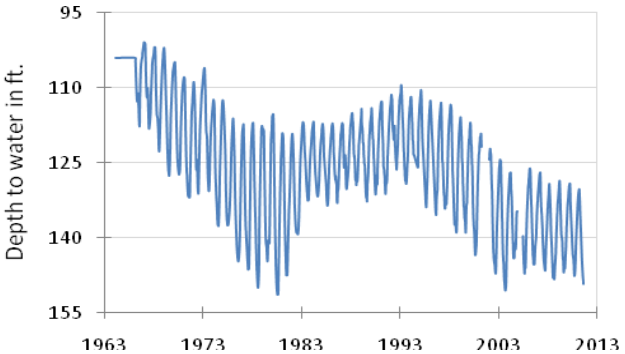
(15) State Well ID 52-16-802
Fort Stockton, Pecos County
Edwards-Trinity (Plateau) Aquifer



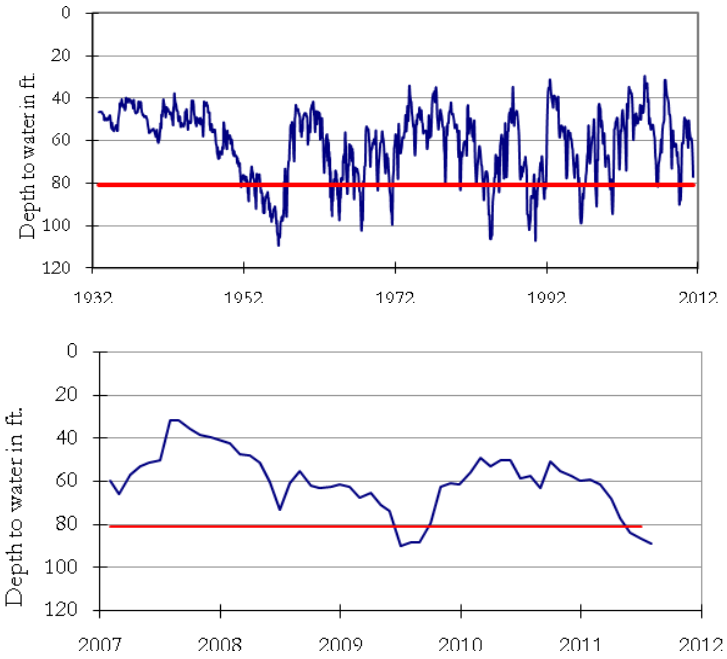
(16) State Well ID 21-35-748
Near O'Brien, Haskell County
Seymour Aquifer



(17) State Well ID 48-07-516
Dell City, Hudspeth County
Bone Spring - Victorio Peak Aquifer



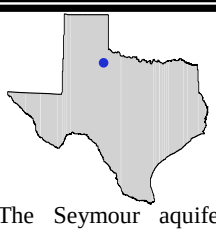
(8) State Well ID 68-37-203 (J-17)
In San Antonio, Bexar County
Edwards (BFZ) Aquifer



The late July water level measurement in this Edwards (BFZ) Aquifer well, elevation 731 feet above sea level, was 88.88 feet below land surface. This was 2.04 feet below last month's measurement, 31.44 feet below last year's measurement, and 42.24 feet below the initial measurement recorded in 1932.

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

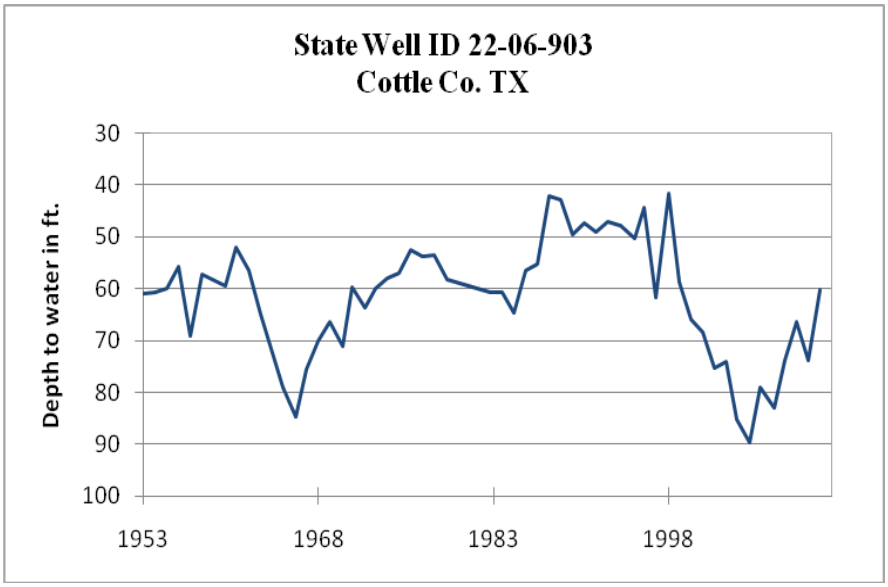
HYDROGRAPH OF THE MONTH



Each month this space features a new hydrograph (marked with the • symbol on the map) depicting different aquifers and different conditions in Texas.

Seymour Aquifer

The Seymour aquifer occurs in isolated patches of alluvium in parts of 23 north-central and Panhandle counties in the state. The patches of aquifer are the scattered erosional remnants of the Seymour Formation which is composed of poorly sorted gravel, conglomerate, sand, and silty clay deposited in the Pleistocene by streams flowing off distant mountains to the west. The eastward-flowing streams carried fluvial debris that buried the eroded surface of low permeability Permian Clear-Fork-Group redbeds and clays, filling channels and valleys with coarse gravels and sands. Wells in the Seymour average 40 to 60 feet deep, and typically yield around 270 gallons per minute (GPM) ranging up to 1,300 GPM. Water in the aquifer generally is unconfined; however, it may be confined locally by beds of clay. Recharge is mainly by direct infiltration of rainfall. Concentrations of dissolved solids range from 300 to 3,000 milligrams per liter (mg/l); most values are between 400 and 1,000 mg/l. Throughout its extent, the aquifer is affected by nitrate in excess of drinking water standards due to agricultural irrigation and infiltration of surface contaminants.



TEXAS WATER DEVELOPMENT BOARD
1700 N. CONGRESS AVE.
P.O. BOX 13231
AUSTIN TX 78711-3231