Texas Water Development Board

WATER Conditions

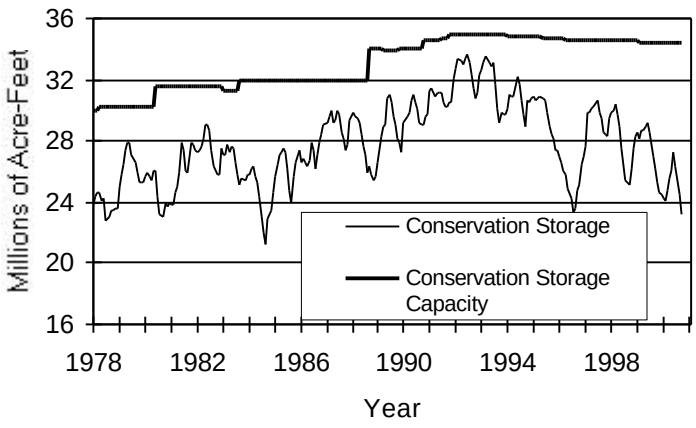
RESERVOIR STORAGE

September 2000

Near the end of September, the 77 reservoirs monitored for this report held 23.1 million acre-feet in conservation storage, or 67.1 percent of the conservation storage capacity of the State's major reservoirs. This is the second-lowest percentage of capacity recorded in 23 years. The record low occurred in September 1984. Storage decreased by 1.31 million acre-feet (-3.8% of conservation storage capacity) during the month. Compared to September 1999, storage is down 3.02 million acre-feet (-8.8%).

Conservation storage decreased during the month in all regions, with greatest percentage decreases occurring in the Upper Coast (-5.0%), North Central (-4.4%), and East (-4.3%) regions. The Southern region (-1.6%) experienced the smallest loss in conservation storage. Two monitored reservoirs (Cooper Lake and Wright Patman Lake), held 100 percent of conservation storage near the end of September, and two (Twin Buttes Reservoir, 0.2%, and O.C. Fisher, 5.7%) held less than 10%.

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.

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)

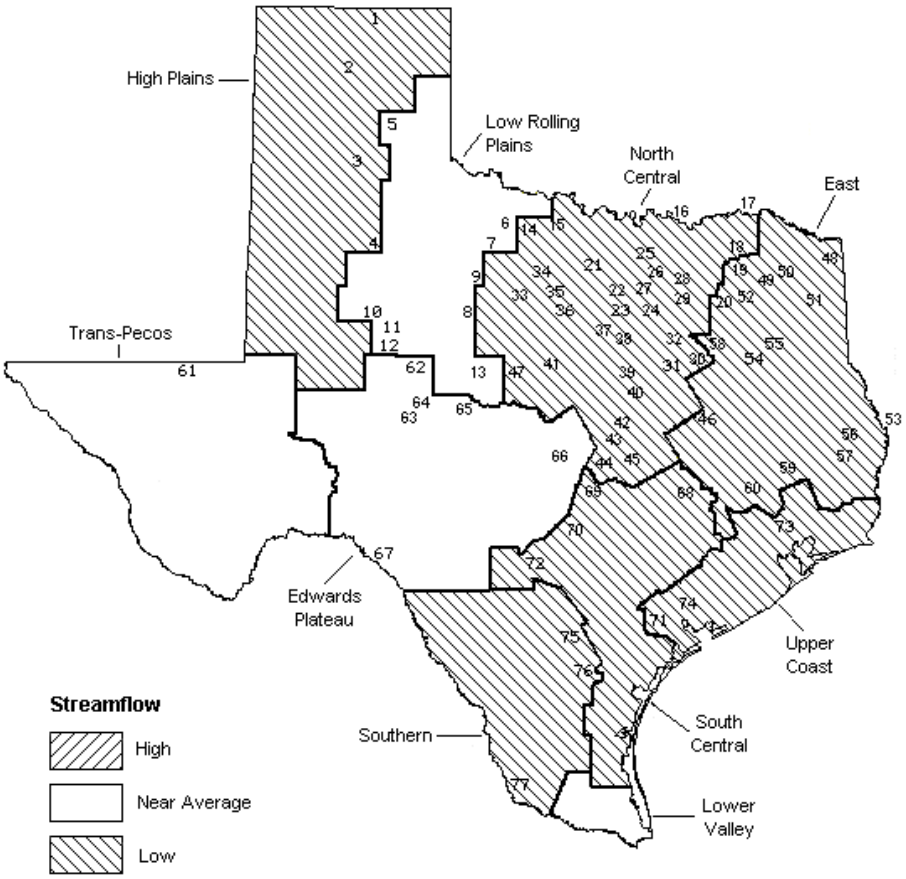
STREAMFLOW

Of 29 reporting index stations in September, computed 30-day mean flows were high (5% - 30% exceedance) at 1 station, near normal (30% - 70% exceedance) at 8 stations, low (70% - 95% exceedance) at 15 stations, and very low (95% - 100% exceedance) at 5 stations. The High Plains, East, South Central, and Upper Coast regions all have one or more stations reporting very low flow conditions. The lone station reporting high-flows this month was the Salt Fork Red River near Wellington in the Low Rolling Plains. In comparison to August, flows decreased at 13 index stations, increased at 12, and remained the same, with no flow recorded, at 3.

Flows in September were near normal only in the Low Rolling Plains and Edwards Plateau, and Trans-Pecos regions, and were below normal elsewhere. All reporting index stations in the East regions reported low or very low flows. Six stations reported zero flows in September.

SEPTEMBER STREAMFLOW CONDITIONS

Reservoirs Shown on Map



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

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late September 2000 (acre-feet)	(%)	Change since Late August 2000 (acre-feet)	(%)	Change since Late September 1999 (acre-feet)	(%)
HIGH PLAINS								
Palo Duro Reservoir	1	60,900	15,750	26	-1,980	-3	-8,152	-13
Lake Meredith (Texas)	2	500,000	336,700	67	-18,000	-4	-77,200	-15
Lake Meredith (Texas and Oklahoma)	(2)	779,560	336,700	43	-18,000	-2	-77,200	-10
MacKenzie Reservoir	3	46,250	8,230	18	-320	-1	-2,130	-5
White River Lake	4	31,850	12,140	38	-940	-3	-6,130	-19
TOTAL		639,000	372,820	58	-21,240	-3	-93,612	-15
LOW ROLLING PLAINS								
Greenbelt Reservoir	5	58,200	23,320	40	-1,340	-2	-3,170	-5
Lake Kemp	6	319,600	101,300	32	-17,800	-6	-63,600	-20
Miller's Creek Reservoir	7	27,890	6,400	23	-850	-3	-6,010	-22
Fort Phantom Hill Reservoir	8	70,030	22,340	32	-1,470	-2	520	1
Lake Stamford	9	52,700	7,160	14	-1,170	-2	-440	-1
Lake J. B. Thomas	10	202,300	26,920	13	-3,190	-2	-5,720	-3
Lake Colorado City	11	30,800	22,100	72	-1,540	-5	10,320	34
Champion Creek Reservoir	12	41,600	4,380	11	-290	-1	-1,740	-4
Hords Creek Lake	13	8,600	3,430	40	-230	-3	-557	-6
TOTAL		811,720	217,350	27	-27,880	-3	-70,397	-9
NORTH CENTRAL								
Lake Kickapoo	14	106,000	38,740	37	-4,040	-4	-17,976	-17
Lake Arrowhead	15	262,100	91,300	35	-7,440	-3	-54,000	-21
Lake Texoma	16	2,722,300	2,243,000	82	-157,685	-6	-163,787	-6
Pat Mayse Lake	17	124,500	106,500	86	-4,690	-4	790	1
Cooper Lake	18	273,000	273,000	100	0	0	46,716	17
Lake Sulphur Springs	19	17,710	15,360	87	-855	-5	809	5
Lake Tawakoni	20	936,200	850,600	91	-40,300	-4	21,000	2
Bridgeport Reservoir	21	374,830	172,525	46	-15,150	-4	-91,463	-24
Eagle Mountain Reservoir	22	178,380	101,900	57	-8,728	-5	-36,267	-20
Benbrook Lake	23	88,200	50,910	58	-11,070	-13	-8,565	-10
Joe Pool Lake	24	175,800	161,400	92	-6,200	-4	-318	0
Ray Roberts Lake	25	798,760	415,900	52	-36,721	-5	-237,991	-30
Lewisville Lake	26	555,000	310,400	56	-9,500	-2	-46,370	-8
Grapevine Lake	27	187,700	109,500	58	-6,500	-3	-31,205	-17
Lavon Lake	28	443,800	325,900	73	-31,575	-7	5,973	1
Lake Ray Hubbard	29	413,420	313,000	76	-24,200	-6	-100,420	-24
Richland-Chambers Creek Lake	30	1,103,820	1,031,000	93	-34,005	-3	12,965	1
Navarro Mills Lake	31	55,810	46,710	84	-1,881	-3	2,571	5
Bardwell Lake	32	53,580	46,210	86	-2,330	-4	1,739	3
Hubbard Creek Reservoir	33	317,800	143,800	45	-9,600	-3	-78,500	-25
Lake Graham	34	45,000	29,960	67	-2,220	-5	-14,270	-32
Possum Kingdom Lake	35	551,820	429,800	78	-26,900	-5	-16,200	-3
Lake Palo Pinto	36	27,650	7,490	27	-2,170	-8	-26,352	-95
Lake Granbury	37	135,680	116,700	86	-2,770	-2	-14,387	-11
Lake Pat Cleburne	38	25,300	20,400	81	-1,729	-7	1,430	6
Whitney Lake	39	622,800	484,000	78	-38,100	-6	51,849	8
Waco Lake	40	144,500	130,500	90	-4,200	-3	4,920	3
Proctor Lake	41	55,590	7,280	13	-1,890	-3	-17,324	-31
Belton Lake	42	434,500	368,700	85	-6,400	-1	-33,430	-8
Stillhouse Hollow Lake	43	226,060	204,800	91	-472	0	-12,862	-6
Lake Georgetown	44	37,010	14,990	41	-2,600	-7	-16,810	-45
Granger Lake	45	54,280	45,150	83	-1,570	-3	-5,133	-9
Lake Limestone	46	215,750	186,500	86	-10,100	-5	-1,700	-1
Lake Brownwood	47	143,400	82,790	58	-5,970	-4	-10,000	-7
TOTAL		11,908,050	8,976,715	75	-519,561	-4	-884,568	-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 September 2000 (acre-feet)	(%)	Change since Late August 2000 (acre-feet)	(%)	Change since Late September 1999 (acre-feet)	(%)
EAST								
Wright Patman Lake	48	142,700	142,700	100	0	0	0	0
Lake Cypress Springs	49	66,800	63,730	95	-1,530	-2	-3,070	-5
Lake Bob Sandlin	50	202,300	192,600	95	-9,700	-5	13,855	7
Lake O' the Pines	51	252,000	246,500	98	-5,500	-2	85	0
Lake Fork Reservoir	52	635,200	619,700	98	-15,500	-2	10,200	2
Toledo Bend Reservoir	53	4,472,900	3,662,000	82	-279,000	-6	31,000	1
Lake Palestine	54	411,300	355,000	86	-19,200	-5	-13,600	-3
Lake Tyler	55	73,700	55,110	75	-5,389	-7	-18,590	-25
Sam Rayburn Reservoir	56	2,876,300	2,045,000	71	-84,000	-3	-315,819	-11
B. A. Steinhagen Lake	57	94,200	86,980	92	689	1	-1,886	-2
Cedar Creek Reservoir	58	637,050	537,500	84	-57,183	-9	-79,322	-12
Lake Livingston	59	1,750,000	1,611,000	92	-36,000	-2	-73,000	-4
Lake Conroe	60	429,900	348,400	81	-4,600	-1	-40,200	-9
TOTAL		12,044,350	9,966,220	83	-516,913	-4	-490,347	-4
TRANS-PECOS								
Red Bluff Reservoir	61	307,000	47,060	15	-5,280	-2	-31,960	-10
TOTAL		307,000	47,060	15	-5,280	-2	-31,960	-10
EDWARDS PLATEAU								
E. V. Spence Reservoir	62	488,760	83,980	17	-5,170	-1	17,200	4
Twin Buttes Reservoir	63	177,800	354	0	-759	0	-9,816	-6
O.C. Fisher Lake	64	119,200	6,840	6	-1,040	-1	-2,183	-2
O. H. Ivie Reservoir	65	554,340	288,000	52	-13,700	-2	-61,300	-11
Lake Buchanan	66	896,980	432,500	48	-66,800	-7	-285,339	-32
Amistad Reservoir (Texas)	67	1,771,030	835,000	47	-28,000	-2	-230,000	-13
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	995,000	32	-34,000	-1	-381,000	-12
TOTAL		4,008,110	1,646,674	41	-115,469	-3	-571,438	-14
SOUTH CENTRAL								
Somerville Lake	68	155,060	101,900	66	-3,579	-2	-41,028	-26
Lake Travis	69	1,144,100	582,600	51	-29,600	-3	-358,557	-31
Canyon Lake	70	385,600	334,700	87	-1,943	-1	-34,278	-9
Coleto Creek Reservoir	71	35,060	23,980	68	-1,930	-6	-2,760	-8
Medina Lake	72	254,000	105,600	42	-12,200	-5	-121,000	-48
TOTAL		1,973,820	1,148,780	58	-49,252	-2	-557,623	-28
UPPER COAST								
Lake Houston	73	128,860	103,700	80	-2,900	-2	-6,400	-5
Lake Texana	74	157,900	119,200	75	-11,300	-7	-17,100	-11
TOTAL		286,760	222,900	78	-14,200	-5	-23,500	-8

.

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

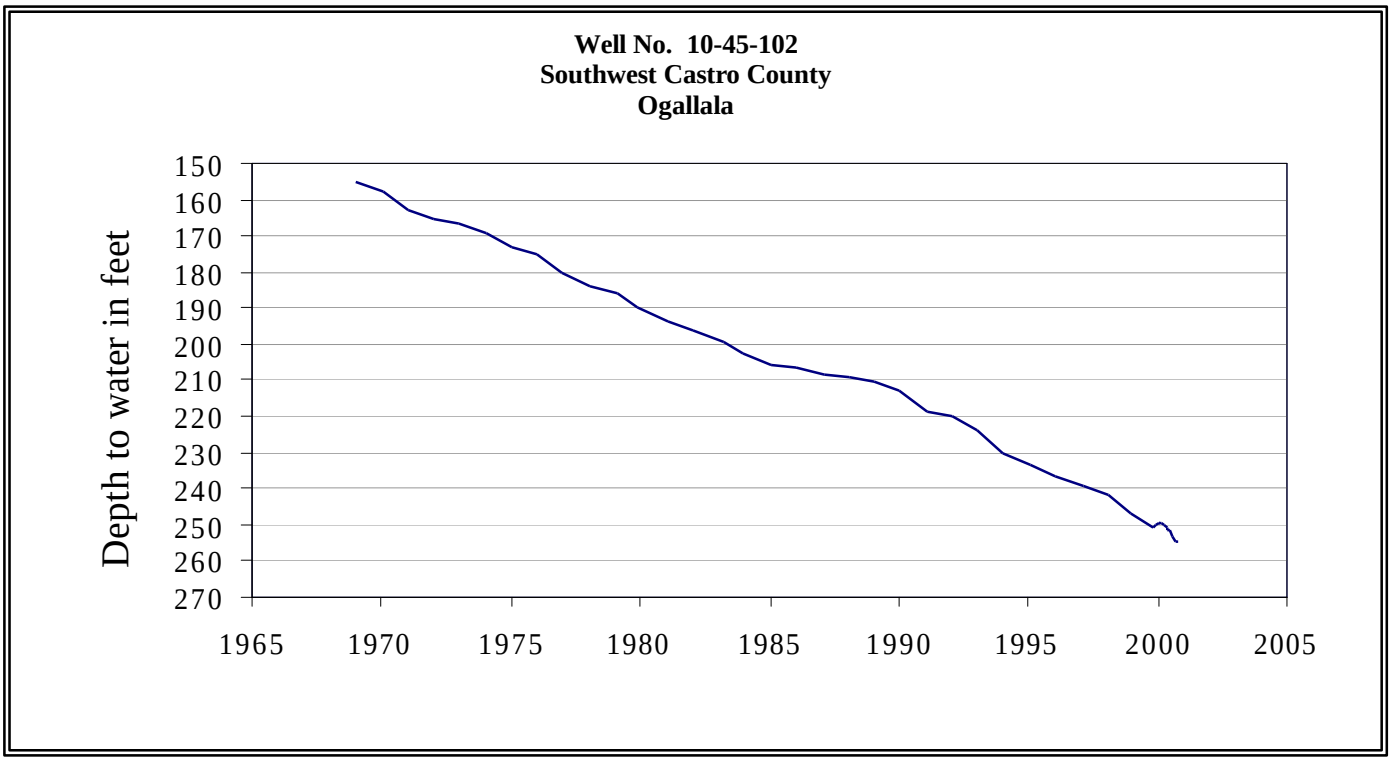
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late September 2000 (acre-feet)	(%)	Change since Late August 2000 (acre-feet)	(%)	Change since Late September 1999 (acre-feet)	(%)
SOUTHERN								
Choke Canyon Reservoir	75	695,260	238,000	34	-10,000	-1	-81,945	-12
Lake Corpus Christi	76	241,240	69,190	29	-13,800	-6	-114,643	-48
Falcon Reservoir (Texas)	77	1,555,120	240,000	15	-16,000	-1	-101,000	-6
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	274,000	10	-21,000	-1	-370,000	-14
TOTAL		2,491,620	547,190	22	-39,800	-2	-297,588	-12
STATE TOTAL		34,470,430	23,145,709	67	-1,309,595	-4	-3,021,033	-9

Note:

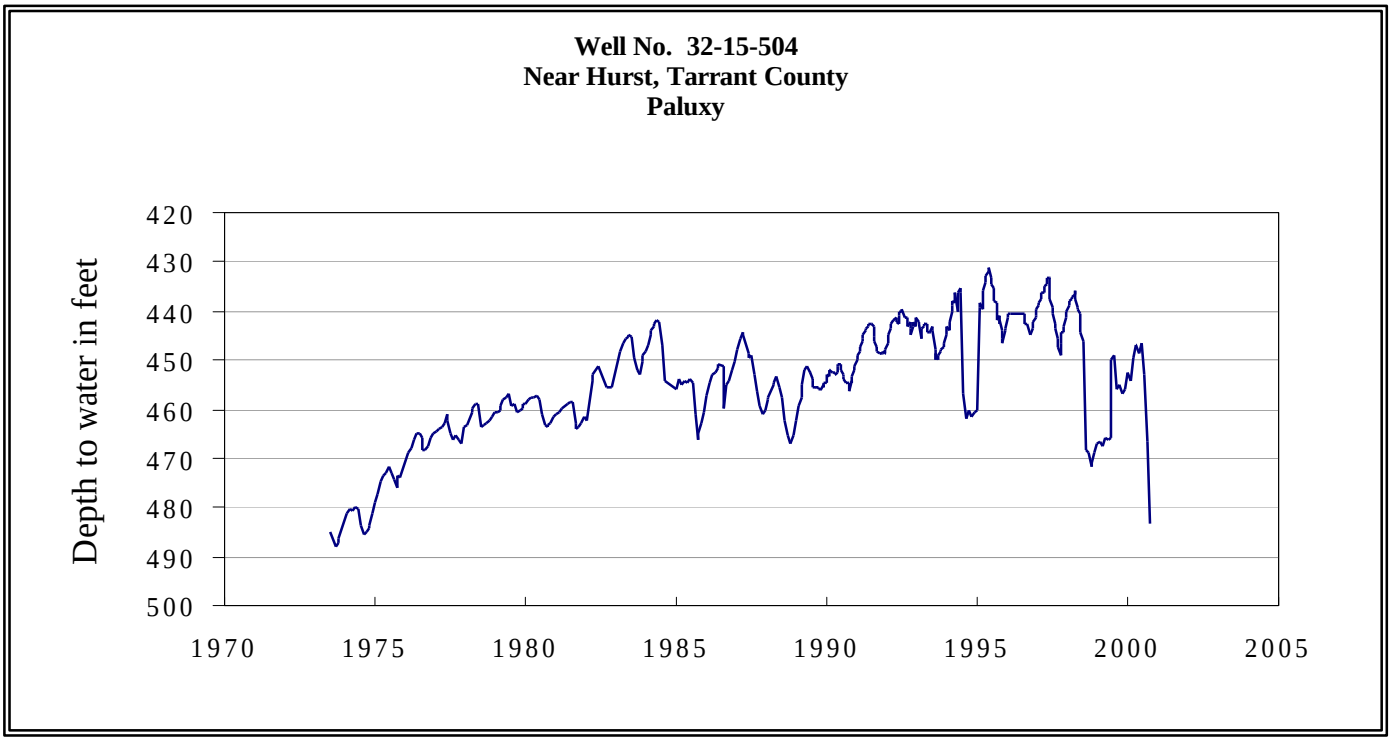
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included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

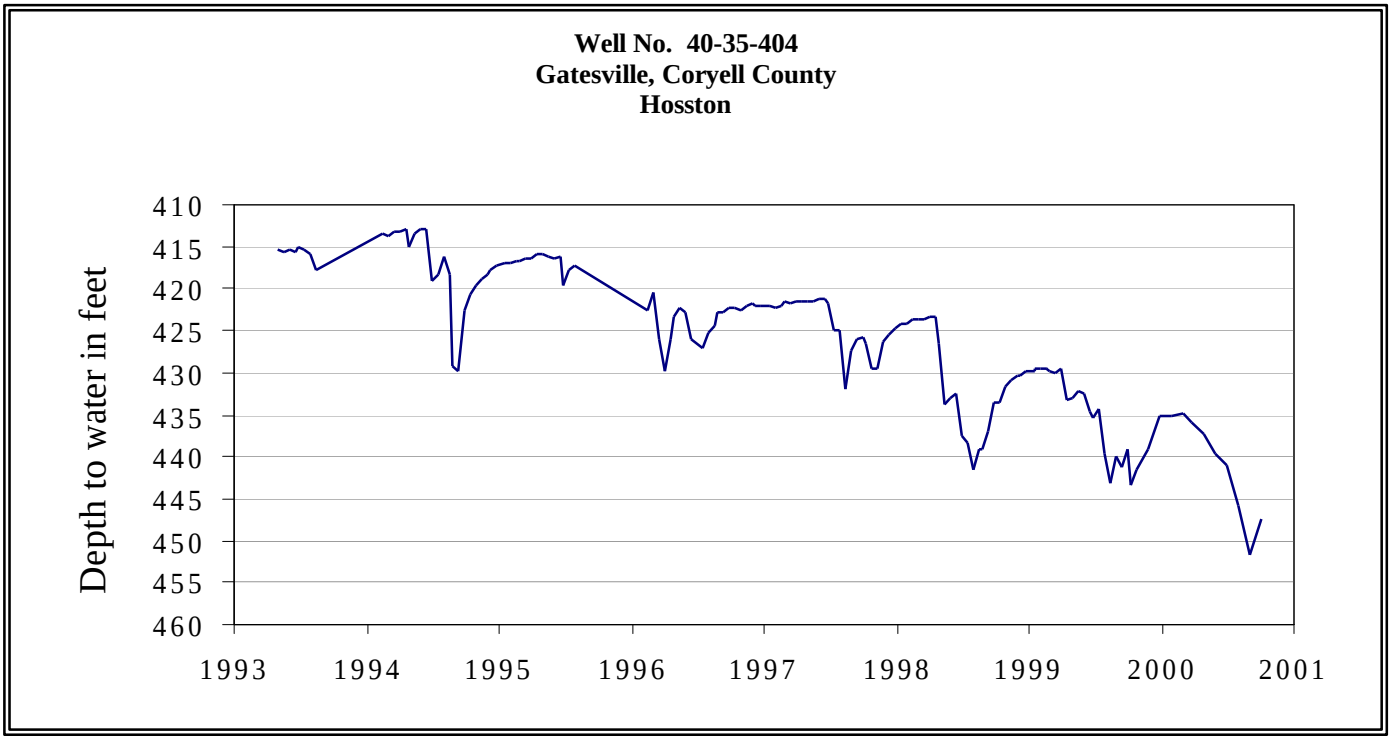
SEPTEMBER GROUND WATER LEVELS IN OBSERVATION WELLS



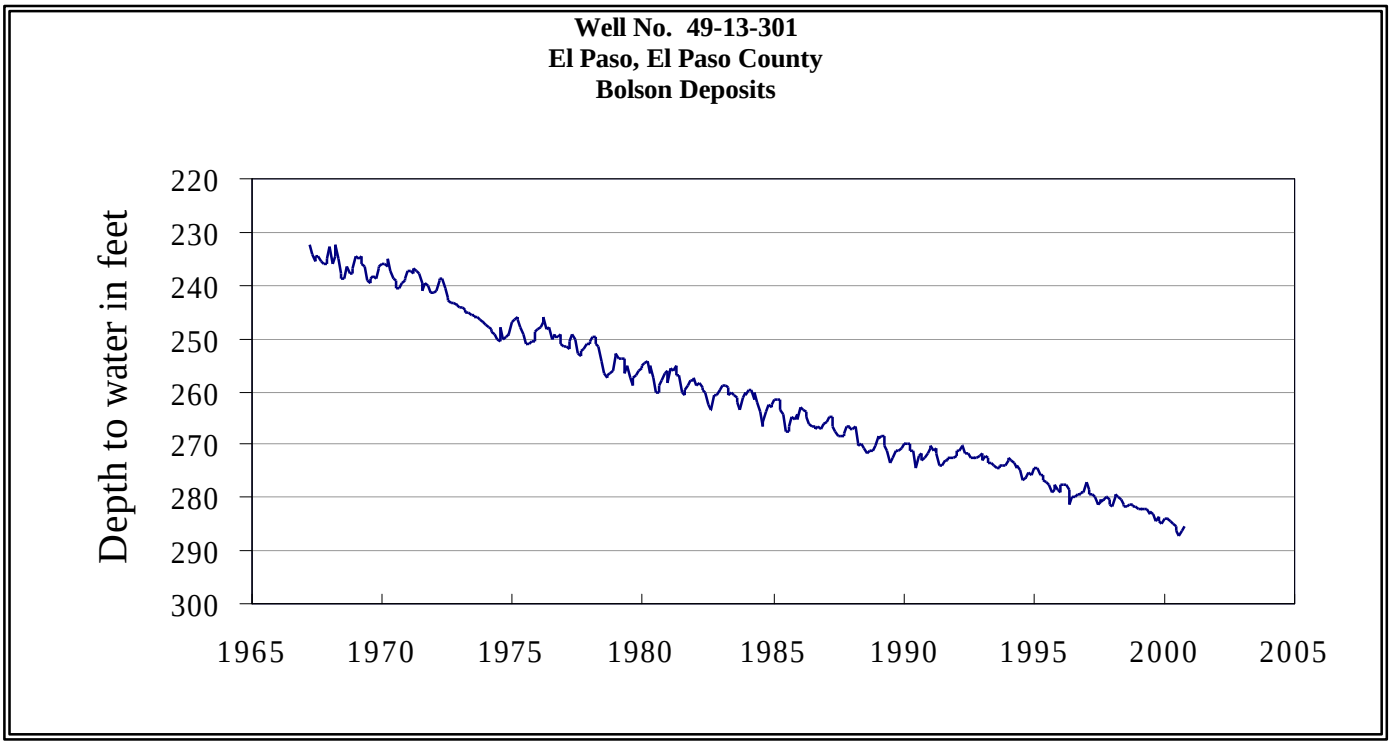
The late September water-level measurement in this Ogallala aquifer well, elevation 3,816 feet above sea level, was 254.8 feet below land surface. This measurement was 1.2 feet below last month's measurement and 98.8 feet below the initial measurement recorded in 1968.



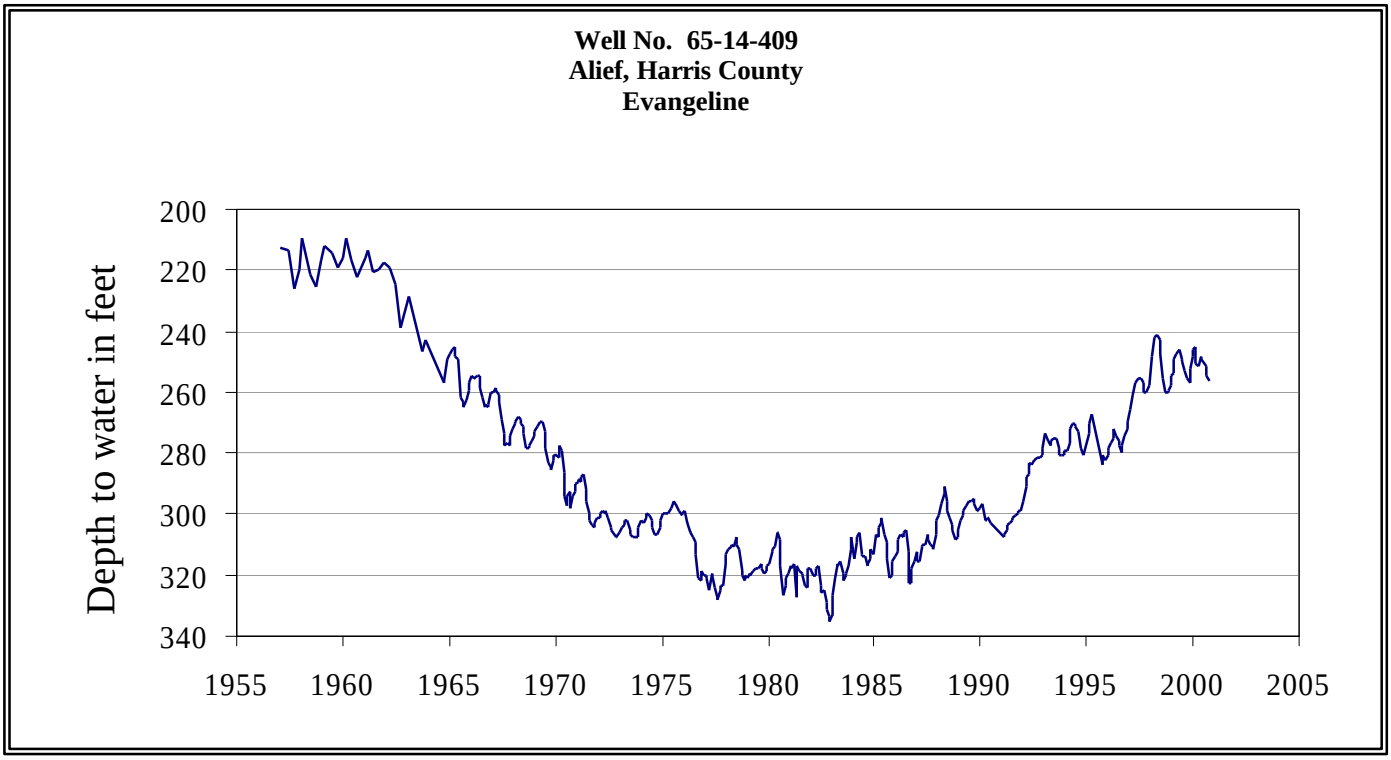
The late September water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 466.46 feet below land surface. This measurement was 13.8 feet below last month's measurement, 10.07 feet above last year's measurement, and 73.32 feet below the initial measurement recorded in 1953.



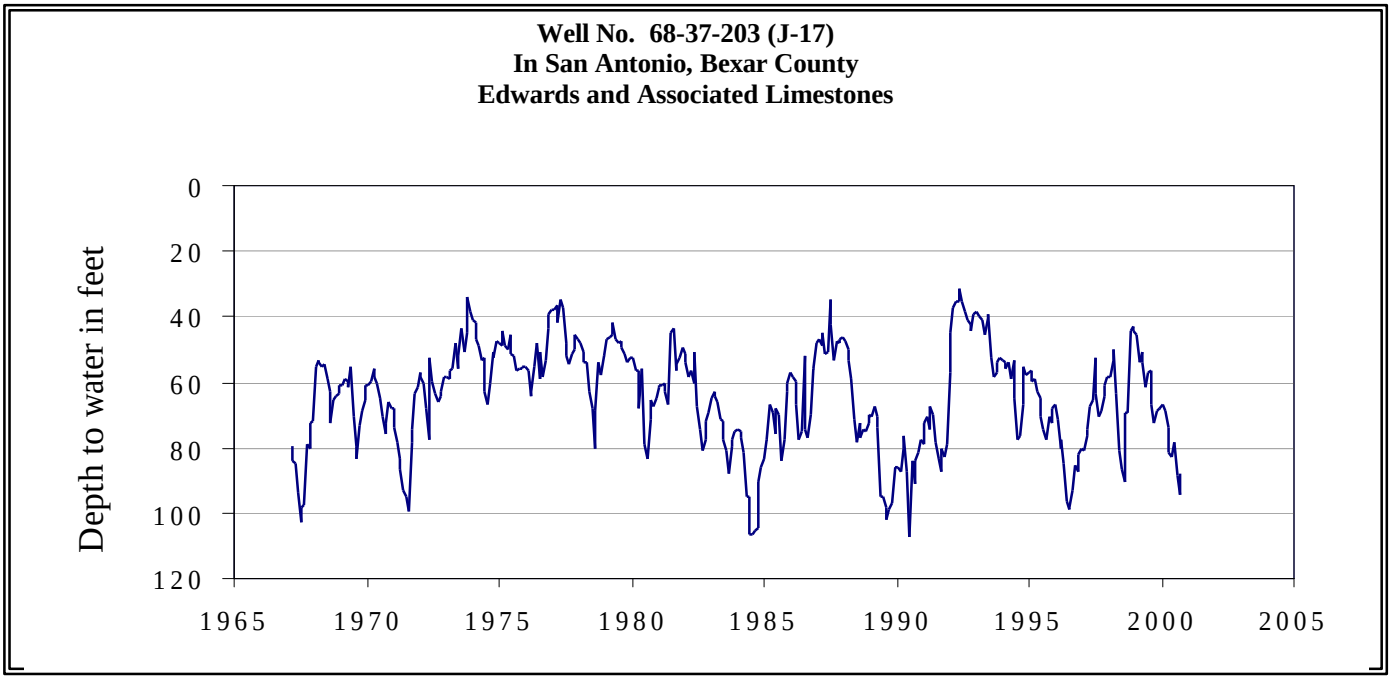
The late September water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 451.66 feet below land surface. This measurement was 1.91 feet below last month's measurement, 8.04 feet below last year's measurement, and 155.66 feet below the initial measurement recorded in 1955.



The late September water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 286.29 feet below land surface. This was 0.84 feet above last month's measurement, 2.01 feet below last year's measurement, and 54.39 feet below the initial measurement recorded in 1964.

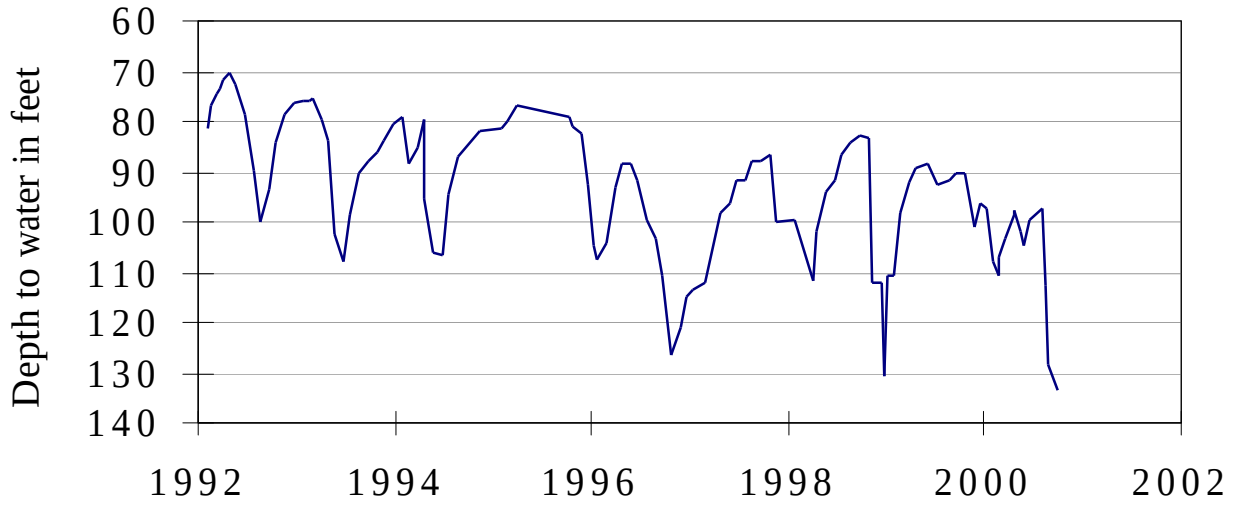


The late September water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 254.42 feet below land surface. This was 3.3 feet below last month's measurement, 1.32 feet below last year's measurement, and 151.19 feet below the initial measurement recorded in 1947.



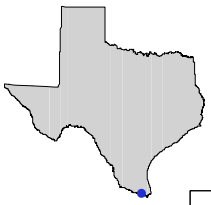
The late September water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 94.65 feet below land surface. This was 6.32 feet below last month's measurement, 27.65 feet below last year's measurement, and 35.03 feet below the initial measurement recorded in 1962.

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



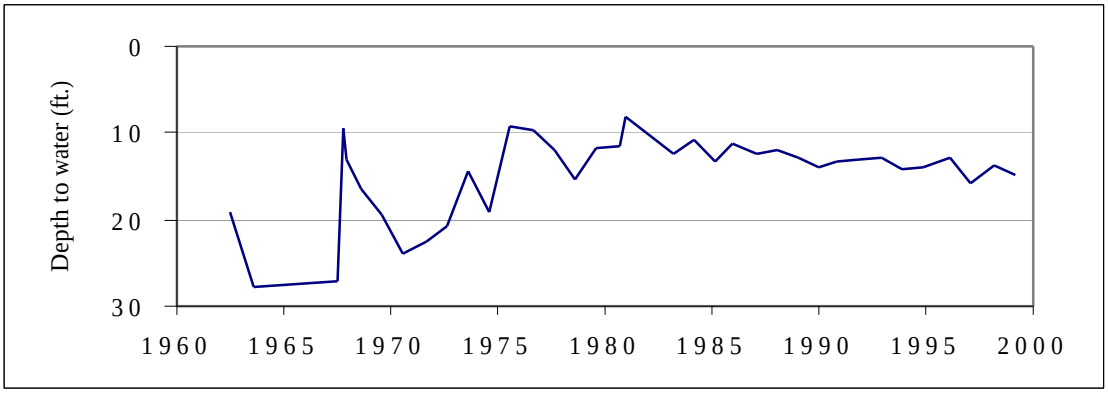
The late September water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 128.28 feet below land surface. This measurement was 15.5 feet below last month's measurement, 36.48 feet above last year's measurement, and 47.03 feet below the initial measurement recorded 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 87-55-701
Hidalgo County



This 234-foot deep unused well, located approximately 3 miles south of McAllen at an elevation of 95 feet above sea level, was completed in the Gulf Coast aquifer. The 1967 spike reflects torrential rains (10-20 inches) associated with hurricane Beulah which made landfall near Brownsville on September 20, 1967.