

08064550 Richland-Chambers Reservoir near Kerens, TX

Upper Trinity Basin
Chambers Subbasin

LOCATION.--Lat 32°02'25", long 96°12'23" referenced to North American Datum of 1927, Navarro County, TX, Hydrologic Unit 12030109, on upper floor of pump house, on left bank of Chambers Creek arm of Richland-Chambers Reservoir, 7.0 mi south of intersection of State Highway 31 and Farm Road 309 in Kerens, and 14.4 mi upstream from dam on Richland Creek.

DRAINAGE AREA.--1,957 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Nov. 1988 to current year.

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: Sept. 1996.

BIOLOGICAL DATA: Sept. 1996.

PESTICIDE DATA: Sept. 1996.

RADIOCHEMICAL DATA: Sept. 1996.

GAGE.--Water-stage recorder. Datum of gage is 0.70 ft above NGVD of 1929 (levels by Tarrant Regional Water District). Satellite telemeter at station.

COOPERATION.--Capacity Table No. 1-C was prepared by Freese and Nichols, consulting engineers for Tarrant Regional Water District. Capacity Table No. 2-C, provided by the Texas Water Development Board, was put into use Oct. 1, 1995. Capacity Table No. 3-C, from a survey performed by the Texas Water Development Board, was put into use beginning Oct. 1, 2009.

REMARKS.--Records good except those for July to Sept., which are fair. Some records listed in the Period of Record for surface water and water quality may not be available electronically. The reservoir is formed by a rolled earthfill dam 31,000 ft long. Deliberate impoundment of water began July 14, 1987, and the dam was completed in Dec. 1988. A gated concrete spillway is located near the left end of dam. The spillway is 1,155 ft long and contains twenty-four 40- by 29.4-ft radial gates. The low flow outlet works consist of two 3- by 5-ft outlets at elevation 266.0 ft, one 1.5- by 2.5-ft outlet, and one 1- by 1-ft outlet at elevation 285.0 ft. Each of the low flow outlets are controlled by sluice gates. The dam is owned by the Tarrant Regional Water District, and was built for municipal and industrial water supply and for recreation. Flow from 464 mi² above the dam is controlled by Bardwell and Navarro Mills Lakes. Conservation pool storage is 1,112,763 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,267,000 acre-ft, Dec. 22, 1991, elevation 316.85 ft; minimum contents after initial filling, 707,800 acre-ft, Dec. 29, 2006, elevation, 303.59 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,074,000 acre-ft, Oct. 1, gage height, 314.07 ft; minimum contents, 825,900 acre-ft, Sept. 30, gage height, 307.81 ft.

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RESERVOIR STORAGE, ACRE FEET
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|----------|----------|---------|
| 1 | 1,073,000 | 1,048,000 | 1,025,000 | 1,004,000 | 1,039,000 | 1,035,000 | 1,016,000 | 1,005,000 | 986,800 | 962,300 | 921,700 | 871,800 |
| 2 | 1,072,000 | 1,048,000 | 1,024,000 | 1,003,000 | 1,037,000 | 1,035,000 | 1,015,000 | 1,004,000 | 986,000 | 961,400 | 920,400 | 870,100 |
| 3 | 1,069,000 | 1,047,000 | 1,023,000 | 1,003,000 | 1,036,000 | 1,035,000 | 1,016,000 | 1,003,000 | 985,000 | 960,300 | 918,900 | 867,700 |
| 4 | 1,068,000 | 1,046,000 | 1,022,000 | 1,002,000 | 1,037,000 | 1,035,000 | 1,015,000 | 1,002,000 | 983,800 | 959,100 | 917,400 | 864,200 |
| 5 | 1,067,000 | 1,045,000 | 1,020,000 | 1,001,000 | 1,037,000 | 1,034,000 | 1,013,000 | 1,001,000 | 982,800 | 957,800 | 915,700 | 861,700 |
| 6 | 1,066,000 | 1,044,000 | 1,020,000 | 1,001,000 | 1,036,000 | 1,033,000 | 1,013,000 | 1,001,000 | 981,600 | e957,000 | 914,100 | 860,400 |
| 7 | 1,065,000 | 1,043,000 | 1,019,000 | 1,000,000 | 1,035,000 | 1,033,000 | 1,012,000 | 1,001,000 | 980,900 | e955,800 | 912,400 | 859,100 |
| 8 | 1,064,000 | 1,043,000 | 1,018,000 | 999,200 | 1,035,000 | 1,032,000 | 1,011,000 | 999,600 | 979,900 | 954,500 | 910,700 | 856,800 |
| 9 | 1,063,000 | 1,042,000 | 1,018,000 | 1,003,000 | 1,035,000 | 1,032,000 | 1,011,000 | 999,100 | 978,500 | 953,200 | 908,900 | 855,300 |
| 10 | 1,062,000 | 1,041,000 | 1,017,000 | 1,006,000 | 1,034,000 | 1,031,000 | 1,011,000 | 998,000 | 977,000 | 951,600 | 906,800 | 854,100 |
| 11 | 1,061,000 | 1,040,000 | 1,016,000 | 1,008,000 | 1,034,000 | 1,031,000 | 1,010,000 | 998,200 | 975,900 | 950,100 | e905,400 | 852,400 |
| 12 | 1,060,000 | 1,041,000 | 1,015,000 | 1,009,000 | 1,033,000 | 1,030,000 | 1,009,000 | 1,004,000 | 974,800 | 948,900 | 903,600 | 850,900 |
| 13 | 1,059,000 | 1,040,000 | 1,014,000 | 1,009,000 | 1,033,000 | 1,029,000 | 1,008,000 | 1,003,000 | 973,500 | 947,700 | 901,900 | 849,700 |
| 14 | 1,058,000 | 1,039,000 | 1,013,000 | 1,009,000 | 1,032,000 | 1,028,000 | 1,008,000 | 1,001,000 | 972,500 | 946,400 | 900,200 | 848,000 |
| 15 | 1,057,000 | 1,038,000 | 1,013,000 | 1,009,000 | 1,032,000 | 1,028,000 | 1,008,000 | 1,000,000 | 970,600 | 944,900 | 899,000 | 846,000 |
| 16 | 1,056,000 | 1,037,000 | 1,012,000 | 1,015,000 | 1,032,000 | 1,027,000 | 1,005,000 | 998,900 | 969,800 | 943,400 | 897,500 | 844,600 |
| 17 | 1,055,000 | 1,036,000 | 1,010,000 | 1,023,000 | 1,033,000 | 1,028,000 | 1,004,000 | 997,900 | 968,800 | 942,100 | 895,600 | 843,700 |
| 18 | 1,054,000 | 1,034,000 | 1,010,000 | 1,031,000 | 1,033,000 | 1,027,000 | 1,003,000 | 997,400 | 966,800 | 940,800 | 894,200 | 842,500 |
| 19 | 1,054,000 | 1,034,000 | 1,009,000 | 1,035,000 | 1,033,000 | 1,026,000 | 1,003,000 | 996,300 | 965,200 | 939,600 | 892,600 | 843,800 |
| 20 | 1,053,000 | 1,033,000 | 1,009,000 | 1,037,000 | 1,033,000 | 1,026,000 | 1,001,000 | 996,300 | 963,300 | 938,400 | 891,200 | 842,300 |
| 21 | 1,052,000 | 1,033,000 | 1,009,000 | 1,038,000 | 1,033,000 | 1,025,000 | 1,001,000 | 998,500 | 960,500 | 937,200 | 889,700 | 840,900 |
| 22 | 1,051,000 | 1,032,000 | 1,007,000 | 1,039,000 | 1,032,000 | 1,026,000 | 1,001,000 | 998,200 | 969,500 | 935,700 | 888,200 | 839,500 |
| 23 | 1,052,000 | 1,032,000 | 1,006,000 | 1,039,000 | 1,032,000 | 1,024,000 | 999,900 | 997,700 | 970,500 | 934,000 | 886,500 | 837,900 |
| 24 | 1,057,000 | 1,032,000 | 1,006,000 | 1,038,000 | 1,034,000 | 1,022,000 | 998,900 | 996,700 | 970,300 | 932,300 | 884,800 | 836,800 |
| 25 | 1,057,000 | 1,031,000 | 1,007,000 | 1,038,000 | 1,034,000 | 1,022,000 | 999,100 | 995,600 | 969,800 | 930,700 | 883,300 | 835,200 |
| 26 | 1,056,000 | 1,029,000 | 1,006,000 | 1,038,000 | 1,033,000 | 1,022,000 | 1,003,000 | 993,400 | 968,700 | 929,100 | 881,700 | 832,900 |
| 27 | 1,054,000 | 1,028,000 | 1,006,000 | 1,038,000 | 1,034,000 | 1,020,000 | 1,007,000 | 992,700 | 967,300 | 927,600 | 880,000 | 832,500 |
| 28 | 1,052,000 | 1,027,000 | 1,005,000 | 1,037,000 | 1,035,000 | 1,019,000 | 1,007,000 | 992,200 | 965,700 | 926,400 | 878,400 | 831,200 |
| 29 | 1,051,000 | 1,027,000 | 1,006,000 | 1,037,000 | --- | 1,018,000 | 1,007,000 | 990,500 | 964,400 | 925,100 | 876,800 | 830,200 |
| 30 | 1,050,000 | 1,026,000 | 1,006,000 | 1,037,000 | --- | 1,017,000 | 1,006,000 | 988,900 | 963,300 | 923,900 | 875,000 | 827,800 |
| 31 | 1,049,000 | --- | 1,005,000 | 1,037,000 | --- | 1,016,000 | --- | 987,500 | --- | 922,700 | 873,500 | --- |
| Mean | 1,059,000 | 1,037,000 | 1,013,000 | 1,020,000 | 1,034,000 | 1,027,000 | 1,007,000 | 998,000 | 973,100 | 943,200 | 897,600 | 847,700 |
| Max | 1,073,000 | 1,048,000 | 1,025,000 | 1,039,000 | 1,039,000 | 1,035,000 | 1,016,000 | 1,005,000 | 986,800 | 962,300 | 921,700 | 871,800 |
| Min | 1,049,000 | 1,026,000 | 1,005,000 | 999,200 | 1,032,000 | 1,016,000 | 998,900 | 987,500 | 960,500 | 922,700 | 873,500 | 827,800 |

| | Calendar Year 2010 | Water Year 2011 |
|-------------|--------------------|-----------------|
| Mean | 1,089,000 | 988,000 |
| Max | 1,168,000 | 1,073,000 |
| Min | 1,005,000 | 827,800 |

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