



Water-Data Report 2007

07299840 Greenbelt Lake near Clarendon, TX

Salt Fork Red Basin
Upper Salt Fork Red Subbasin

LOCATION.--Lat 35°00'02", long 100°53'40" referenced to North American Datum of 1927, Donley County, TX, Hydrologic Unit 11120201, on upstream side near right end of dam on Salt Fork Red River and 4.3 mi north of Clarendon.

DRAINAGE AREA.--457 mi² of which 191 mi² probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Aug. 1967 to Sept. 2002 (daily mean contents), Oct. 2002 to current year (daily mean elevation). Prior to Oct. 1973, published as "Greenbelt Reservoir".

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Gage-height telemeter at station.

COOPERATION.--Capacity table provided by Greenbelt Municipal and Industrial Water Authority.

REMARKS.--Records good. The lake is formed by a rolled earthfill dam 5,800 ft long. Deliberate impoundment began Dec. 5, 1966, and the dam was completed in Aug. 1967. The dam is the property of Greenbelt Municipal and Industrial Water Authority and was built to impound water for municipal and industrial uses by the cities of Childress, Clarendon, Crowell, Hedley, and Quanah. The spillway is an uncontrolled open cut through natural ground, 1,450 ft wide and located at the left end of dam, designed to discharge 184,000 ft³/s at an elevation of 2,684.0 ft. A morning-glory-type drop inlet with a 26-ft 8.5-inch-diameter opening at crest discharges into a 7- by 7-ft concrete conduit. The outlet works consists of a 36-in pipe that is controlled by two 20-in valves that control the discharge into a stilling basin and to a water treatment plant. The capacity table, dated Apr. 1964, is based on U.S. Geological Survey topographic maps dated 1962. Data regarding the dam are given in the following table.

	Elevation (feet)
Top of dam.....	2,686.0
Design flood.....	2,683.0
Crest of spillway.....	2,674.0
Crest of morning-glory-type drop inlet.....	2,663.7
Lowest gated outlet (invert).....	2,597.0

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 44,650 acre-ft, June 26-28, 1975, elevation, 2,655.71 ft; minimum contents after initial filling, 10,940 acre-ft, Aug. 11, 1968, elevation, 2,625.1 ft; maximum elevation, 2,642.79 ft, June 16, 2005; minimum elevation, 2,634.26 ft, Dec. 11, 2006.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2,641.51 ft, Jun. 28-29; minimum elevation, 2,634.26 ft, Dec. 11.

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ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2,635.03	2,634.60	2,634.39	2,635.15	2,635.59	2,635.59	2,638.59	2,639.07	2,641.37	2,641.47	2,640.83	2,640.04
2	2,635.02	2,634.58	2,634.40	2,635.18	2,635.59	2,635.58	2,638.62	2,639.08	2,641.39	2,641.46	2,640.84	2,640.02
3	2,635.00	2,634.57	2,634.39	2,635.19	2,635.60	2,635.56	2,638.62	2,639.37	2,641.44	2,641.44	2,640.88	2,640.01
4	2,634.97	2,634.57	2,634.38	2,635.24	2,635.60	2,635.54	2,638.62	2,639.75	2,641.48	2,641.43	2,640.86	2,640.03
5	2,634.95	2,634.57	2,634.39	2,635.23	2,635.60	2,635.54	2,638.61	2,639.86	2,641.49	2,641.45	2,640.84	2,640.17
6	2,634.92	2,634.56	2,634.40	2,635.25	2,635.61	2,635.53	2,638.61	2,640.20	2,641.48	2,641.46	2,640.81	2,640.18
7	2,634.89	2,634.56	2,634.40	2,635.24	2,635.61	2,635.52	2,638.60	2,640.41	2,641.47	2,641.44	2,640.78	2,640.07
8	2,634.87	2,634.56	2,634.38	2,635.26	2,635.61	2,635.51	2,638.60	2,640.52	2,641.43	2,641.42	2,640.76	2,640.12
9	2,634.84	2,634.55	2,634.36	2,635.27	2,635.61	2,635.50	2,638.60	2,640.72	2,641.40	2,641.41	2,640.72	2,640.17
10	2,634.83	2,634.52	2,634.37	2,635.27	2,635.61	2,635.51	2,638.61	2,640.83	2,641.42	2,641.38	2,640.69	2,640.27
11	2,634.81	2,634.53	2,634.36	2,635.24	2,635.61	2,635.69	2,638.61	2,640.90	2,641.43	2,641.35	2,640.63	2,640.30
12	2,634.81	2,634.52	2,634.38	2,635.23	2,635.61	2,635.74	2,638.61	2,640.94	2,641.43	2,641.33	2,640.57	2,640.20
13	2,634.79	2,634.51	2,634.39	2,635.25	2,635.60	2,635.77	2,638.68	2,640.97	2,641.42	2,641.32	2,640.52	2,640.04
14	2,634.78	2,634.47	2,634.40	2,635.26	2,635.62	2,635.79	2,638.73	2,640.98	2,641.41	2,641.31	2,640.47	2,640.09
15	2,634.81	2,634.42	2,634.40	2,635.24	2,635.62	2,635.79	2,638.77	2,641.01	2,641.40	2,641.29	2,640.42	2,639.99
16	2,634.83	2,634.45	2,634.38	2,635.26	2,635.62	2,635.79	2,638.78	2,641.02	2,641.39	2,641.27	2,640.37	2,639.87
17	2,634.83	2,634.45	2,634.40	2,635.26	2,635.61	2,635.79	2,638.81	2,641.03	2,641.38	2,641.24	2,640.36	2,639.86
18	2,634.81	2,634.44	2,634.40	2,635.27	2,635.61	2,635.79	2,638.84	2,641.03	2,641.38	2,641.21	2,640.37	2,639.86
19	2,634.82	2,634.43	2,634.46	2,635.29	2,635.61	2,635.80	2,638.86	2,641.03	2,641.37	2,641.17	2,640.39	2,639.65
20	2,634.81	2,634.42	2,634.56	2,635.36	2,635.61	2,635.80	2,638.88	2,641.04	2,641.37	2,641.14	2,640.35	2,639.75
21	2,634.76	2,634.40	2,634.61	2,635.38	2,635.62	2,635.79	2,638.89	2,641.06	2,641.37	2,641.11	2,640.32	2,639.65
22	2,634.77	2,634.41	2,634.67	2,635.40	2,635.62	2,635.82	2,638.98	2,641.24	2,641.36	2,641.09	2,640.29	2,639.58
23	2,634.75	2,634.42	2,634.68	2,635.42	2,635.62	2,635.97	2,638.99	2,641.31	2,641.37	2,641.06	2,640.25	2,639.55
24	2,634.75	2,634.42	2,634.70	2,635.44	2,635.61	2,636.11	2,639.02	2,641.33	2,641.36	2,641.07	2,640.22	2,639.56
25	2,634.73	2,634.41	2,634.68	2,635.47	2,635.63	2,636.28	2,638.99	2,641.34	2,641.34	2,641.04	2,640.19	2,639.61
26	2,634.68	2,634.41	2,634.72	2,635.49	2,635.63	2,636.35	2,639.01	2,641.35	2,641.33	2,641.01	2,640.17	2,639.58
27	2,634.64	2,634.41	2,634.73	2,635.51	2,635.63	2,636.47	2,639.03	2,641.36	2,641.45	2,640.97	2,640.14	2,639.53
28	2,634.66	2,634.40	2,634.78	2,635.54	2,635.60	2,636.54	2,639.03	2,641.37	2,641.50	2,640.95	2,640.12	2,639.47
29	2,634.65	2,634.39	2,634.88	2,635.56	---	2,637.73	2,639.03	2,641.37	2,641.49	2,640.92	2,640.07	2,639.43
30	2,634.64	2,634.36	2,635.02	2,635.56	---	2,638.37	2,639.04	2,641.37	2,641.48	2,640.89	2,640.07	2,639.45
31	2,634.61	---	2,635.08	2,635.57	---	2,638.52	---	2,641.37	---	2,640.86	2,640.06	---
Mean	2,634.81	2,634.48	2,634.53	2,635.33	2,635.61	2,636.03	2,638.79	2,640.78	2,641.41	2,641.22	2,640.46	2,639.87
Max	2,635.03	2,634.60	2,635.08	2,635.57	2,635.63	2,638.52	2,639.04	2,641.37	2,641.50	2,641.47	2,640.88	2,640.30
Min	2,634.61	2,634.36	2,634.36	2,635.15	2,635.59	2,635.50	2,638.59	2,639.07	2,641.33	2,640.86	2,640.06	2,639.43

	Calendar Year 2006	Water Year 2007
Mean	2,636.30	2,637.79
Max	2,638.31	2,641.50
Min	2,634.36	2,634.36

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