Water-Data Report 2011

08083270 Lake Abilene near Buffalo Gap, TX

Middle Brazos-Clear Fork Basin
Upper Clear Fork Brazos Subbasin

LOCATION.--Lat 32°14′04″, long 99°53′19″ referenced to North American Datum of 1927, Taylor County, TX, Hydrologic Unit 12060102, 72 ft downstream from service outlet structure at Abilene Dam on Elm Creek, 0.5 mi upstream from Abilene State Park, 5.1 mi upstream from Buffalo Gap.

DRAINAGE AREA.--102 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Mar. 1999 to Sept. 2002 (contents), Oct. 2002 to current year.

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

COOPERATION.--Record of diversions may be obtained from city of Abilene.

REMARKS.--Records good. The lake is formed by a rolled earthfill dam 5,040 ft long. The dam was completed in May 1921, and impoundment began Aug. 1, 1921. Extensive repairs were made to the dam in 1941 and 1957. The dam and reservoir are owned and operated by the city of Abilene. The uncontrolled emergency spillway, 1,000 ft long across natural earth, is located at the left end of dam. The uncontrolled concrete ogee service spillway, 250 ft long, is located to the right of the emergency spillway at left end of dam. An earth ridge upstream of concrete ogee at approximate elevation 2,018 ft controls the flow to service spillway. A service outlet is provided for small releases downstream through a 24-inch diameter pipe. Water may be pumped from reservoir for city of Abilene municipal use. Data regarding the dam are given in the following table:

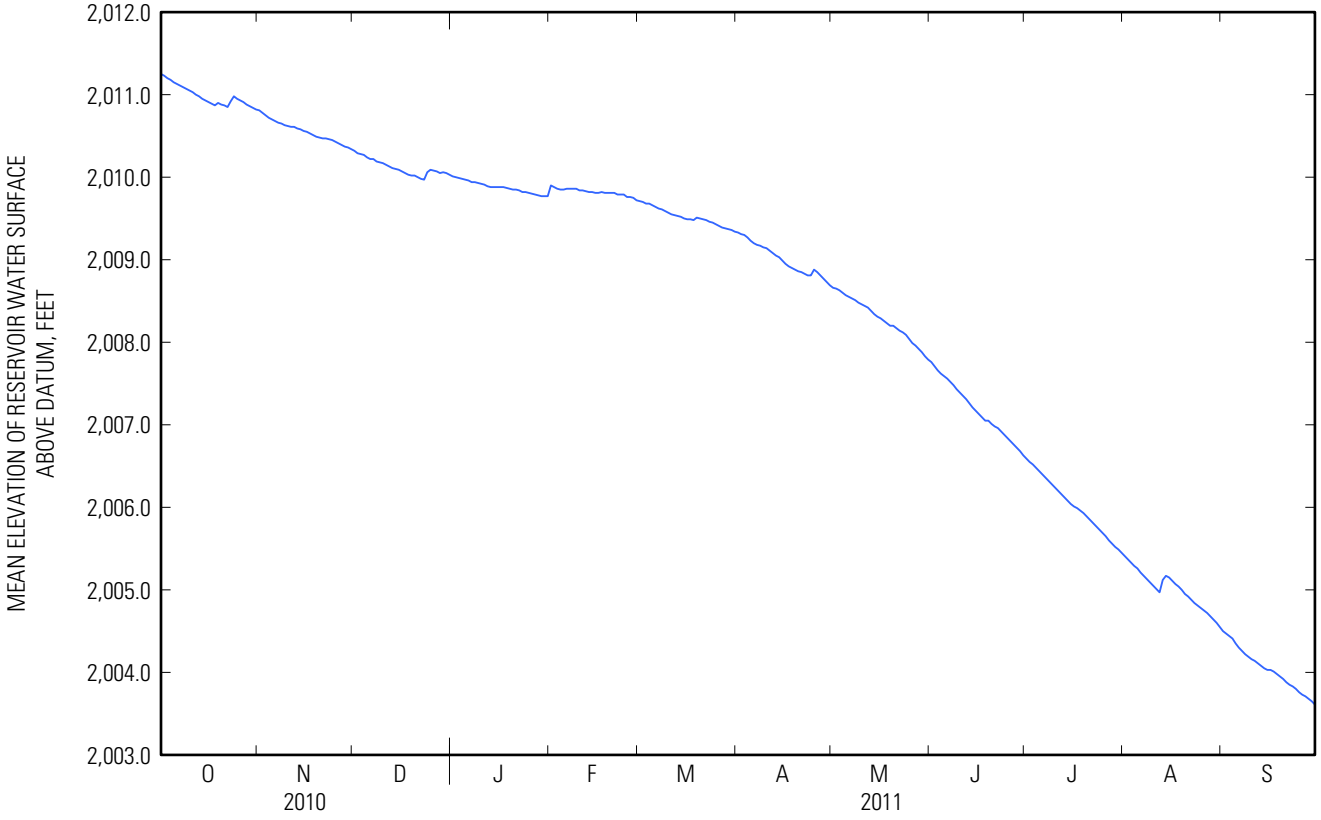
	Elevation (feet)
Top of dam	2,024.1
Crest of emergency spillway and earth ridge	2,018.3
Top of outlet structure	2,012.3
Crest of service spillway	2,009.7
Lowest gated outlet (invert)	1,968.8

EXTREMES FOR PERIOD OF RECORD.--Mar. 1999 to Sept. 2002: Maximum contents, 3,050 acre-ft, July 10, 2002; minimum contents, 6.8 acre-ft, May 2, 2001; Mar. 1999 to current year: Maximum elevation, 2,017.69 ft, Aug. 18, 2007; minimum elevation, 1,988.69 ft, May 2, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2,011.26 ft, Oct. 1; minimum elevation, 2,003.58 ft, Sept. 30.

08083270 Lake Abilene near Buffalo Gap, TX—Continued

ELEVATION OF RESERVOIR WATER SURFACE ABOVE DATUM, FEET
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2,011.25	2,010.81	2,010.32	2,010.01	2,009.90	2,009.71	2,009.33	2,008.66	2,007.76	2,006.59	2,005.41	2,004.50
2	2,011.23	2,010.78	2,010.29	2,010.00	2,009.88	2,009.70	2,009.31	2,008.65	2,007.71	2,006.55	2,005.37	2,004.47
3	2,011.20	2,010.75	2,010.28	2,009.99	2,009.86	2,009.68	2,009.30	2,008.63	2,007.66	2,006.52	2,005.33	2,004.44
4	2,011.18	2,010.72	2,010.27	2,009.98	2,009.85	2,009.68	2,009.27	2,008.60	2,007.62	2,006.48	2,005.29	2,004.41
5	2,011.15	2,010.70	2,010.24	2,009.97	2,009.85	2,009.66	2,009.23	2,008.57	2,007.59	2,006.44	2,005.26	2,004.35
6	2,011.13	2,010.68	2,010.22	2,009.96	2,009.86	2,009.64	2,009.20	2,008.55	2,007.56	2,006.40	2,005.21	2,004.30
7	2,011.11	2,010.66	2,010.22	2,009.94	2,009.86	2,009.62	2,009.18	2,008.53	2,007.52	2,006.36	2,005.17	2,004.26
8	2,011.09	2,010.65	2,010.19	2,009.94	2,009.86	2,009.61	2,009.17	2,008.51	2,007.48	2,006.32	2,005.13	2,004.22
9	2,011.07	2,010.63	2,010.18	2,009.93	2,009.86	2,009.59	2,009.15	2,008.48	2,007.43	2,006.28	2,005.09	2,004.19
10	2,011.05	2,010.62	2,010.17	2,009.92	2,009.84	2,009.57	2,009.14	2,008.46	2,007.39	2,006.24	2,005.05	2,004.16
11	2,011.03	2,010.61	2,010.15	2,009.91	2,009.84	2,009.55	2,009.11	2,008.44	2,007.35	2,006.20	2,005.01	2,004.14
12	2,011.00	2,010.61	2,010.13	2,009.89	2,009.83	2,009.54	2,009.08	2,008.42	2,007.31	2,006.16	2,004.97	2,004.11
13	2,010.98	2,010.59	2,010.11	2,009.88	2,009.82	2,009.53	2,009.05	2,008.38	2,007.26	2,006.12	2,005.12	2,004.08
14	2,010.95	2,010.58	2,010.10	2,009.88	2,009.82	2,009.52	2,009.03	2,008.34	2,007.21	2,006.08	2,005.17	2,004.05
15	2,010.93	2,010.56	2,010.09	2,009.88	2,009.81	2,009.50	2,008.99	2,008.31	2,007.17	2,006.04	2,005.15	2,004.03
16	2,010.91	2,010.55	2,010.07	2,009.88	2,009.81	2,009.49	2,008.95	2,008.29	2,007.13	2,006.01	2,005.11	2,004.03
17	2,010.89	2,010.53	2,010.05	2,009.88	2,009.82	2,009.49	2,008.92	2,008.26	2,007.09	2,005.99	2,005.07	2,004.01
18	2,010.87	2,010.51	2,010.03	2,009.87	2,009.81	2,009.48	2,008.90	2,008.23	2,007.05	2,005.96	2,005.04	2,003.98
19	2,010.90	2,010.49	2,010.02	2,009.86	2,009.81	2,009.51	2,008.88	2,008.20	2,007.05	2,005.93	2,005.00	2,003.95
20	2,010.88	2,010.48	2,010.02	2,009.85	2,009.81	2,009.50	2,008.86	2,008.20	2,007.01	2,005.89	2,004.95	2,003.92
21	2,010.87	2,010.47	2,010.00	2,009.85	2,009.81	2,009.49	2,008.85	2,008.17	2,006.98	2,005.85	2,004.92	2,003.88
22	2,010.85	2,010.47	2,009.98	2,009.84	2,009.79	2,009.48	2,008.83	2,008.14	2,006.96	2,005.81	2,004.88	2,003.85
23	2,010.92	2,010.46	2,009.97	2,009.82	2,009.79	2,009.46	2,008.81	2,008.12	2,006.92	2,005.77	2,004.84	2,003.83
24	2,010.98	2,010.45	2,010.06	2,009.82	2,009.79	2,009.45	2,008.81	2,008.09	2,006.88	2,005.73	2,004.81	2,003.80
25	2,010.95	2,010.43	2,010.09	2,009.81	2,009.76	2,009.43	2,008.88	2,008.04	2,006.84	2,005.69	2,004.78	2,003.76
26	2,010.93	2,010.41	2,010.08	2,009.80	2,009.76	2,009.41	2,008.85	2,007.99	2,006.80	2,005.65	2,004.75	2,003.73
27	2,010.91	2,010.39	2,010.07	2,009.79	2,009.75	2,009.39	2,008.81	2,007.96	2,006.76	2,005.60	2,004.72	2,003.71
28	2,010.88	2,010.37	2,010.05	2,009.78	2,009.72	2,009.38	2,008.77	2,007.92	2,006.72	2,005.56	2,004.68	2,003.68
29	2,010.86	2,010.36	2,010.06	2,009.77	---	2,009.37	2,008.73	2,007.88	2,006.68	2,005.52	2,004.64	2,003.65
30	2,010.84	2,010.34	2,010.05	2,009.77	---	2,009.36	2,008.69	2,007.83	2,006.63	2,005.49	2,004.60	2,003.61
31	2,010.82	---	2,010.03	2,009.77	---	2,009.34	---	2,007.79	---	2,005.45	2,004.55	---
Mean	2,010.99	2,010.56	2,010.12	2,009.88	2,009.82	2,009.52	2,009.00	2,008.28	2,007.18	2,006.02	2,005.00	2,004.04
Max	2,011.25	2,010.81	2,010.32	2,010.01	2,009.90	2,009.71	2,009.33	2,008.66	2,007.76	2,006.59	2,005.41	2,004.50
Min	2,010.82	2,010.34	2,009.97	2,009.77	2,009.72	2,009.34	2,008.69	2,007.79	2,006.63	2,005.45	2,004.55	2,003.61

08083270 Lake Abilene near Buffalo Gap, TX—Continued