



Water-Data Report 2008

07314800 Lake Arrowhead near Henrietta, TX

Red-Lake Texoma Basin
Little Wichita Subbasin

LOCATION.--Lat 33°45'51", long 98°22'17" referenced to North American Datum of 1927, Clay County, TX, Hydrologic Unit 11130209, at intake tower near center of dam on Little Wichita River, 2.3 mi upstream from Lake Creek, 11 mi southwest of Henrietta, and 12.3 mi southeast of Wichita Falls.

DRAINAGE AREA.--822 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1967 to Sept. 2002 (daily mean contents). Oct. 2002 to current year (daily mean elevation).

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: July 1971 to Oct. 2005.

BIOCHEMICAL DATA: July 1971 to Dec. 1972.

GAGE.--Water-stage recorder. Datum of gage is 0.40 ft below NGVD of 1929. Satellite telemeter at station.

COOPERATION.--Capacity table provided by the city of Wichita Falls.

REMARKS.--Records good. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically. The lake is formed by a rolled earthfill dam 15,900 ft long, including an uncontrolled reinforced concrete ogee spillway 1,581 ft wide located near the left end of dam. The dam was completed in Dec. 1966 and storage began in June 1967. The service outlet works, located in a cylindrical service tower at upstream side of dam, consist of two gated 5-foot-diameter inlets that can be used for controlled releases. The dam was built by the city of Wichita Falls to impound water for municipal, industrial, and recreational uses. The area-capacity curves are based on U.S. Geological Survey topographic maps. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam.....	944.40
Design flood.....	939.95
Crest of spillway	926.40
Lowest gated outlet (invert).....	874.10

EXTREMES FOR PERIOD OF RECORD.--(period of daily mean contents) Maximum contents, 287,500 acre-ft, May 4, 1990, gage height, 927.92 ft; minimum contents after initial filling, 74,600 acre-ft, Aug. 11, 1971, gage height, 909.63 ft; (period of daily mean elevation) maximum elevation, 926.74 ft, Jul. 3, 2007; minimum elevation, 914.24 ft, July 27, 2004.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 925.15 ft, Oct. 2; minimum elevation, 921.25 ft, Sept. 30.

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ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	925.11	924.53	924.30	924.09	923.84	923.62	923.89	923.75	923.36	922.72	921.90	921.59
2	925.12	924.53	924.27	924.08	923.81	923.64	923.91	923.67	923.35	922.70	921.88	921.53
3	925.07	924.52	924.26	924.10	923.81	923.60	923.93	923.62	923.34	922.66	921.85	921.47
4	925.07	924.53	924.25	924.10	923.82	923.67	923.92	923.61	923.30	922.63	921.80	921.47
5	925.04	924.50	924.22	924.10	923.80	923.63	923.94	923.64	923.29	922.62	921.75	921.46
6	925.02	924.46	924.22	924.09	923.80	923.60	923.93	923.75	923.23	922.60	921.72	921.44
7	925.01	924.46	924.21	924.08	923.79	923.60	923.92	---	923.22	922.59	921.70	921.41
8	924.98	924.45	924.19	924.06	923.78	923.60	923.92	923.77	923.18	922.53	921.67	921.37
9	924.95	924.43	924.17	924.07	923.76	923.59	923.90	923.77	923.10	922.48	921.67	921.41
10	924.94	924.43	924.19	924.04	923.74	923.62	924.09	923.75	923.08	922.49	921.63	921.51
11	924.92	924.45	924.22	924.03	923.72	923.62	924.05	923.71	923.09	922.48	921.61	921.59
12	924.91	924.43	924.25	923.99	923.72	923.62	924.03	923.73	923.04	922.44	921.59	921.60
13	924.90	924.43	924.25	924.00	923.73	---	924.00	923.71	922.99	922.39	921.58	921.58
14	924.87	924.38	924.24	923.99	923.72	---	924.00	923.66	922.95	922.41	921.56	921.57
15	924.85	924.37	924.23	924.00	923.67	923.57	924.01	923.65	922.94	922.39	921.57	921.55
16	924.86	924.38	924.24	923.99	---	923.58	924.01	923.64	922.90	922.39	921.56	921.54
17	924.88	924.35	924.24	923.95	923.77	923.60	923.96	923.64	922.83	922.37	921.54	921.52
18	924.79	924.34	924.22	923.94	923.77	923.76	923.93	923.62	922.83	922.35	921.59	921.50
19	924.76	924.35	924.21	923.92	923.77	923.94	923.92	923.61	922.92	922.31	921.75	921.48
20	924.76	924.37	924.20	923.95	923.74	924.05	923.92	923.54	922.93	922.28	921.79	921.46
21	924.71	924.28	924.21	923.93	923.72	924.04	923.90	923.54	922.90	922.26	921.81	921.45
22	924.66	924.27	924.18	923.88	923.72	924.01	923.86	923.57	922.89	922.25	921.81	921.44
23	924.68	924.27	924.18	923.90	923.72	923.99	923.86	923.54	922.87	922.21	921.77	921.41
24	924.63	924.25	924.16	923.88	923.69	924.03	923.90	923.52	922.84	922.18	921.73	921.39
25	924.62	924.26	924.17	923.90	923.67	924.04	923.86	923.51	922.82	922.15	921.70	921.37
26	924.61	924.31	924.14	923.89	923.64	924.02	923.83	923.51	922.79	922.11	921.69	921.35
27	924.59	924.30	924.14	923.89	923.65	924.03	---	923.47	922.76	922.08	921.68	921.33
28	924.58	924.29	924.14	923.90	923.66	923.95	923.79	923.44	922.71	922.03	921.66	921.31
29	924.58	924.26	924.13	---	923.61	923.97	923.79	923.44	922.72	921.98	921.64	921.29
30	924.58	924.27	924.12	923.87	---	923.98	923.77	923.43	922.73	921.95	921.62	921.26
31	924.56	---	924.10	923.83	---	924.00	---	923.39	---	921.92	921.61	---
Mean	924.83	924.38	924.20	---	---	---	---	---	923.00	922.35	921.69	921.46
Max	925.12	924.53	924.30	---	---	---	---	---	923.36	922.72	921.90	921.60
Min	924.56	924.25	924.10	---	---	---	---	---	922.71	921.92	921.54	921.26

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