Water-Data Report 2010

07227900 Lake Meredith near Sanford, TX

Middle Canadian Basin
Lake Meredith Subbasin

LOCATION.--Lat 35°42′38″, long 101°33′03″ referenced to North American Datum of 1927, Hutchinson County, TX, Hydrologic Unit 11090105, in outlet tower near right end of dam on Canadian River 1.2 mi northwest of Sanford, and 508.5 mi upstream from mouth.

DRAINAGE AREA.--20,220 mi^2 of which 4,172 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Oct. 1964 to Sept. 1987, Oct. 1999 to Sept. 2002 (daily mean contents), Oct. 2002 to current year (daily mean elevation).

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: Nov. 1965 to Dec. 1978, Feb. 1980 to Jan. 1984.
BIOCHEMICAL DATA: Nov. 1965 to Dec. 1973, Jan. 1975 to Aug. 1976.
RADIOCHEMICAL DATA: Feb. 1981.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Prior to Aug. 1965, nonrecording gage read daily at same site and datum. Satellite telemeter at station.

COOPERATION.--Capacity table provided by Canadian Municipal Water Authority.

REMARKS.--Records fair. 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 6,410 ft long. The dam was completed and storage began in Oct. 1964. The service spillway is an uncontrolled concrete drop inlet located near the left end of the dam. The spillway discharges into a 22-ft diameter conduit that is designed to discharge 19,300 ft^3/s at an elevation of 3,004.9 ft. The dam was built by the U.S. Bureau of Reclamation and is owned by the Canadian River Municipal Authority and used for flood control, and municipal and industrial supply for the cities of Amarillo, Borger, Brownfield, Lamesa, Levelland, Lubbock, O'Donnell, Pampa, Plainview, Slaton, and Tahoka. The area-capacity curves are based on sediment resurvey by the Texas Water Development Board. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam.....	3,011.0
Design flood.....	3,004.9
Crest drop inlet.....	2,965.0
Lowest gated outlet (invert).....	2,850.0

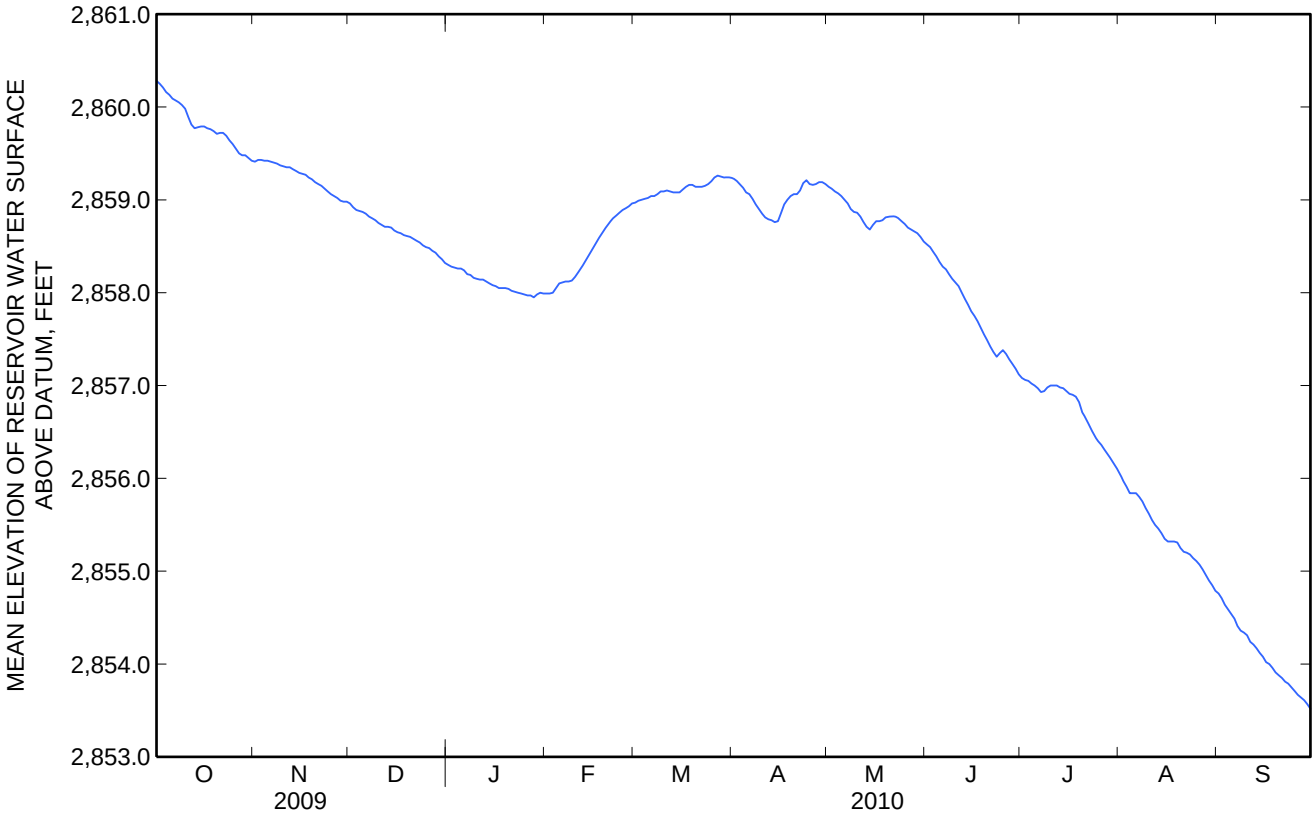
EXTREMES FOR PERIOD OF RECORD.--(period of daily mean contents) Maximum contents, 546,100 acre-ft, Apr. 28, 1973, elevation, 2,914.91 ft; minimum contents after initial filling, 165,500 acre-ft, May 27, 1981, elevation, 2,876.17 ft; (period of daily mean elevation) maximum elevation, 2,883.57 ft, Oct. 4, 2002; minimum elevation, 2,853.49 ft, Sept. 30, 2010.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2860.30 ft, Oct. 1; minimum elevation, 2,853.49 ft, Sept. 30.

07227900 Lake Meredith near Sanford, TX—Continued

ELEVATION OF RESERVOIR WATER SURFACE ABOVE DATUM, FEET
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2,860.28	2,859.41	2,858.96	2,858.30	2,857.99	2,858.97	2,859.23	2,859.14	2,858.52	2,857.08	2,856.04	2,854.76
2	2,860.25	2,859.43	2,858.92	2,858.28	2,857.99	2,858.99	2,859.20	2,859.12	2,858.49	2,857.06	2,855.97	2,854.71
3	2,860.21	2,859.43	2,858.89	2,858.27	2,858.00	2,859.00	2,859.17	2,859.09	2,858.44	2,857.05	2,855.91	2,854.64
4	2,860.16	2,859.42	2,858.88	2,858.26	2,858.05	2,859.01	2,859.13	2,859.07	2,858.39	2,857.02	2,855.84	2,854.59
5	2,860.13	2,859.42	2,858.87	2,858.26	2,858.10	2,859.02	2,859.08	2,859.04	2,858.33	2,857.00	2,855.84	2,854.54
6	2,860.09	2,859.41	2,858.85	2,858.24	2,858.11	2,859.04	2,859.06	2,859.00	2,858.28	2,856.97	2,855.84	2,854.49
7	2,860.07	2,859.40	2,858.82	2,858.20	2,858.12	2,859.04	2,859.01	2,858.96	2,858.25	2,856.93	2,855.80	2,854.41
8	2,860.05	2,859.39	2,858.80	2,858.19	2,858.12	2,859.06	2,858.95	2,858.90	2,858.20	2,856.94	2,855.75	2,854.36
9	2,860.02	2,859.37	2,858.78	2,858.16	2,858.13	2,859.09	2,858.90	2,858.87	2,858.15	2,856.98	2,855.68	2,854.34
10	2,859.98	2,859.36	2,858.75	2,858.15	2,858.17	2,859.09	2,858.85	2,858.86	2,858.11	2,857.00	2,855.62	2,854.31
11	2,859.89	2,859.35	2,858.73	2,858.14	2,858.22	2,859.10	2,858.81	2,858.82	2,858.07	2,857.00	2,855.55	2,854.24
12	2,859.81	2,859.35	2,858.71	2,858.14	2,858.27	2,859.09	2,858.79	2,858.76	2,858.00	2,857.00	2,855.50	2,854.21
13	2,859.77	2,859.33	2,858.71	2,858.12	2,858.33	2,859.08	2,858.78	2,858.71	2,857.93	2,856.98	2,855.46	2,854.17
14	2,859.78	2,859.31	2,858.70	2,858.10	2,858.38	2,859.08	2,858.76	2,858.68	2,857.87	2,856.97	2,855.41	2,854.12
15	2,859.79	2,859.29	2,858.67	2,858.08	2,858.44	2,859.08	2,858.77	2,858.73	2,857.80	2,856.94	2,855.35	2,854.08
16	2,859.79	2,859.28	2,858.65	2,858.07	2,858.50	2,859.11	2,858.86	2,858.77	2,857.75	2,856.91	2,855.32	2,854.02
17	2,859.77	2,859.27	2,858.64	2,858.05	2,858.55	2,859.14	2,858.95	2,858.77	2,857.69	2,856.90	2,855.32	2,854.00
18	2,859.76	2,859.24	2,858.62	2,858.05	2,858.61	2,859.16	2,859.00	2,858.78	2,857.62	2,856.88	2,855.32	2,853.96
19	2,859.74	2,859.22	2,858.61	2,858.05	2,858.67	2,859.16	2,859.04	2,858.81	2,857.55	2,856.82	2,855.31	2,853.91
20	2,859.71	2,859.19	2,858.60	2,858.04	2,858.72	2,859.14	2,859.06	2,858.82	2,857.49	2,856.71	2,855.25	2,853.88
21	2,859.72	2,859.17	2,858.58	2,858.02	2,858.76	2,859.14	2,859.06	2,858.82	2,857.42	2,856.65	2,855.21	2,853.85
22	2,859.72	2,859.15	2,858.56	2,858.01	2,858.80	2,859.14	2,859.10	2,858.82	2,857.36	2,856.59	2,855.20	2,853.81
23	2,859.69	2,859.12	2,858.54	2,858.00	2,858.83	2,859.15	2,859.18	2,858.80	2,857.31	2,856.52	2,855.18	2,853.79
24	2,859.64	2,859.09	2,858.51	2,857.99	2,858.86	2,859.17	2,859.21	2,858.77	2,857.35	2,856.45	2,855.14	2,853.75
25	2,859.60	2,859.06	2,858.49	2,857.98	2,858.89	2,859.20	2,859.17	2,858.74	2,857.38	2,856.40	2,855.11	2,853.71
26	2,859.55	2,859.04	2,858.48	2,857.97	2,858.91	2,859.24	2,859.16	2,858.70	2,857.34	2,856.36	2,855.07	2,853.67
27	2,859.50	2,859.02	2,858.45	2,857.97	2,858.93	2,859.26	2,859.17	2,858.68	2,857.28	2,856.31	2,855.02	2,853.64
28	2,859.48	2,858.99	2,858.43	2,857.95	2,858.96	2,859.25	2,859.19	2,858.66	2,857.23	2,856.26	2,854.96	2,853.61
29	2,859.48	2,858.98	2,858.39	2,857.98	---	2,859.24	2,859.19	2,858.64	2,857.18	2,856.21	2,854.90	2,853.57
30	2,859.45	2,858.98	2,858.36	2,858.00	---	2,859.24	2,859.17	2,858.60	2,857.12	2,856.16	2,854.85	2,853.52
31	2,859.42	---	2,858.32	2,857.99	---	2,859.24	---	2,858.55	---	2,856.10	2,854.79	---
Mean	2,859.82	2,859.25	2,858.65	2,858.10	2,858.44	2,859.12	2,859.03	2,858.82	2,857.80	2,856.75	2,855.40	2,854.09
Max	2,860.28	2,859.43	2,858.96	2,858.30	2,858.96	2,859.26	2,859.23	2,859.14	2,858.52	2,857.08	2,856.04	2,854.76
Min	2,859.42	2,858.98	2,858.32	2,857.95	2,857.99	2,858.97	2,858.76	2,858.55	2,857.12	2,856.10	2,854.79	2,853.52

	Calendar Year 2009	Water Year 2010
Mean	2,862.51	2,857.94
Max	2,866.21	2,860.28
Min	2,858.32	2,853.52

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