



Water-Data Report 2007

06204000 MYSTIC LAKE NEAR ROSCOE, MT

Upper Yellowstone Basin
Stillwater Subbasin

LOCATION.--Lat 45°13'30", long 109°45'36" referenced to North American Datum of 1927, in sec.9, T.7 S., R.16 E., Stillwater County, MT, Hydrologic Unit 10070005, (unsurveyed) at dam on West Rosebud Creek, 15 mi southwest of Roscoe, 25 mi southwest of Absarokee and at river mile 28.8.

DRAINAGE AREA.--46.9 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--January 1936 to current year. Records prior to September 1939, published only in WSP 1309. Record of daily elevations since October 1965 are in files of the USGS Water Science Center located in Helena, Montana. Water-stage recorder. Prior to October 1965, only monthend figures furnished.

REVISED RECORDS.-- Water Supply Paper 1916: Drainage area.

GAGE.--Elevation of gage is at sea level (levels by the Montana Power Company).

COOPERATION.--Records furnished by PPL EnergyPlus, LLC.

REMARKS.--Reservoir is formed by thin-section reinforced concrete arch dam completed in 1925. All elevations are referenced to the National Geodetic Vertical Datum of 1929. Usable capacity is 21,000 acre-ft between elevation 7,612.00 ft, minimum operating level, and 7,673.50 ft, top of 3.5 ft stop logs. Reservoir has no dead storage. Figures given herein represent usable contents. Water is used for power development and recreation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 21,130 acre-ft, July 10, 1983, elevation, 7,673.8 ft; no storage most days Mar. 23 to May 5, 1981, Apr. 10 to May 19, 1982, May 4,5, 1983, May 14, 1984, Mar. 23,26,27, 1986, Apr. 8-11, 1988, Apr. 18-20, 1999, Apr. 12 to May 1, 2000, and several days in April 2003.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 21,030 acre-ft, July 7, elevation, 7,673.58 ft; minimum observed, 396 acre-ft, Apr. 25, elevation 7,613.41.

**MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS,
SEPTEMBER 2006 TO SEPTEMBER 2007**

Date	Elevation (feet)	Contents (acre-feet)	Change in Contents (acre-feet)
September 30	7,658.96	15,040	--
October 31	7,661.29	15,940	+900
November 30	7,654.99	13,570	-2,370
December 31	7,646.22	10,510	-3,060
Calendar Year 2006	--	--	+1,380
January 31	7,635.60	7,070	-3,440
February 28	7,624.78	3,770	-3,300
March 31	7,616.92	1,420	-2,350
April 30	7,614.19	615	-805
May 31	7,641.21	8,860	+8,240
June 30	7,673.50	21,000	+12,140
July 31	7,673.27	20,900	-100
August 31	7,670.42	19,670	-1,230
September 30	7,666.52	18,030	-1,640
Water Year 2007	--	--	+2,990