



Water-Data Report 2006

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, 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 Water Supply Paper (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.--WSP 1916: Drainage area.

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

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, 21,000 acre-ft, Aug. 1-3, elevation, 7,673.49 ft; minimum observed, 85 acre-ft, Apr. 29 and 30, elevation 7,612.30.

**MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS,
SEPTEMBER 2005 TO SEPTEMBER 2006**

Date	Elevation (feet)	Contents (acre-feet)	Change in Contents (acre-feet)
September 30	7,662.95	16,590	--
October 31	7,655.79	13,850	-2,740
November 30	7,648.59	11,310	-2,540
December 31	7,642.03	9,130	-2,180
Calendar Year 2005	--	--	+1,520
January 31	7,633.45	6,400	-2,730
February 28	7,624.89	3,800	-2,600
March 31	7,614.09	586	-3,214
April 30	7,612.30	85	-501
May 31	7,638.82	8,090	+8,005
June 30	7,672.01	20,340	+12,250
July 31	7,673.02	20,790	+450
August 31	7,664.10	17,050	-3,740
September 30	7,658.96	15,040	-2,010
Water Year 2006	--	--	-1,550