

BEAVER RIVER BASIN

LAKES AND RESERVOIRS IN BEAVER RIVER BASIN

03100500 PYMATUNING RESERVOIR.--Lat 41°29'54", long 80°27'47", Crawford County, Hydrologic Unit 05030102, in gatehouse at Pymatuning Dam on Shenango River, 1.8 mi northwest of Jamestown, Pa., and at mile 85.1. DRAINAGE AREA, 158 mi². PERIOD OF RECORD, October 1932 to current year. Contents prior to October 1938 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is sea level. Prior to Nov. 20, 1934, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed in two parts. The main dam is earthfill with stone facing, provided with regulating gates (outlet gate sill elevation at 975.3 ft), and a spillway with crest elevation at 1,008.0 ft. An auxiliary dam 15 mi upstream from the main dam with spillway elevation at 1,010 ft has a fixed crest weir section in the earthfill causeway. Storage began Jan. 23, 1934, when all regulating gates were closed. Capacity, 188,040 acre-ft between elevations, 975.3 ft and 1,008.0 ft was reached in March 1936. Dead storage 10,150 acre-ft (93 acre-ft behind main dam below elevation 975.3 ft and 10,060 acre-ft behind upstream dam below elevation 1,010 ft). Upstream pool was filled (all dead storage accumulated) on March 5, 1934. Figures given herein represent usable contents. Reservoir is used for flood control, and for recreation. Dam built by Pennsylvania Department of Forests and Waters and now maintained by Pennsylvania Department of Environmental Protection.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 210,680 acre-ft, June 26, 1972 (elevation, 1,009.53 ft); minimum (after first filling), 110,570 acre-ft, Dec. 4, 1953 (elevation, 1,002.17 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 195,930 acre-ft, Apr. 27, elevation, 1,008.54 ft; minimum, 151,480 acre-ft, Dec. 18, elevation, 1,005.38 ft.

03106280 LAKE ARTHUR.--Lat 40°57'45", long 80°07'17", Butler County, Hydrologic Unit 05030105, in gatehouse at left end of spillway of Lake Arthur Dam on Muddy Creek, at Moraine State Park, 3 mi northeast of Portersville, Pa. DRAINAGE AREA, 50.8 mi². PERIOD OF RECORD, May 1969 to current year. GAGE, water-stage recorder. Datum of gage is sea level (Pennsylvania Department of Environmental Protection bench mark). Prior to Aug. 23, 1969, nonrecording gage at same site and datum.

REMARKS.--Lake is formed by an earthfill dam with concrete spillway. Storage began May 15, 1969. Usable capacity, 37,000 acre-ft between elevations 1,160 ft, sill of 6 ft outlet gate and 1,189.8 ft (spillway crest). No dead storage. Figures given herein represent usable contents. Lake is used for recreation. Dam built by Pennsylvania Department of Forests and Waters and now maintained by Pennsylvania Department of Environmental Protection.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 44,240 acre-ft, June 16, 1989 (elevation, 1,192.01 ft); minimum (after first filling), 21,320 acre-ft, Nov. 30, 1975 (elevation, 1,183.88 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 39,170 acre-ft, Apr. 27, elevation, 1,190.49 ft; minimum, 26,000 acre-ft, Jan. 6, elevation, 1,185.80 ft..

MONTHEND ELEVATION, IN FEET ABOVE SEA LEVEL, AND CONTENTS AT 2400 HRS. WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in ft ³ /s)
<u>03100500 Pymatuning Reservoir</u>				<u>03106280 Lake Arthur</u>		
Sept. 30	1,005.95	159,190	--	1,189.28	35,440	--
Oct. 31	1,005.71	155,930	-53	1,189.36	35,680	+3.9
Nov. 30	1,005.70	155,790	-2.4	1,188.97	34,520	-19
Dec. 31	1,005.77	156,740	+15	1,185.94	26,350	-133
CAL YR 1998	--	--	-3.0	--	--	-16
Jan. 31	1,007.00	173,740	+276	1,187.51	30,480	+66
Feb. 28	1,006.55	167,440	-113	1,186.28	27,230	-59
Mar. 31	1,007.08	174,870	+121	1,188.22	32,420	+84
Apr. 30	1,008.37	193,430	+312	1,190.41	38,920	+109
May 31	1,007.96	187,460	-97	1,190.25	38,400	-8.5
June 30	1,007.58	181,980	-92	1,189.94	37,420	-16
July 31	1,007.24	177,140	-79	1,190.06	37,790	+6.0
Aug. 31	1,006.78	170,650	-106	1,189.91	37,330	-7.5
Sept. 30	1,006.26	163,440	-121	1,189.72	36,760	-9.6
WTR YR 1999	--	--	+5.9	--	--	+1.8