



Water-Data Report 2011

03012520 ALLEGHENY RESERVOIR NEAR WARREN, PA

Allegheny Basin
Upper Allegheny Subbasin

LOCATION.--Lat 41°50'17", long 79°00'10" referenced to North American Datum of 1927, Warren County, PA, Hydrologic Unit 05010001, in Allegheny National Forest, at control house at Kinzua Dam on Allegheny River, 3 mi upstream from Hemlock Run, and 7 mi east of Warren.

DRAINAGE AREA.--2,180 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1965 to current year. Prior to October 1966 published as Allegheny River Reservoir.

GAGE.--Water-stage recorder. Datum of gage is referenced to North American Vertical Datum 1988 (NAVD88), US Army Corps of Engineers benchmark. Prior to October 2009, datum of gage was referenced to National Geodetic Vertical Datum of 1929 (NGVD29). Conversion from NGVD29 to NAVD88 at this location is: NGVD29 elevation - 0.47 ft = NAVD88 elevation. Satellite telemetry at station.

COOPERATION.--Station established and maintained by the U.S. Geological Survey in cooperation with the U.S. Army Corps of Engineers, Pittsburgh District.

REMARKS.--Reservoir is formed by a concrete gravity dam with a gated spillway and with an earthfill section, rockfaced, at right side. Storage began during construction and reservoir acted as retention basin from October 1965 to December 1966. Dam became operational in January 1967. Reservoir first reached minimum pool elevation during period of construction. Capacity, 1,180,000 acre-ft between elevations 1,205.0 ft (invert of low level sluices) and 1,364.5 ft NAVD88, (full pool). Dead storage is 128 acre-ft. Minimum pool elevation, 1,239.5 ft NAVD88, (capacity, 24,240 acre-ft). Winter low-water pool elevation, 1,291.5 ft NAVD88,(capacity, 239,780 acre-ft). Summer low-water pool elevation, 1,327.5 ft NAVD88, (capacity, 572,610 acre-ft). Storage to summer pool normally occurs during period April to May. Depletion of low-water storage for augmenting flow in Allegheny River normally occurs during period July to December. Figures given herein represent total contents. Reservoir is used for flood control, low-flow augmentation and water-quality control of Allegheny River and downstream rivers, power generation, and recreation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,121,120 acre-ft, Jun 27,1972, elevation, 1,361.73 ft NAVD88; minimum (after first filling), 113,310 acre-ft, Jan 26, 1968, elevation, 1,268.21 ft NAVD88.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 777,800 acre-ft, May 7, elevation, 1,342.66 ft; minimum, 317,500 acre-ft, Feb 4, elevation, 1,302.13 ft.

MONTHEND ELEVATION ABOVE SEA LEVEL, AND CONTENTS AT 2400 HOURS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Date	Elevation, in ft	Contents, in acre-ft	Change in contents, in ft ³ /s
Sep 30	1,315.92	443,800	
Oct 31	1,317.13	456,200	+202
Nov 30	1,320.48	491,600	+595
Dec 31	1,306.01	350,300	-2298
CAL YR 2010			-12
Jan 31	1,302.80	323,000	-444
Feb 28	1,314.65	431,000	+1945
Mar 31	1,317.51	460,100	+473
Apr 30	1,335.11	669,200	+3514
May 31	1,330.83	613,000	-914
Jun 30	1,328.16	579,800	-558
Jul 31	1,321.53	503,000	-1249
Aug 31	1,318.11	466,400	-595
Sep 30	1,313.23	417,000	-830
WTR YR 2011			-37

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