

Water-Data Report 2012

03049500 ALLEGHENY RIVER AT NATRONA, PA

Allegheny Basin
Lower Allegheny Subbasin

LOCATION.--Lat 40°36'55", long 79°43'07" referenced to North American Datum of 1927, Allegheny County, PA, Hydrologic Unit 05010009, on right bank 520 ft upstream from dam at lock 4 at Natrona, 5.8 mi downstream from Kiskiminetas River, at river mile 24.3.

DRAINAGE AREA.--11,410 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1435: 1939.

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 736.36 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Apr 14, 1940, nonrecording gage and Apr 15, 1940 to Oct 22, 1990, water-stage recorder at same site at datum 0.75 ft higher. Satellite telemetry at station.

COOPERATION.-- Station established and maintained by the U.S. Geological Survey. Funding for the operation of this station is provided by the U.S. Army Corps of Engineers, Pittsburgh District, the Pennsylvania Department of Environmental Protection, and the U.S. Geological Survey through the National Streamflow Information Program and Cooperative Water Program.

REMARKS.--Records good, except those below 2,000 ft³/s, which are poor. Sharp rises and drops in discharge during periods of low flow are caused by hydroelectric power production upstream. Flow regulated since 1924 by Piney Reservoir, since May 1940 by Crooked Creek Lake, since December 1940 by Tionesta Lake (station 03019500), since June 1941 by Mahoning Creek Lake (station 03035500), since June 1942 by Loyalhanna Lake (station 03046500), since November 1949 by Chautauqua Lake, since November 1951 by Conemaugh River Lake, since June 1952 by East Branch Clarion River Lake (station 03027000), since October 1965 by Allegheny Reservoir (station 03012520), since July 1970 by Union City Reservoir (station 03021518), since January 1974 by Woodcock Creek Lake (station 03022550). Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar 18, 1936 reached a stage of 32.06 ft, discharge, 365,000 ft³/s, determined by U.S. Army Corps of Engineers.

03049500 ALLEGHENY RIVER AT NATRONA, PA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	11,800	27,400	47,800	41,100	51,500	44,600	15,900	19,300	10,200	4,270	10,200	3,530
2	12,500	26,200	41,700	38,900	48,300	53,900	15,200	18,500	10,700	3,920	8,030	3,540
3	18,700	24,400	36,300	38,200	43,900	50,200	14,400	19,900	14,200	3,830	6,340	3,600
4	24,300	23,000	31,900	35,300	40,200	49,200	13,200	19,800	15,800	5,010	5,380	3,590
5	25,300	21,600	26,700	32,000	31,600	42,900	11,300	20,800	13,500	5,470	4,410	6,640
6	23,900	18,400	27,000	28,200	27,900	37,400	10,300	22,400	12,700	4,790	4,670	5,220
7	21,300	17,400	32,700	26,200	26,900	34,100	9,020	20,100	10,700	4,710	5,100	4,510
8	17,900	15,600	32,700	25,900	25,400	30,700	8,740	31,500	9,080	4,250	4,590	5,500
9	15,200	13,800	32,900	23,700	21,300	37,000	8,390	41,900	7,520	3,640	4,510	5,590
10	12,200	12,100	30,400	22,400	19,200	41,400	7,980	43,000	6,920	3,480	5,180	5,390
11	10,100	12,100	26,700	20,500	16,800	38,500	7,610	40,400	6,570	3,570	6,000	5,200
12	9,660	11,300	22,900	21,100	15,100	34,400	7,350	36,600	6,800	3,680	6,290	4,720
13	8,980	10,300	20,700	29,100	13,600	29,900	7,040	31,100	7,910	3,250	6,030	4,390
14	9,510	10,600	19,400	37,500	14,700	28,900	7,550	27,400	8,960	3,230	5,700	4,450
15	12,300	18,400	18,500	35,800	13,200	27,400	7,690	24,100	8,320	3,210	5,200	3,790
16	16,700	33,200	22,800	31,500	13,400	25,800	7,370	20,500	7,440	3,620	4,560	3,510
17	22,300	36,400	28,200	30,600	15,700	24,700	7,100	17,200	6,810	4,210	4,770	3,360
18	26,600	33,800	25,900	43,700	18,900	21,600	6,440	13,600	7,210	5,480	4,500	5,040
19	26,000	30,400	24,400	51,900	19,600	20,800	7,680	12,000	7,060	5,350	4,080	7,170
20	25,300	27,000	24,000	46,700	18,600	20,100	6,730	10,100	6,960	5,420	3,870	7,470
21	23,100	22,500	22,700	42,500	16,800	19,400	6,560	8,930	6,060	4,990	3,460	6,460
22	22,700	22,800	40,800	36,800	16,300	18,000	6,640	8,440	6,380	5,330	3,640	5,980
23	22,100	36,600	57,200	34,200	15,700	15,200	7,470	8,180	4,920	5,540	3,740	5,520
24	21,000	43,700	63,400	43,600	17,300	16,500	9,450	6,500	4,090	5,170	3,830	4,890
25	19,800	46,600	56,000	44,700	21,100	22,500	13,700	6,630	3,790	4,830	3,540	4,780
26	19,100	44,900	50,100	41,700	21,700	23,700	18,700	6,450	3,750	4,720	3,610	5,330
27	17,500	41,200	46,700	58,900	21,500	25,400	20,200	5,970	3,690	9,240	3,620	6,100
28	20,500	40,300	50,700	79,900	19,500	22,400	19,900	6,960	4,030	14,500	5,160	8,140
29	25,900	50,900	49,200	68,300	21,700	21,500	19,700	8,520	4,140	18,000	4,790	9,270
30	28,500	51,500	44,700	64,000	---	18,100	20,300	12,300	4,400	16,900	3,980	8,590
31	28,900	---	41,900	58,700	---	17,600	---	11,100	---	12,900	3,430	---
Total	599,650	824,400	1,097,000	1,233,600	667,400	913,800	329,610	580,180	230,610	186,510	152,210	161,270
Mean	19,340	27,480	35,390	39,790	23,010	29,480	10,990	18,720	7,687	6,016	4,910	5,376
Max	28,900	51,500	63,400	79,900	51,500	53,900	20,300	43,000	15,800	18,000	10,200	9,270
Min	8,980	10,300	18,500	20,500	13,200	15,200	6,440	5,970	3,690	3,210	3,430	3,360
Cfsm	1.70	2.41	3.10	3.49	2.02	2.58	0.96	1.64	0.67	0.53	0.43	0.47
In.	1.96	2.69	3.58	4.02	2.18	2.98	1.07	1.89	0.75	0.61	0.50	0.53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	10,120	16,750	24,890	25,360	26,850	38,410	34,580	22,810	14,290	9,103	7,079	7,656
Max	37,840	45,220	48,690	68,600	53,390	87,030	83,780	48,400	45,820	34,630	23,020	47,470
(WY)	(2007)	(1986)	(1978)	(1952)	(1976)	(1945)	(1940)	(1943)	(1989)	(1972)	(1956)	(2004)
Min	1,227	2,686	2,316	4,520	7,167	10,410	9,000	6,129	3,759	1,944	1,786	1,444
(WY)	(1964)	(1954)	(1961)	(1961)	(1963)	(1969)	(1946)	(1941)	(1991)	(1966)	(1962)	(1939)

03049500 ALLEGHENY RIVER AT NATRONA, PA—Continued

SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1939 - 2012	
Annual total	10,459,330		6,976,240			
Annual mean	28,660		19,060		19,790	
Highest annual mean					30,090	2004
Lowest annual mean					12,680	1999
Highest daily mean	127,000	Mar 11	79,900	Jan 28	206,000	Dec 31, 1942
Lowest daily mean	3,280	Jul 16	3,210	Jul 15	949	Oct 26, 1963
Annual seven-day minimum	3,830	Jul 15	3,430	Jul 10	1,030	Oct 25, 1963
Maximum peak flow			82,500	Jan 28	^a 238,000	Dec 30, 1942
Maximum peak stage			16.84	Jan 28	^b 27.46	Dec 30, 1942
Instantaneous low flow			2,160	Sep 17		
Annual runoff (cfsm)	2.51		1.67		1.73	
Annual runoff (inches)	34.10		22.74		23.56	
10 percent exceeds	67,600		41,800		45,000	
50 percent exceeds	19,800		16,100		13,400	
90 percent exceeds	5,230		4,260		3,390	

^a From rating curve extended above 172,000 ft³/s based on straight-line extension.

^b Datum then in use.

