

Water-Data Report 2009

03072655 MONONGAHELA RIVER NEAR MASONTOWN, PA

Monongahela Basin
Lower Monongahela Subbasin

LOCATION.--Lat 39°49'30", long 79°55'23" referenced to North American Datum of 1927, Greene County, PA, Hydrologic Unit 05020005, on left bank, 84 ft upstream from Lock and Dam at Grays Landing, 0.9 mi upstream from Masontown, 1.2 mi upstream from Whitley Creek, 5.3 mi downstream from Dunkard Creek, 7.6 mi downstream from Cheat River, at river mile 81.9.

DRAINAGE AREA.--4,440 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1938 to current year. Published as "at Greensboro" (Station 03072500) October 1938 to September 1995. Prior to January 1939 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1113: 1939 (M), 1941 (M). WSP 1435: 1939. WSP 1907: 1936 (M), 1955 (M).

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 769.00 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Nov 9, 1990, at datum 1.45 ft lower. 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 and the Pennsylvania Department of Environmental Protection.

REMARKS.--Records good above 5,000 ft³/s, fair below, except those below 1,000 ft³/s, and those for estimated daily discharges, which are poor. Flow regulated since 1926 by Lake Lynn 11 mi upstream, since May 1938, by Tygart Lake 69 mi upstream, and since April 1989 by Stonewall Jackson Lake 120.6 mi upstream, combined capacity, 432,000 acre-ft. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jul 1888 reached a stage of about 36 ft, from high-water profile by U.S. Army Corps of Engineers. Flood of Mar 18, 1936, reached a stage of 28.4 ft, discharge, 130,000 ft³/s.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	821	917	1,790	8,090	11,800	4,640	12,000	11,000	6,950	1,790	9,370	1,020
2	816	449	3,630	6,920	12,700	5,960	11,000	17,300	7,070	1,280	9,540	1,090
3	1,180	754	2,930	7,190	14,700	6,780	10,800	20,700	6,970	1,290	12,700	1,040
4	684	649	1,800	3,140	13,000	5,180	20,200	58,100	6,740	2,270	13,700	995
5	948	958	2,870	7,160	14,300	5,000	18,000	65,800	13,200	1,860	10,500	900
6	859	1,390	3,780	8,970	9,820	4,370	14,400	36,500	23,400	1,190	5,180	955
7	932	519	3,340	22,600	6,910	2,460	14,100	38,300	21,100	1,080	2,590	1,060
8	1,010	583	2,850	43,800	9,990	2,710	14,700	41,500	14,700	1,040	2,550	1,360
9	939	588	3,690	24,200	22,500	2,620	16,000	32,700	10,200	947	1,860	1,840
10	800	476	7,140	24,300	21,200	4,940	12,900	26,000	7,180	1,470	2,130	1,520
11	990	948	18,300	33,900	34,300	6,700	15,100	23,100	6,270	1,480	1,790	1,400
12	833	609	48,600	34,300	27,200	5,870	21,500	21,200	5,800	e1,300	1,330	1,100
13	844	637	29,500	27,900	19,500	4,490	16,500	19,400	4,800	1,020	2,350	1,040
14	704	732	23,400	24,900	15,500	1,280	16,100	14,200	4,350	1,090	2,220	1,430
15	699	791	22,700	21,600	11,600	2,170	16,000	10,100	3,550	800	1,050	1,370
16	744	2,440	19,500	14,900	9,380	2,430	24,500	7,350	3,700	844	1,270	1,230
17	791	2,310	30,600	5,960	10,300	2,460	23,300	8,070	3,380	852	1,970	1,030
18	869	3,570	36,900	6,490	8,400	1,790	21,200	7,280	10,000	1,110	655	1,200
19	910	3,400	29,400	5,260	8,010	2,450	16,100	5,280	8,080	1,190	811	1,170
20	594	2,640	37,300	6,680	8,480	4,020	12,900	4,660	7,770	616	991	987
21	646	2,050	25,700	5,540	7,570	942	14,800	3,880	10,500	1,560	2,350	1,170
22	675	1,030	21,300	4,950	7,110	1,330	15,000	3,390	7,680	546	2,150	1,150
23	718	790	19,100	5,390	8,990	1,210	15,900	2,250	4,510	1,490	1,860	1,310
24	938	828	18,200	3,090	8,540	2,460	15,700	3,170	4,030	1,090	1,880	961
25	1,820	1,140	31,300	2,910	7,470	2,760	14,900	2,710	2,860	1,150	2,330	1,280
26	1,380	2,290	20,100	4,710	5,250	2,790	12,900	3,660	2,250	808	1,050	1,260
27	1,240	5,020	22,800	5,410	3,470	11,100	12,400	5,590	1,430	3,280	990	1,240
28	1,150	6,230	16,900	10,300	5,650	12,800	10,600	5,150	1,360	1,770	1,070	e1,620
29	1,470	2,230	14,600	22,400	---	10,300	8,190	7,680	2,100	2,880	1,390	e2,100
30	902	1,300	10,200	20,900	---	14,100	5,780	6,410	1,460	2,160	1,530	2,220
31	940	---	9,280	21,100	---	13,400	---	4,520	---	3,430	1,140	---
Total	28,846	48,268	539,500	444,960	343,640	151,512	453,470	516,950	213,390	44,683	102,297	38,048
Mean	931	1,609	17,400	14,350	12,270	4,887	15,120	16,680	7,113	1,441	3,300	1,268
Max	1,820	6,230	48,600	43,800	34,300	14,100	24,500	65,800	23,400	3,430	13,700	2,220
Min	594	449	1,790	2,910	3,470	942	5,780	2,250	1,360	546	655	900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	3,443	6,808	11,130	12,020	14,070	15,840	12,050	9,385	6,059	4,167	3,762	2,851
Max	15,260	29,580	26,520	24,690	30,880	37,830	23,180	29,230	22,100	13,240	15,120	12,870
(WY)	(1980)	(1986)	(1973)	(1952)	(1994)	(1963)	(1940)	(1996)	(1981)	(1958)	(1956)	(2003)
Min	439	369	1,648	1,840	3,781	4,887	3,781	1,836	926	676	592	482
(WY)	(1954)	(1954)	(1966)	(1977)	(1941)	(2009)	(1946)	(1982)	(1965)	(1966)	(1965)	(1946)

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SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1939 - 2009	
Annual total	3,624,313		2,925,564			
Annual mean	9,902		8,015		8,433	
Highest annual mean					13,010	1994
Lowest annual mean					4,995	1966
Highest daily mean	67,300	Jun 5	65,800	May 5	154,000	Nov 5, 1985
Lowest daily mean	449	Nov 2	449	Nov 2	177	Sep 11, 1988
Annual seven-day minimum	623	Nov 7	623	Nov 7	267	Nov 4, 1953
Maximum peak flow			94,400	May 4	^a 220,000	Nov 5, 1985
Maximum peak stage			20.77	May 4	^b 39.39	Nov 5, 1985
10 percent exceeds	25,900		21,400		21,000	
50 percent exceeds	6,340		3,630		4,890	
90 percent exceeds	820		865		1,060	

^a From rating curve extended above 131,000 ft³/s.

^b From outside floodmarks, datum then in use.

