

MONONGAHELA RIVER BASIN

03075070 MONONGAHELA RIVER AT ELIZABETH, PA

LOCATION.--Lat 40°15'44", long 79°54'05", Allegheny County, Hydrologic Unit 05020005, on right bank 30 ft landward from upstream end of guide wall, 1,050 ft upstream from dam at lock 3 at Elizabeth, 0.4 mi downstream from Lobbs Creek, at mile 24.0.

DRAINAGE AREA.--5,340 mi².

PERIOD OF RECORD.--October 1933 to current year. Published as "*at Charleroi*" (station 03075000) October 1933 to September 1976. Monthly discharge prior to 1940, adjusted for reservoir contents, published in WSP 1305. Records for March 1886 to March 1905 (high-water periods, only), published in WSP 169, are unreliable and should not be used (peak discharge of July 11, 1888, as published in WSP 183, is still considered reliable).

REVISED RECORDS.--WSP 758: Drainage area. WSP 783: 1888 (M). WSP 1435: 1934, 1936. See also "*PERIOD OF RECORD.*"

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 717.90 ft above sea level (U.S. Army Corps of Engineers bench mark). From Oct. 1, 1967 to Sept. 30, 1976, at site 17.5 mi upstream at datum 15.70 ft higher. Prior to Oct. 1, 1967, water-stage recorder at site 17.9 mi upstream at datum 17.43 ft higher. Oct. 1, 1965 to Sept. 30, 1967, auxiliary staff gage, Apr. 14, 1966 to Sept. 30, 1967, auxiliary water-stage recorder and Oct. 1, 1967 to Nov. 4, 1990, water-stage recorder at present site at datum 7.60 ft higher.

REMARKS.--No estimated daily discharges. Records good, except those below 2,500 ft³/s, which are fair. Flow regulated by locks above station, since 1938 by Tygart Lake (station 03055500), since 1926 by Lake Lynn, and since 1990 by Stonewall Jackson Lake, combined capacity, 432,000 acre-ft. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1960	944	1440	1730	8160	12700	7400	4330	2910	1290	1090	429
2	1570	2020	898	2480	7250	16400	11500	4850	2990	1330	891	1060
3	1510	4580	815	3030	6810	17000	9170	4100	2680	1740	989	803
4	1910	2710	1030	6950	8240	30600	6430	3900	2300	1130	660	571
5	1830	786	864	6640	5950	30100	6600	3050	1720	1090	1710	681
6	1790	978	1010	5090	6570	31300	5940	3140	1230	1050	854	790
7	1730	991	1430	4770	8330	46900	5990	2720	2590	728	619	658
8	2310	801	1190	3960	25800	32500	5510	3250	1720	869	588	942
9	2230	1310	1530	12100	27500	28400	7580	3030	1400	576	903	1820
10	3010	758	1710	24500	21300	20100	24400	2850	872	775	1050	1780
11	2450	1410	1250	17900	15900	13500	16600	2510	1010	830	772	798
12	2660	814	4040	16400	13000	11000	16000	1840	1280	826	836	969
13	2400	537	1870	17300	10800	11200	11000	2580	918	477	980	841
14	1810	1050	2670	31200	8260	10600	11400	2140	1670	426	906	515
15	1430	995	4850	53000	7800	11800	9040	3040	1240	779	898	905
16	1890	688	2470	42200	6850	14700	10600	3010	1510	492	684	837
17	1140	967	2000	28100	5970	13900	7690	2250	1580	592	664	640
18	2070	857	1950	25600	5810	33800	5900	2630	1110	794	404	760
19	891	1060	1870	32900	5120	42300	7300	9460	838	566	764	851
20	1840	941	2320	27500	5820	31100	10400	6140	1330	524	810	843
21	2100	614	2150	22000	4670	25300	12200	4650	895	646	904	541
22	1820	1260	2740	24500	6430	26200	17000	6020	702	1130	583	1010
23	2040	807	4790	29500	4740	25300	15000	7640	1010	750	520	945
24	1970	1320	4950	29300	3800	20400	23500	17100	952	758	848	569
25	1650	709	3630	39900	4180	16700	18900	17400	926	553	671	586
26	1110	970	3490	29600	3160	14100	15200	13900	609	745	1340	586
27	1560	830	1870	27300	4110	13100	13800	9330	902	634	995	828
28	1860	1130	2430	23000	3630	10900	11600	7120	895	1180	696	810
29	1480	1350	2960	18200	---	9580	7090	4750	989	2220	978	619
30	1270	1000	2530	11000	---	5990	7070	3350	1370	2180	725	2270
31	1570	---	2750	9830	---	7270	---	2900	---	1360	460	---
TOTAL	56861	35187	71497	627480	245960	634740	337810	164980	42148	29040	25792	26257
MEAN	1834	1173	2306	20240	8784	20480	11260	5322	1405	937	832	875
MAX	3010	4580	4950	53000	27500	46900	24400	17400	2990	2220	1710	2270
MIN	891	537	815	1730	3160	5990	5510	1840	609	426	404	429
(†)	-683	-313	+84	+6.2	-20	+639	+981	+100	-225	-296	-370	-372

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1999, BY WATER YEAR (WY)

MEAN	3620	6776	11700	13800	15460	18310	13390	10230	6321	4323	4149	2935
MAX	16770	33750	29760	37480	33170	41930	26500	33610	24840	13570	17890	13300
(WY)	1980	1986	1973	1937	1994	1963	1940	1996	1981	1958	1956	1945
MIN	475	400	1991	2249	3210	6636	4478	2128	1009	915	812	581
(WY)	1954	1954	1966	1977	1934	1987	1971	1982	1936	1966	1957	1936

† Change in contents, equivalent in cubic feet per second, in Tygart Lake, Stonewall Jackson Lake and Lake Lynn. Records of contents in Lake Lynn furnished by Allegheny Energy Supply. Records of contents in Tygart Lake and Stonewall Jackson Lake furnished by U.S. Army Corps of Engineers.

MONONGAHELA RIVER BASIN

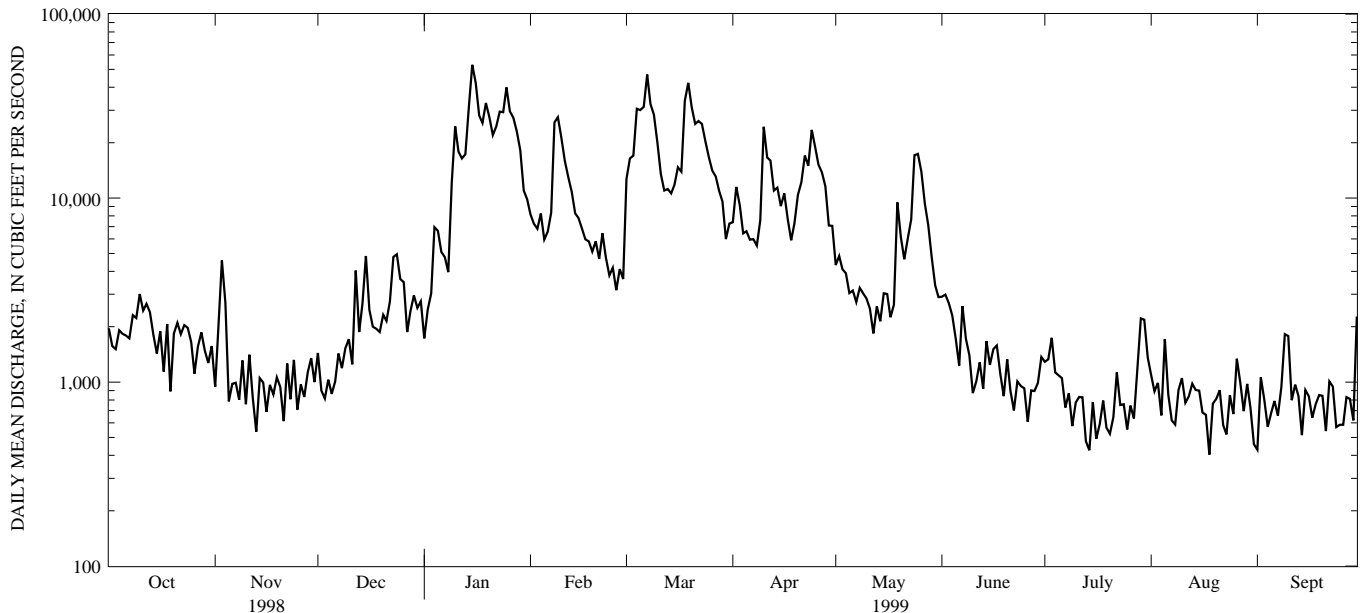
03075070 MONONGAHELA RIVER AT ELIZABETH, PA--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1934 - 1999	
ANNUAL TOTAL	3364538		2297752			
ANNUAL MEAN	9218	† +3.8	6295	† -40	9225	
HIGHEST ANNUAL MEAN					14400	1996
LOWEST ANNUAL MEAN					5282	1954
HIGHEST DAILY MEAN	58700	Jan 9	53000	Jan 15	158000	Jan 20 1996
LOWEST DAILY MEAN	537	Nov 13	404	Aug 18	206	Jun 29 1936
ANNUAL SEVEN-DAY MINIMUM	844	Nov 12	589	Jul 13	301	Oct 1 1936
INSTANTANEOUS PEAK FLOW			58200	Jan 15	ab 178000	Nov 6 1985
INSTANTANEOUS PEAK STAGE			17.57	Jan 15	30.39	Jan 20 1996
10 PERCENT EXCEEDS	24400		18500		22400	
50 PERCENT EXCEEDS	3890		2040		5180	
90 PERCENT EXCEEDS	1220		700		1130	

† Change in contents, equivalent in cubic feet per second, in Tygart Lake, Stonewall Jackson Lake and Lake Lynn. Records of contents in Lake Lynn furnished by Allegheny Energy Supply. Records of contents in Tygart Lake and Stonewall Jackson Lake furnished by U.S. Army Corps of Engineers.

a From rating curve extended above 110,000 ft³/s.

b Gage height 23.60 ft, datum then in use.



1-YEAR HYDROGRAPH
OCTOBER 1, 1998 TO SEPTEMBER 30, 1999