

MAHONING CREEK BASIN

03034000 MAHONING CREEK AT PUNXSUTAWNEY, PA

LOCATION.--Lat 40°56'21", long 79°00'31", Jefferson County, Hydrologic Unit 05010006, on right bank 75 ft downstream from Williams Run, 1.8 mi upstream from bridge on Diamond Road at Sportsburg, 1.9 mi downstream from Sawmill Run, and 2 mi west of Punxsutawney.

DRAINAGE AREA.--158 mi².

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

REVISED RECORDS.--WDR PA-87-3: 1977-86 (P).

GAGE.--Water-stage recorder. Datum of gage is 1,206.14 ft above sea level (U.S. Army Corps of Engineers benchmark). Prior to Oct. 1, 1946, at site 2.9 mi upstream at datum 13.30 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diurnal fluctuations at low flow by mine pumpage into stream above station. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936 reached a stage of 15.6 ft, from floodmark at former site and datum, discharge, 12,500 ft³/s, from rating curve extended above 4,300 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Jan. 24	1200	*5,480	*8.89	No other peak greater than base discharge.			

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	16	22	21	e33	347	259	247	241	99	51	44	17
2	15	21	20	e33	585	210	256	217	104	110	46	17
3	17	21	19	e37	678	225	237	198	118	94	36	16
4	32	21	20	e35	612	399	253	186	97	59	29	14
5	30	22	20	e35	579	317	457	175	84	48	29	14
6	23	22	20	e36	483	312	354	164	77	42	30	22
7	20	22	19	e38	438	295	321	154	73	38	26	55
8	54	21	20	e43	592	245	285	253	71	34	35	34
9	66	21	20	e105	481	253	631	261	64	32	38	23
10	53	28	20	211	457	238	1740	209	59	53	25	19
11	44	41	18	176	397	216	1240	183	56	46	21	16
12	32	36	18	146	407	207	1090	168	53	36	20	15
13	26	29	17	256	403	196	818	154	50	31	30	15
14	22	25	17	519	330	196	631	144	50	28	69	21
15	22	20	15	318	295	193	502	134	54	27	39	24
16	22	20	15	229	280	200	469	122	49	25	28	21
17	20	19	19	179	277	268	475	115	47	23	23	24
18	21	19	19	275	271	744	418	109	47	36	21	23
19	25	19	19	588	242	697	397	112	45	26	21	18
20	25	21	22	364	220	533	420	103	42	37	23	18
21	24	23	40	269	196	503	396	94	40	36	30	24
22	23	23	423	327	172	602	510	91	39	122	26	23
23	22	23	182	1560	165	466	574	119	37	81	24	20
24	21	21	e100	4420	159	416	681	240	36	51	32	17
25	22	19	e46	2000	153	394	564	393	34	50	19	16
26	21	23	e44	1000	148	342	485	240	35	45	33	16
27	21	23	e36	668	142	313	406	189	35	39	76	15
28	21	22	e36	673	215	296	343	155	71	35	43	15
29	21	22	e36	688	---	283	298	134	96	39	31	25
30	21	20	e36	526	---	265	263	119	85	38	23	252
31	22	---	e34	413	---	245	---	107	---	34	19	---
TOTAL	824	689	1391	16200	9724	10328	15761	5283	1847	1446	989	849
MEAN	26.6	23.0	44.9	523	347	333	525	170	61.6	46.6	31.9	28.3
MAX	66	41	423	4420	678	744	1740	393	118	122	76	252
MIN	15	19	15	33	142	193	237	91	34	23	19	14
CFSM	.17	.15	.28	3.31	2.20	2.11	3.33	1.08	.39	.30	.20	.18
IN.	.19	.16	.33	3.81	2.29	2.43	3.71	1.24	.43	.34	.23	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1999, BY WATER YEAR (WY)

MEAN	118	223	327	342	411	565	468	335	209	155	106	94.1
MAX	394	715	769	1025	1013	1249	909	722	1210	855	670	572
(WY)	1987	1986	1973	1952	1975	1964	1994	1953	1972	1977	1956	1996
MIN	18.1	23.0	27.2	61.0	96.6	132	112	79.9	48.9	26.4	23.0	16.9
(WY)	1965	1999	1961	1961	1993	1969	1946	1941	1991	1988	1949	1964

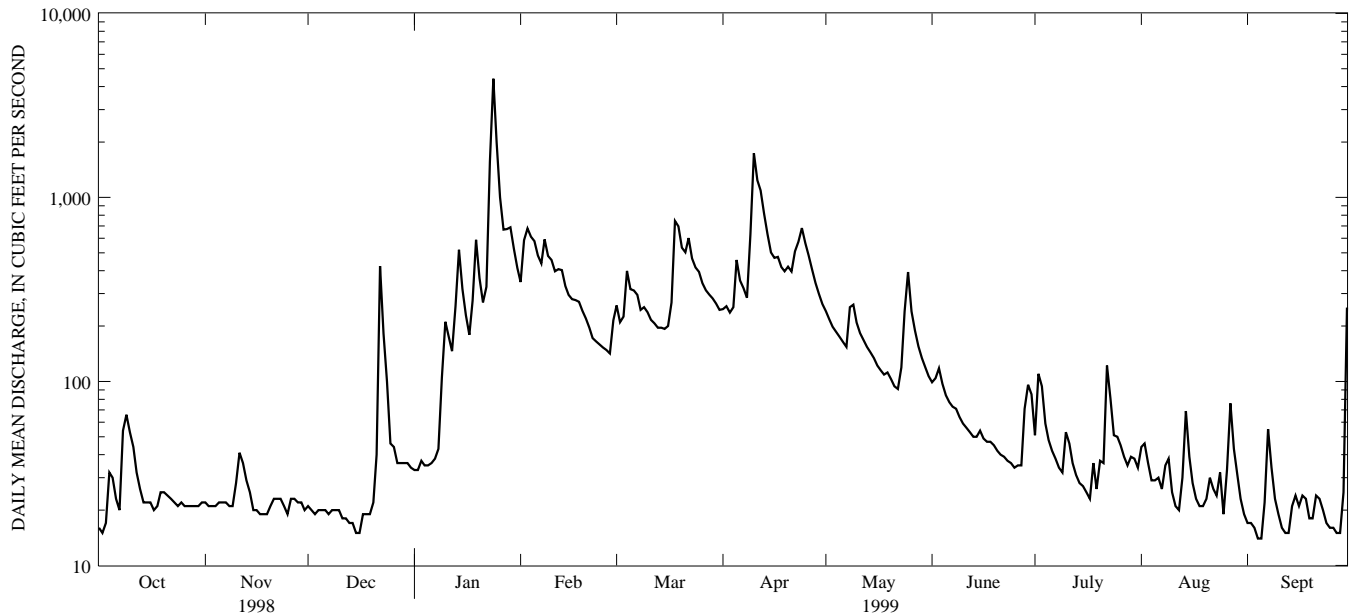
e Estimated.

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03034000 MAHONING CREEK AT PUNXSUTAWNEY, PA--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1939 - 1999	
ANNUAL TOTAL	80003		65331			
ANNUAL MEAN	219		179		279	
HIGHEST ANNUAL MEAN					433	1956
LOWEST ANNUAL MEAN					177	1963
HIGHEST DAILY MEAN	2140	Apr 15	4420	Jan 24	13200	Jun 23 1972
LOWEST DAILY MEAN	15	Sep 16	14	Sep 4,5	12	Oct 19 1939
ANNUAL SEVEN-DAY MINIMUM	16	Sep 13	17	Dec 11	13	Oct 14 1939
INSTANTANEOUS PEAK FLOW			a5480	Jan 24	a20400	Jul 19 1996
INSTANTANEOUS PEAK STAGE			8.89	Jan 24	b18.38	Jul 19 1996
INSTANTANEOUS LOW FLOW			12	Dec 15,16	2.6	Sep 26 1939
ANNUAL RUNOFF (CFSM)	1.39		1.13		1.76	
ANNUAL RUNOFF (INCHES)	18.84		15.38		23.97	
10 PERCENT EXCEEDS	583		467		626	
50 PERCENT EXCEEDS	79		47		154	
90 PERCENT EXCEEDS	19		20		33	

a From rating curve extended above 4,300 ft³/s on basis of slope-area measurement at gage height 13.01 ft.
 b From floodmark in gage well.



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