

MAHONING CREEK BASIN

03034000 MAHONING CREEK AT PUNXSUTAWNEY, PA
(Pennsylvania Water-Quality Network Station)

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.

WATER-DISCHARGE RECORDS

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 National Geodetic Vertical Datum of 1929 (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)
Mar. 26	2300	3,340	6.82	June 6	2200	*6,040	*9.37

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	45	274	163	791	202	624	336	495	131	131	35
2	31	45	195	151	741	205	517	476	270	122	97	34
3	31	58	158	e130	586	454	452	474	213	115	77	34
4	30	57	134	128	480	439	384	389	189	103	67	33
5	30	50	120	e118	380	346	339	345	287	93	66	31
6	28	46	107	121	335	341	313	311	3510	83	75	30
7	27	43	103	125	305	311	285	289	3260	79	58	29
8	27	42	97	116	280	280	269	267	1300	74	53	27
9	28	41	115	110	250	256	263	295	761	96	50	26
10	28	40	103	118	252	242	255	371	528	183	47	26
11	28	40	93	151	698	210	222	271	401	101	46	26
12	28	39	86	158	504	201	201	348	337	79	45	25
13	31	37	96	154	422	191	228	1010	298	72	44	24
14	38	36	115	140	347	180	331	1350	357	68	43	24
15	53	37	170	143	324	171	1120	981	504	65	41	41
16	50	36	142	140	303	302	1470	696	366	61	41	199
17	48	35	647	138	284	284	956	556	296	57	42	68
18	45	35	2080	132	246	264	680	1030	260	54	42	45
19	38	36	1040	116	225	257	527	920	221	67	41	39
20	35	50	626	135	226	343	464	696	192	102	40	39
21	33	53	435	129	303	497	394	551	173	62	39	37
22	33	45	338	127	301	411	357	451	156	54	37	34
23	39	41	302	126	271	369	317	381	145	71	64	33
24	367	39	369	356	252	340	278	338	136	96	119	31
25	174	164	301	623	244	336	264	326	154	61	118	30
26	96	246	263	449	247	1120	246	289	131	71	60	32
27	76	141	244	370	249	2210	218	255	284	361	48	171
28	65	135	226	330	224	1190	281	233	324	237	43	247
29	56	242	205	306	---	827	398	243	186	160	43	105
30	52	236	e162	475	---	901	335	205	149	159	40	70
31	49	---	173	654	---	698	---	212	---	122	37	---
TOTAL	1726	2190	9519	6632	10070	14378	12988	14895	15883	3259	1794	1625
MEAN	55.7	73.0	307	214	360	464	433	480	529	105	57.9	54.2
MAX	367	246	2080	654	791	2210	1470	1350	3510	361	131	247
MIN	27	35	86	110	224	171	201	205	131	54	37	24
CFSM	0.35	0.46	1.94	1.35	2.28	2.94	2.74	3.04	3.35	0.67	0.37	0.34
IN.	0.41	0.52	2.24	1.56	2.37	3.39	3.06	3.51	3.74	0.77	0.42	0.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2002, BY WATER YEAR (WY)

MEAN	117	218	323	334	410	558	468	331	212	151	105	92.7
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.

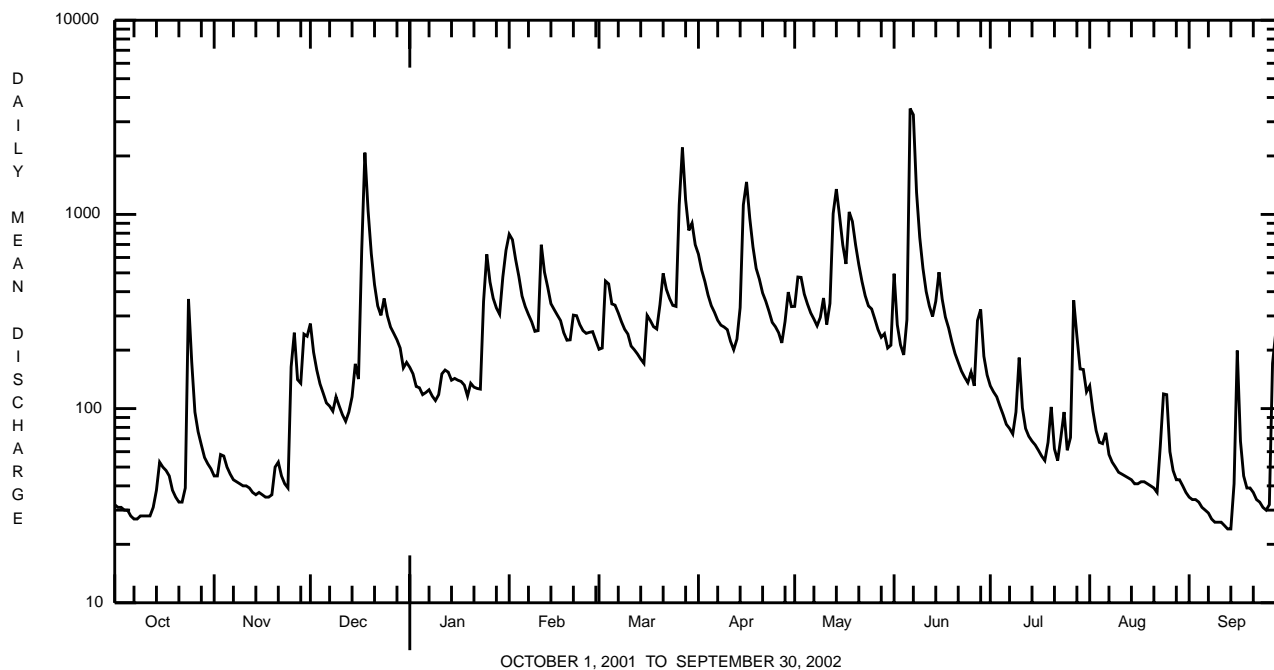
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SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1939 - 2002	
ANNUAL TOTAL	65016		94959			
ANNUAL MEAN	178		260		276	
HIGHEST ANNUAL MEAN					433	
LOWEST ANNUAL MEAN					177	
HIGHEST DAILY MEAN	2080	Dec 18	3510	Jun 6	13200	Jun 23 1972
LOWEST DAILY MEAN	24	Sep 13	24	Sep 13,14	12	Oct 19 1939
ANNUAL SEVEN-DAY MINIMUM	25	Sep 7	25	Sep 8	13	Oct 14 1939
MAXIMUM PEAK FLOW			6040	Jun 6	a 20400	Jul 19 1996
MAXIMUM PEAK STAGE			9.37	Jun 6	b 18.38	Jul 19 1996
INSTANTANEOUS LOW FLOW			24	Sep 13-15	2.6	Sep 26 1939
ANNUAL RUNOFF (CFSM)	1.13		1.65		1.75	
ANNUAL RUNOFF (INCHES)	15.31		22.36		23.72	
10 PERCENT EXCEEDS	455		521		620	
50 PERCENT EXCEEDS	91		162		152	
90 PERCENT EXCEEDS	32		35		34	

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.



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03034000 MAHONING CREEK AT PUNXSUTAWNEY, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 210-233.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (µS/CM) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (µS/CM) (90095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA) (00916)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG) (00927)	ANC WATER UNFLTRD FET LAB (MG/L AS CACO3) (00417)
JUN 2002 19...	1130	9813	222	40	11.8	7.4	426	410	15.3	140	39.2	11.5	46
AUG 28...	1230	9813	44	40	9.3	7.7	502	487	21.1	190	51.8	15.3	68

Date	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	COPPER, TOTAL RECOV-ERABLE (µG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (µG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (µG/L AS PB) (01051)
JUN 2002 19...	109	266	10	<.020	.59	<.040	.73	.01	.020	1.4	<10	660	<1.0
AUG 28...	122	380	6	.170	.45	<.200	.83	.04	.060	2.4	<10	660	<1.0

Date	MANGA-NESE, TOTAL RECOV-ERABLE (µG/L AS MN) (01055)	NICKEL, TOTAL RECOV-ERABLE (µG/L AS NI) (01067)	ZINC, TOTAL RECOV-ERABLE (µG/L AS ZN) (01092)
JUN 2002 19...	220	<50	<10
AUG 28...	120	<50	10