

SWATARA CREEK BASIN

01572190 SWATARA CREEK NEAR INWOOD, PA

LOCATION.--Lat 40°28'45", long 76°31'52", Lebanon County, Hydrologic Unit 02050305, on right bank 20 ft downstream from single-span steel-truss bridge on Appalachian Trail, 0.4 mi upstream from steel-truss bridge at Inwood, 0.5 mi downstream from Trout Run, and 2.0 mi north of Lickdale.

DRAINAGE AREA.--167 mi².

PERIOD OF RECORD.--October 1988 to January 1991, October 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 426.13 ft above North American Vertical Datum of 1988.

REMARKS.--Records good except those for estimated daily discharges, which are poor. The Pennsylvania American Water Company diverts water upstream from station for municipal supply of city of Lebanon. Diversion for the year was equivalent to a mean daily discharge of 10.2 ft³/s. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Mar. 21	0515	*4,460	*11.25	Aug. 4	1630	2,060	7.64
June 7	2045	2,330	8.10	Aug. 11	2015	2,970	9.14
June 13	0915	3,170	9.45	Sept. 23	1215	3,600	10.07
June 21	1345	4,040	10.69				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	380	242	577	169	231	635	243	1290	291	122	138
2	59	313	212	1680	174	307	594	272	1010	264	143	209
3	51	263	199	1160	170	e385	523	272	750	243	129	468
4	64	230	e158	889	304	340	469	232	1330	218	966	538
5	72	202	e160	699	e200	304	471	213	1160	197	1170	323
6	64	304	e150	600	e150	573	427	209	859	184	1610	236
7	50	255	e140	527	e155	463	392	209	1270	176	928	195
8	45	210	e150	494	e135	363	383	273	1640	224	622	171
9	43	177	e140	524	e120	437	408	239	1120	169	601	155
10	46	183	e150	577	e130	e400	461	218	837	163	700	140
11	434	182	288	504	e115	355	918	215	668	186	1560	129
12	754	217	1300	428	e120	317	1480	204	894	162	1630	121
13	403	372	900	384	e110	449	989	188	2210	134	964	147
14	272	304	1700	349	e120	783	752	173	1080	121	691	201
15	207	278	1520	323	e110	647	629	162	737	113	504	182
16	406	283	1040	289	e100	778	549	160	577	107	434	498
17	605	688	752	e230	e110	1100	475	182	482	101	413	300
18	377	992	593	e200	e120	1420	427	169	609	97	327	226
19	282	721	514	e210	e135	1320	405	158	507	102	280	377
20	235	569	1010	e200	e130	1590	363	144	628	91	247	417
21	193	475	1010	e185	e160	3540	341	154	3380	85	223	314
22	165	526	768	e170	e220	1960	350	150	1990	161	206	275
23	148	536	633	e155	e700	1320	312	139	1340	265	201	2360
24	130	441	532	e160	633	987	278	337	944	869	171	1480
25	110	394	518	e170	390	794	258	445	722	336	156	905
26	333	349	478	e150	e255	697	347	830	584	211	147	687
27	286	337	407	e135	e250	681	370	833	489	166	153	553
28	235	301	373	e138	252	545	286	642	414	156	141	551
29	209	272	352	e142	---	574	264	612	363	135	127	442
30	303	261	329	e145	---	727	259	474	327	116	149	336
31	440	---	321	166	---	704	---	439	---	104	154	---
TOTAL	7093	11015	17039	12560	5737	25091	14815	9190	30211	5947	15869	13074
MEAN	229	367	550	405	205	809	494	296	1007	192	512	436
MAX	754	992	1700	1680	700	3540	1480	833	3380	869	1630	2360
MIN	43	177	140	135	100	231	258	139	327	85	122	121
CFSM	1.37	2.20	3.29	2.43	1.23	4.85	2.96	1.78	6.03	1.15	3.07	2.61
IN.	1.58	2.45	3.80	2.80	1.28	5.59	3.30	2.05	6.73	1.32	3.53	2.91

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

	172	281	361	387	333	582	481	373	295	159	121	122
MEAN	172	281	361	387	333	582	481	373	295	159	121	122
MAX	538	662	1098	987	832	1263	1325	1184	1007	576	512	436
(WY)	1997	1993	1997	1996	1998	1994	1993	1989	2003	1989	2003	2003
MIN	35.1	40.8	35.8	94.6	96.4	271	165	123	58.3	26.2	31.5	32.7
(WY)	2002	2002	1999	2002	2002	1990	1995	1999	1999	1999	1999	1995

e Estimated.

SWATARA CREEK BASIN

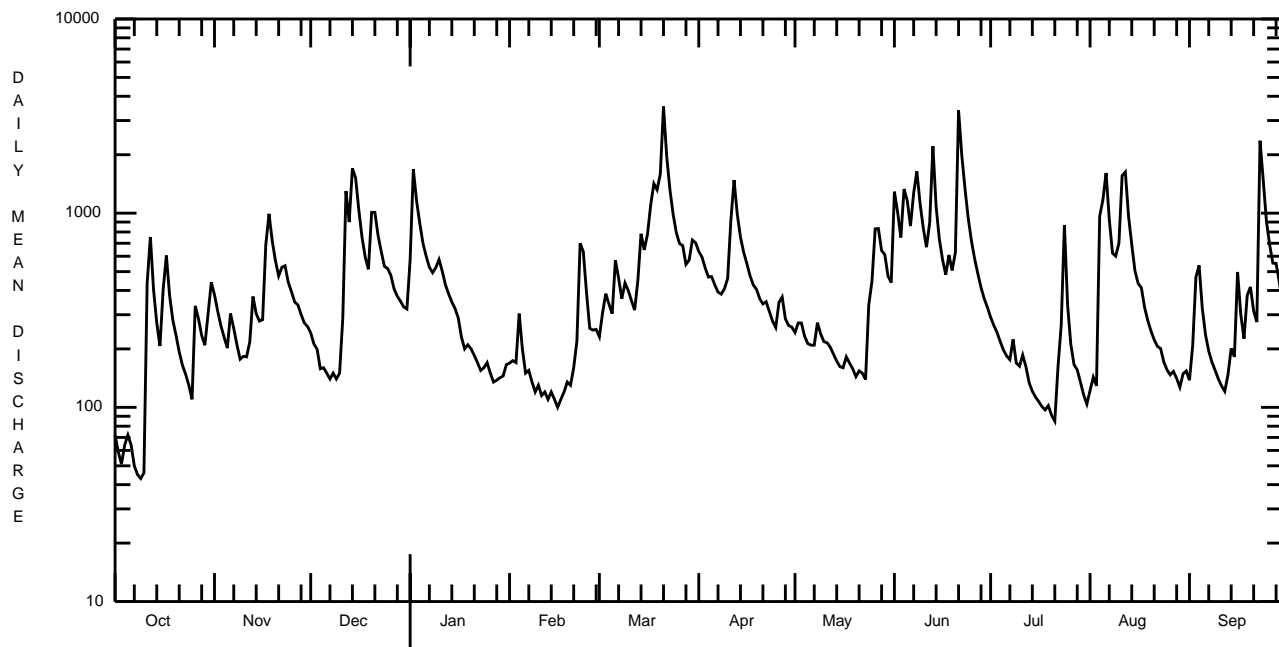
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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	81405		167641			
ANNUAL MEAN	223		459		301	
HIGHEST ANNUAL MEAN					459	2003
LOWEST ANNUAL MEAN					140	2002
HIGHEST DAILY MEAN	1700	Dec 14	3540	Mar 21	6200	Jan 20 1996
LOWEST DAILY MEAN	19	Sep 12	43	Oct 9	17	Aug 2 1999 ^a
ANNUAL SEVEN-DAY MINIMUM	22	Sep 8	55	Oct 4	17	Aug 2 1999
MAXIMUM PEAK FLOW			4460	Mar 21	^b 9510	Nov 28 1993
MAXIMUM PEAK STAGE			11.25	Mar 21	16.20	Nov 28 1993
INSTANTANEOUS LOW FLOW			42	Oct 10	17	Aug 2 1999 ^c
ANNUAL RUNOFF (CFSM)	1.34		2.75		1.80	
ANNUAL RUNOFF (INCHES)	18.13		37.34		24.46	
10 PERCENT EXCEEDS	512		988		667	
50 PERCENT EXCEEDS	138		312		163	
90 PERCENT EXCEEDS	33		130		43	

^a Also Aug. 3-8, 12, 13.

^b From rating curve extended above 4,500 ft³/s.

^c Also Aug. 3-8, 12, 13, Sept. 5, 1999.



OCTOBER 1, 2002 TO SEPTEMBER 30, 2003