

## 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 mi<sup>2</sup>.

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

**GAGE.**--Water-stage recorder. Elevation of gage is 430 ft above sea level, from topographic map.

**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 10.8 ft<sup>3</sup>/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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)	Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)
Mar. 22	0830	*4,550	*11.30	June 26	0830	2,320	8.09

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	802	73	190	149	e120	796	538	222	253	327	220	120
2	418	82	170	143	e115	645	480	223	269	277	937	171
3	279	200	158	143	e105	534	446	201	213	247	511	118
4	269	128	148	154	e100	443	703	189	186	248	801	100
5	346	103	137	188	e98	384	609	184	178	212	372	74
6	258	93	159	145	e95	331	501	184	467	181	276	60
7	207	86	166	126	e90	291	450	169	375	160	264	57
8	171	83	144	117	e90	266	444	156	252	142	198	55
9	153	82	129	112	e90	250	903	148	208	133	160	53
10	304	80	131	231	e110	239	771	146	180	132	137	50
11	376	78	143	548	e120	291	658	213	160	124	118	52
12	277	75	129	384	e130	899	588	162	203	111	110	52
13	231	71	124	322	e120	640	499	160	346	102	116	233
14	218	70	367	e245	e340	513	445	431	523	103	106	134
15	180	68	1010	e200	e530	441	409	238	402	205	97	130
16	156	64	752	e175	e400	394	384	186	371	323	123	96
17	142	63	526	e150	e360	747	410	165	295	168	100	78
18	141	63	408	e140	e330	616	433	153	279	130	84	70
19	128	62	335	e135	e300	520	366	210	362	111	82	114
20	130	61	321	e130	e250	463	326	316	288	112	72	423
21	132	65	375	e125	e225	1010	346	320	e246	99	66	225
22	117	63	297	e120	e210	3890	411	273	e560	105	64	147
23	112	62	256	e120	252	1860	351	402	378	89	66	118
24	104	63	236	e115	365	1160	322	751	293	81	77	110
25	98	103	206	e115	530	881	303	1050	290	80	69	102
26	92	119	206	e115	850	728	289	669	1760	76	59	146
27	88	571	199	e110	754	609	294	496	838	79	56	136
28	84	385	182	e110	1340	1400	281	423	542	77	92	107
29	80	280	173	e110	1030	969	263	363	459	70	77	91
30	77	228	162	e115	---	758	240	310	435	242	66	81
31	75	---	157	e120	---	628	---	275	---	302	60	---
TOTAL	6245	3624	8096	5212	9449	23596	13463	9388	11611	4848	5636	3503
MEAN	201	121	261	168	326	761	449	303	387	156	182	117
MAX	802	571	1010	548	1340	3890	903	1050	1760	327	937	423
MIN	75	61	124	110	90	239	240	146	160	70	56	50
CFSM	1.21	.72	1.56	1.01	1.95	4.56	2.69	1.81	2.32	.94	1.09	.70
IN.	1.39	.81	1.80	1.16	2.10	5.26	3.00	2.09	2.59	1.08	1.26	.78

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

MEAN	187	311	362	429	367	604	496	397	259	173	101	106
MAX	538	662	1098	987	832	1263	1325	1184	471	576	192	221
(WY)	1997	1993	1997	1996	1998	1994	1993	1989	1989	1989	1994	1999
MIN	45.0	43.6	35.8	108	149	271	165	123	58.3	26.2	31.5	32.7
(WY)	1998	1999	1999	1992	1992	1990	1995	1999	1999	1999	1999	1995

e Estimated.

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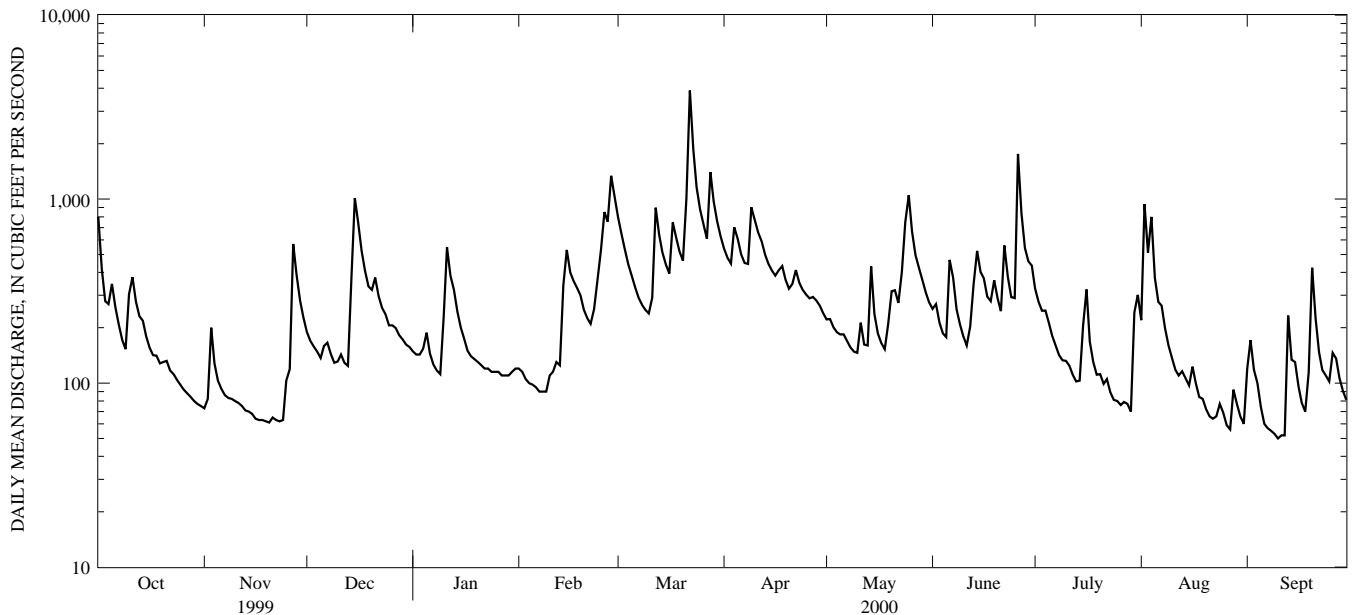
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SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	77473		104671			
ANNUAL MEAN	212		286		310	
HIGHEST ANNUAL MEAN					394	1994
LOWEST ANNUAL MEAN					175	1999
HIGHEST DAILY MEAN	2960	Jan 24	3890	Mar 22	6200	Jan 20 1996
LOWEST DAILY MEAN	17	Aug 2 <sup>a</sup>	50	Sep 10	17	Aug 2 1999 <sup>a</sup>
ANNUAL SEVEN-DAY MINIMUM	17	Aug 2	54	Sep 6	17	Aug 2 1999
INSTANTANEOUS PEAK FLOW			<sup>b</sup> 4550	Mar 22	<sup>b</sup> 9510	Nov 28 1993
INSTANTANEOUS PEAK STAGE			11.30	Mar 22	16.20	Nov 28 1993
INSTANTANEOUS LOW FLOW			50	Sep 10	17	Aug 2 1999 <sup>c</sup>
ANNUAL RUNOFF (CFSM)	1.27		1.71		1.86	
ANNUAL RUNOFF (INCHES)	17.26		23.32		25.26	
10 PERCENT EXCEEDS	437		594		700	
50 PERCENT EXCEEDS	143		186		174	
90 PERCENT EXCEEDS	24		77		49	

<sup>a</sup> Also Aug. 3-8, 12, 13.

<sup>b</sup> From rating curve extended above 4,500 ft<sup>3</sup>/s.

<sup>c</sup> Also Aug. 3-8, 12, 13, Sept. 5, 1999.



1-YEAR HYDROGRAPH  
OCTOBER 1, 1999 TO SEPTEMBER 30, 2000