

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 8.0 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. 27	0415	*1,670	*6.94	(No peaks above base discharge.)			

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	36	28	114	e51	148	58	458	472	168	72	29	37
2	35	30	83	e49	149	56	359	741	152	70	28	48
3	34	29	69	e49	130	256	315	787	138	67	28	41
4	33	28	62	e45	125	198	288	596	132	62	27	35
5	30	28	57	e46	e111	154	258	497	133	59	30	33
6	29	27	50	e45	e103	145	241	423	141	56	33	30
7	28	26	52	e46	103	135	221	379	226	54	31	27
8	27	28	54	e55	98	124	207	335	151	55	31	23
9	28	26	119	e51	92	119	201	382	129	55	28	22
10	29	26	98	e61	87	180	245	364	119	64	28	23
11	28	26	81	e75	146	151	205	285	114	55	28	21
12	29	25	72	118	124	139	184	268	112	49	26	19
13	29	25	69	107	109	138	183	324	116	48	26	22
14	28	26	83	e91	e97	138	213	491	139	47	29	21
15	97	25	112	84	e96	128	820	373	160	44	30	27
16	64	26	90	82	97	125	659	315	133	39	45	91
17	51	27	84	78	93	118	510	287	112	37	40	62
18	45	25	164	73	86	176	430	1000	101	35	31	43
19	39	25	170	e69	79	224	390	887	113	35	28	36
20	36	27	138	e91	80	433	414	638	116	37	28	32
21	34	28	117	e79	81	704	342	516	96	35	26	32
22	33	27	103	e68	75	494	342	433	89	37	24	38
23	33	27	93	e65	70	385	310	379	83	39	27	101
24	32	26	98	131	66	324	266	338	81	71	37	68
25	31	80	89	275	63	292	257	299	81	45	45	46
26	29	228	77	211	64	329	254	276	76	38	35	43
27	29	89	e70	173	66	1270	222	254	90	36	29	240
28	28	64	e66	152	61	783	370	229	144	40	30	370
29	27	56	e61	141	---	588	604	212	92	39	41	150
30	29	67	e57	135	---	483	487	193	79	35	49	94
31	29	---	e52	136	---	407	---	181	---	31	40	---
TOTAL	1089	1225	2704	2932	2699	9254	10255	13154	3616	1486	987	1875
MEAN	35.1	40.8	87.2	94.6	96.4	299	342	424	121	47.9	31.8	62.5
MAX	97	228	170	275	149	1270	820	1000	226	72	49	370
MIN	27	25	50	45	61	56	183	181	76	31	24	19
CFSM	0.21	0.24	0.52	0.57	0.58	1.79	2.05	2.54	0.72	0.29	0.19	0.37
IN.	0.24	0.27	0.60	0.65	0.60	2.06	2.28	2.93	0.81	0.33	0.22	0.42

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

MEAN	168	274	347	385	343	564	480	379	240	156	90.9	98.2
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	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.

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SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	57565		51276			
ANNUAL MEAN	158		140		288	
HIGHEST ANNUAL MEAN					394	1994
LOWEST ANNUAL MEAN					140	2002
HIGHEST DAILY MEAN	997	Mar 30	1270	Mar 27	6200	Jan 20 1996
LOWEST DAILY MEAN	22	Sep 19	19	Sep 12	17	Aug 2 1999 ^a
ANNUAL SEVEN-DAY MINIMUM	25	Sep 13	22	Sep 8	17	Aug 2 1999
MAXIMUM PEAK FLOW			1670	Mar 27	b9510	Nov 28 1993
MAXIMUM PEAK STAGE			6.94	Mar 27	16.20	Nov 28 1993
INSTANTANEOUS LOW FLOW			18	Sep 12	17	Aug 2 1999 ^c
ANNUAL RUNOFF (CFSM)	0.94		0.84		1.73	
ANNUAL RUNOFF (INCHES)	12.82		11.42		23.46	
10 PERCENT EXCEEDS	400		366		628	
50 PERCENT EXCEEDS	98		78		155	
90 PERCENT EXCEEDS	28		28		41	

^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.

