

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 sea level, using NAVD 1988 datum.

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 10.6 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)
Dec. 17	1800	*5,580	*12.52	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	58	126	e156	388	275	669	201	79	117	48	63
2	75	57	112	e141	e409	269	556	191	135	164	44	37
3	73	57	97	e132	391	257	470	180	196	110	43	29
4	73	56	e93	e122	332	251	438	167	159	108	73	29
5	142	54	e91	e147	317	268	377	155	114	174	89	36
6	114	52	e89	e145	296	239	434	143	97	148	59	33
7	94	53	e86	e135	281	225	491	135	87	110	49	28
8	79	53	e81	e134	269	251	425	132	79	100	43	26
9	71	53	e78	e131	256	270	415	132	72	105	37	25
10	70	102	e72	e124	405	277	486	125	65	96	35	25
11	69	104	e72	e117	434	274	468	118	67	96	49	33
12	64	75	e72	e113	358	270	515	110	64	83	41	29
13	61	67	e69	e110	325	576	481	106	121	76	43	26
14	59	65	e105	e110	314	615	434	98	78	70	41	28
15	57	65	e140	e110	357	523	401	94	87	66	40	28
16	57	61	191	110	352	470	592	90	88	63	36	24
17	63	58	4170	108	400	503	564	87	280	60	35	23
18	132	56	2440	106	337	476	626	90	135	52	32	23
19	166	53	1120	166	309	416	542	89	106	54	29	22
20	114	53	783	318	303	389	480	82	100	46	46	26
21	92	54	575	248	291	398	442	93	280	43	36	32
22	81	50	476	e193	259	501	403	235	369	41	34	27
23	74	e50	e368	e178	e241	415	366	203	374	39	40	24
24	71	e48	e317	e167	231	379	337	135	290	38	33	31
25	72	e47	e279	e158	262	348	302	103	218	39	29	283
26	69	129	e251	e148	343	322	281	106	175	159	28	115
27	67	185	e234	e138	311	297	262	117	151	72	27	72
28	65	126	e220	e132	289	277	245	147	134	55	27	58
29	60	110	e206	e127	---	268	220	123	121	52	29	47
30	58	134	e191	235	---	997	211	99	112	52	26	37
31	58	---	e172	419	---	868	---	85	---	50	30	---
TOTAL	2478	2185	13376	4878	9060	12164	12933	3971	4433	2538	1251	1319
MEAN	79.9	72.8	431	157	324	392	431	128	148	81.9	40.4	44.0
MAX	166	185	4170	419	434	997	669	235	374	174	89	283
MIN	57	47	69	106	231	225	211	82	64	38	26	22
CFSM	.48	.44	2.58	.94	1.94	2.35	2.58	.77	.88	.49	.24	.26
IN.	.55	.49	2.98	1.09	2.02	2.71	2.88	.88	.99	.57	.28	.29

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

MEAN	178	292	367	408	363	586	491	375	250	166	95.9	101
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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SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	104745		70586			
ANNUAL MEAN	286		193		301	
HIGHEST ANNUAL MEAN					394	1994
LOWEST ANNUAL MEAN					175	1999
HIGHEST DAILY MEAN	4170	Dec 17	4170	Dec 17	6200	Jan 20 1996
LOWEST DAILY MEAN	e47	Nov 25	22	Sep 19	17	Aug 2 1999 ^b
ANNUAL SEVEN-DAY MINIMUM	a51	Nov 19	25	Sep 13	17	Aug 2 1999
MAXIMUM PEAK FLOW			c5580	Dec 17	c9510	Nov 28 1993
MAXIMUM PEAK STAGE			12.52	Dec 17	16.20	Nov 28 1993
INSTANTANEOUS LOW FLOW			22	Sep 18,19,24	17	Aug 2 1999 ^d
ANNUAL RUNOFF (CFSM)	1.71		1.16		1.80	
ANNUAL RUNOFF (INCHES)	23.33		15.72		24.47	
10 PERCENT EXCEEDS	609		415		669	
50 PERCENT EXCEEDS	160		112		168	
90 PERCENT EXCEEDS	62		36		47	

- a Computed using estimated daily discharges.
- b Also Aug. 3-8, 12, 13.
- c From rating curve extended above 4,500 ft³/s.
- d Also Aug. 3-8, 12, 13, Sept. 5, 1999.
- e Estimated.

