

SWATARA CREEK BASIN

01573560 SWATARA CREEK NEAR HERSHEY, PA

LOCATION.--Lat 40°17'54", long 76°40'05", Dauphin County, Hydrologic Unit 02050305, on left bank, 0.4 mi downstream from Manada Creek, 0.5 mi upstream from State Highway 39, and 1.5 mi northwest of Hershey.

DRAINAGE AREA.--483 mi².

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder and gated concrete control. Datum of gage is 325.94 ft above National Geodetic Vertical Datum of 1929 (levels by Susquehanna River Basin Commission).

REMARKS.--Records fair except 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 7.3 ft³/s. No diversion by Hershey Chocolate U.S.A. Satellite and landline telemetry at station.

COOPERATION.--Records of daily diversion furnished by Hershey Chocolate U.S.A., a division of Hershey Foods Corporation.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 6,900 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Mar. 21	1500	*8,650	*6.90	June 22	0000	8,300	6.74

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	192	1130	464	1790	407	716	1720	671	2390	850	460	408
2	186	892	422	4690	426	1080	1590	825	2470	764	481	525
3	173	736	394	3430	439	2940	1410	763	1790	702	427	602
4	160	610	286	2930	639	1350	1250	709	3340	656	959	1040
5	198	522	e320	2300	978	1090	1280	682	3210	609	2480	771
6	182	813	e350	1900	587	2510	1220	561	2410	589	4800	561
7	149	792	e270	1630	501	2050	1060	548	3300	603	2640	496
8	112	589	e260	1500	459	1270	1110	671	5190	665	1560	427
9	96	495	e230	1640	377	1770	1330	711	3280	545	1360	384
10	98	477	e240	1760	398	2300	1630	636	2480	531	1890	333
11	686	478	547	1450	374	1250	2360	575	1950	547	2780	318
12	2120	615	3890	1210	347	1030	4050	561	1910	526	4760	302
13	1110	1130	2880	1070	309	1480	2870	526	4990	442	2420	366
14	708	882	4190	951	325	3320	2230	481	3100	382	1770	630
15	511	733	3990	e860	335	2480	1830	440	2150	366	1290	490
16	825	704	2860	e750	233	2660	1550	467	1610	354	1590	932
17	1720	1920	2120	e730	109	3010	1330	582	1310	336	1660	817
18	989	2730	1630	e560	e150	3300	1200	529	1460	314	1100	558
19	702	1820	1380	e530	e210	3020	1160	464	1510	483	875	920
20	576	1310	2040	e500	e300	3470	1030	422	1630	355	749	1140
21	476	1080	2570	e480	403	8050	938	429	6490	301	695	826
22	398	1280	1800	e400	711	4960	951	433	6260	684	650	655
23	335	1350	1530	e380	3010	3370	880	396	3890	1400	580	3820
24	315	1020	1290	e350	3100	2600	771	785	2730	3980	530	4190
25	302	851	1230	e330	1730	2140	703	1350	2130	1680	484	2260
26	748	744	1300	e340	1130	1860	903	2320	1680	961	470	1690
27	825	699	1090	e310	911	1970	1130	2680	1400	742	477	1320
28	559	666	955	e330	802	1530	825	1990	1190	633	478	1240
29	497	574	897	e370	---	1420	720	1720	1040	572	417	1130
30	1060	526	883	e380	---	1910	696	1350	942	473	407	875
31	1680	---	864	384	---	2110	---	1250	---	432	489	---
TOTAL	18688	28168	43172	36235	19700	74016	41727	26527	79232	22477	41728	30026
MEAN	603	939	1393	1169	704	2388	1391	856	2641	725	1346	1001
MAX	2120	2730	4190	4690	3100	8050	4050	2680	6490	3980	4800	4190
MIN	96	477	230	310	109	716	696	396	942	301	407	302
CFSM	1.25	1.94	2.88	2.42	1.46	4.94	2.88	1.77	5.47	1.50	2.79	2.07
IN.	1.44	2.17	3.33	2.79	1.52	5.70	3.21	2.04	6.10	1.73	3.21	2.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2003, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003		
MEAN	548	703	953	962	955	1428	1210	881	657	426	329	346																		
MAX	2632	1427	2693	3370	1963	3848	3207	2708	2641	1536	1346	1320																		
(WY)	1977	1993	1997	1979	1998	1994	1993	1989	2003	1989	2003	1987																		
MIN	85.3	109	111	79.9	220	459	420	295	158	78.9	81.8	73.0																		
(WY)	1981	2002	1981	1981	2002	1985	1995	1999	1999	1999	2002	1980																		

e Estimated.

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1976 - 2003	
ANNUAL TOTAL	197175		461696			
ANNUAL MEAN	540		1265		782	
HIGHEST ANNUAL MEAN					1265	
LOWEST ANNUAL MEAN					327	
HIGHEST DAILY MEAN	4190	Dec 14	8050	Mar 21	23800	Jan 25 1979
LOWEST DAILY MEAN	29	Aug 6	96	Oct 9	29	Aug 6 2002
ANNUAL SEVEN-DAY MINIMUM	52	Aug 6	142	Oct 4	52	Aug 6 2002
MAXIMUM PEAK FLOW			8650	Mar 21	29400	Sep 27 1975
MAXIMUM PEAK STAGE			6.90	Mar 21	15.36	Sep 27 1975
INSTANTANEOUS LOW FLOW			67	Feb 17	24	Aug 5 2002 ^a
ANNUAL RUNOFF (CFSM)	1.12		2.62		1.62	
ANNUAL RUNOFF (INCHES)	15.19		35.56		22.01	
10 PERCENT EXCEEDS	1230		2810		1740	
50 PERCENT EXCEEDS	318		860		439	
90 PERCENT EXCEEDS	81		338		129	

^a Also Aug. 6, Sept. 10, 14, 15, 21.

