

WEST BRANCH SUSQUEHANNA RIVER BASIN

01552000 LOYALSOCK CREEK AT LOYALSOCKVILLE, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°19'30", long 76°54'46", Lycoming County, Hydrologic Unit 02050206, on right bank 30 ft downstream from bridge on State Highway 973 at Loyalsockville, 2.5 mi downstream from Wallis Run, and 7.3 mi upstream from mouth.

DRAINAGE AREA.--435 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1925 to September 1974, October 1975 to current year. Prior to October 1925, monthly discharge only, published in WSP 1302. Prior to October 1969, published as "at Loyalsock".

REVISED RECORDS.--WSP 871: 1938(M). WSP 1051: 1926(M), 1933(M), 1936(M). WSP 1302: 1926-30. WSP 1502: 1932-33, 1935(M), 1937(M). WDR PA-99-2: Drainage area, 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 586.33 ft above National Geodetic Vertical Datum of 1929 (revised). August 1925 to Sept. 16, 1926, nonrecording gage, and Sept. 17, 1926, to June 13, 1988, water-stage recorder at site 500 feet downstream on left bank at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 26, 1975, reached a stage of 14.50 ft, from floodmark, discharge, 46,000 ft³/s (revised), from rating curve extended above 16,000 ft³/s on basis of slope-area measurement of peak flow.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 6,400 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Mar. 26	2330	*14,700	*9.76	May 13	2215	11,700	8.92

REVISIONS.--The maximum discharges for water years 1926-95 have been revised from review of historical data. The updated maximum discharges are available at the U.S. Geological Survey Home Page at [<http://waterdata.usgs.gov/pa/nwis/peak>].

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	627	296	2120	e460	1740	451	1300	959	448	234	81	42
2	532	e290	1490	e420	1870	430	1120	1090	408	212	75	44
3	459	e280	1160	491	1360	628	973	1240	344	196	68	45
4	404	e270	963	471	1160	820	859	995	306	180	66	57
5	356	e260	837	423	e900	596	761	875	294	165	68	49
6	328	e250	744	e350	841	575	698	784	680	150	64	41
7	309	e240	672	382	755	574	643	731	1830	141	64	36
8	288	e230	616	343	695	534	599	669	995	122	60	32
9	265	221	633	339	633	511	576	749	690	122	54	29
10	244	213	629	326	661	676	659	789	560	119	49	28
11	230	206	565	328	3210	706	604	678	478	114	44	28
12	219	201	549	333	2030	602	528	733	425	105	42	28
13	210	192	595	322	1530	572	520	4510	447	98	41	26
14	216	181	785	307	1130	556	679	7970	497	92	40	24
15	353	179	995	294	1030	531	1090	3710	1030	88	39	34
16	358	178	873	291	925	627	1110	2270	1570	84	38	59
17	407	173	844	279	845	820	905	1690	1060	80	38	67
18	409	165	1430	273	738	691	796	2540	811	75	37	63
19	340	159	1480	249	644	666	728	2610	1530	74	37	50
20	311	160	1200	224	623	732	682	1810	1160	150	44	42
21	293	164	1030	272	718	1000	662	1470	821	196	41	38
22	279	164	879	269	706	1070	626	1220	660	124	37	49
23	276	157	785	258	615	942	601	1040	557	112	38	737
24	440	153	786	283	549	879	547	900	483	147	48	535
25	536	395	730	512	519	824	516	786	427	165	64	271
26	448	1720	635	555	504	3430	525	695	378	123	66	179
27	399	1100	546	518	529	8830	482	626	338	101	67	426
28	362	834	e520	556	512	3860	599	558	320	102	54	1630
29	343	826	e480	650	---	2450	1350	510	299	106	48	760
30	326	984	e470	1150	---	1870	1070	482	262	111	45	450
31	308	---	e460	1460	---	1460	---	448	---	94	41	---
TOTAL	10875	10841	26501	13388	27972	38913	22808	46137	20108	3982	1598	5899
MEAN	350.8	361.4	854.9	431.9	999.0	1255	760.3	1488	670.3	128.5	51.55	196.6
MAX	627	1720	2120	1460	3210	8830	1350	7970	1830	234	81	1630
MIN	210	153	460	224	504	430	482	448	262	74	37	24
CFSM	0.81	0.83	1.97	0.99	2.30	2.89	1.75	3.42	1.54	0.30	0.12	0.45
IN.	0.93	0.93	2.27	1.14	2.39	3.33	1.95	3.95	1.72	0.34	0.14	0.50

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2002, BY WATER YEAR (WY)

MEAN	473.0	840.3	890.2	773.4	825.2	1472	1561	958.2	512.4	275.6	264.4	272.6
MAX	2512	2856	3033	3070	2961	4490	4236	2694	4327	1206	1797	1503
(WY)	1991	1951	1974	1996	1981	1936	1993	1946	1972	1928	1994	1933
MIN	20.2	28.4	80.5	34.1	108	449	363	220	92.4	41.6	31.5	13.8
(WY)	1965	1965	1931	1931	1931	1969	1946	1941	1991	1962	1964	1964

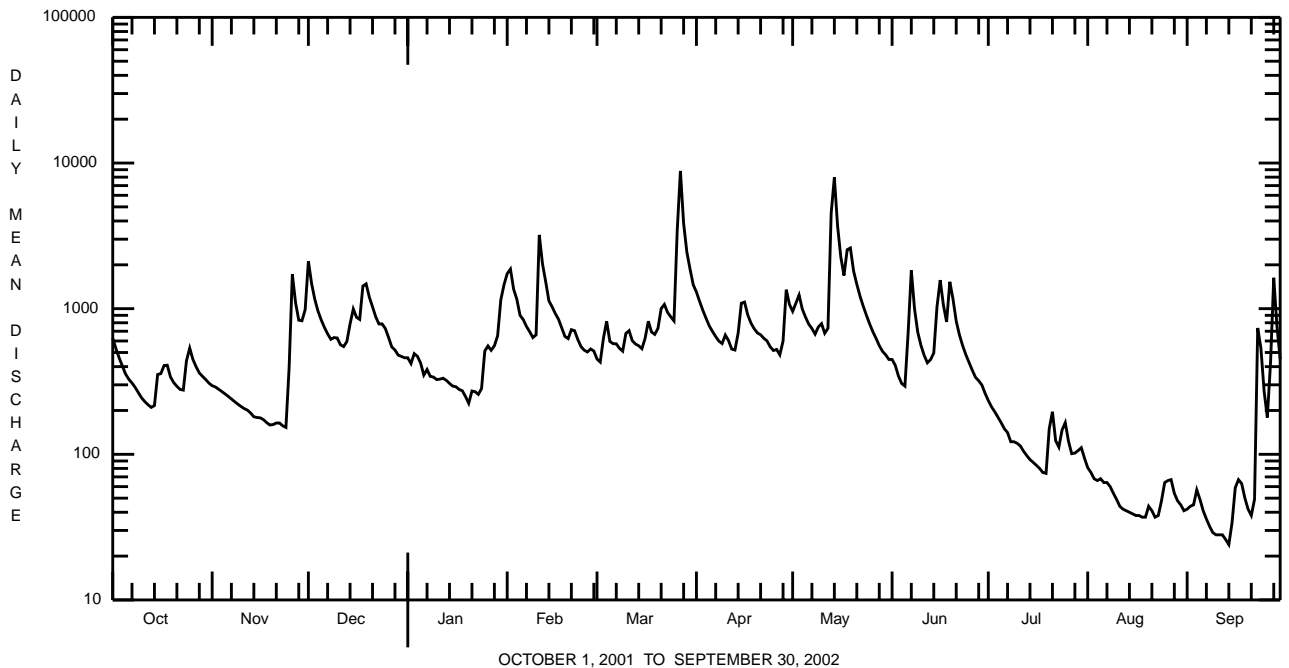
e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01552000 LOYALSOCK CREEK AT LOYALSOCKVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1926 - 2002	
ANNUAL TOTAL	202461		229022		759	
ANNUAL MEAN	555		628		1312	
HIGHEST ANNUAL MEAN					1978	
LOWEST ANNUAL MEAN					1965	
HIGHEST DAILY MEAN	8710	Sep 25	8830	Mar 27	45000	Jun 23 1972
LOWEST DAILY MEAN	42	Aug 16	24	Sep 14	11	Sep 25,26 1964
ANNUAL SEVEN-DAY MINIMUM	49	Aug 10	28	Sep 8	12	Sep 20 1964
MAXIMUM PEAK FLOW			a14700	Mar 26	a55800	Jan 19 1996
MAXIMUM PEAK STAGE			9.76	Mar 26	b17.93	Jan 19 1996
INSTANTANEOUS LOW FLOW					11	Sep 25,26 1964c
ANNUAL RUNOFF (CFSM)	1.28		1.44		1.74	
ANNUAL RUNOFF (INCHES)	17.31		19.59		23.71	
10 PERCENT EXCEEDS	1200		1180		1680	
50 PERCENT EXCEEDS	296		478		400	
90 PERCENT EXCEEDS	122		52		68	

- a From rating curve extended above 11,000 ft³/s on basis of slope-area measurement of peak flow.
- b From floodmark in gage.
- c Also Nov. 24, 1964.



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01552000 LOYALSOCK CREEK AT LOYALSOCKVILLE, PA--Continued
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WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 306-334.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	AGENCY ANA-LYZING SAMPLE (CODE NUMBER)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES (82398)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (µS/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS AS CACO3 (00900)	CALCIUM DIS-SOLVED AS CA (00915)	CALCIUM TOTAL RECOV-ERABLE AS CA (00916)	MAGNE-SIUM, DIS-SOLVED AS MG (00925)	MAGNE-SIUM, TOTAL RECOV-ERABLE AS MG (00927)
APR 2002 08...	1330	9813	601	30	12.4	7.7	53	6.8	23	6.94	7.1	1.18	1.2
JUN 03...	1045	9813	346	30	10.5	7.8	65	17.8	22	7.01	6.9	1.15	1.1
AUG 08...	1500	9813	59	30	10.0	8.7	66	22.8	29	9.46	9.3	1.44	1.4

Date	ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508)	ANC WATER UNFLTRD FET LAB (MG/L AS CAC03) (00417)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-ORPHO TOTAL (MG/L AS P) (70507)	PHOS-ORPHO TOTAL (MG/L AS P) (00665)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COPPER, DIS-SOLVED (µG/L AS CU) (01040)
APR 2002 08...	.0	11	9.2	22	<2	<.020	.36	<.040	.46	.01	<.010	<.2	<4
JUN 03...	.0	15	8.8	58	6	<.020	.18	<.040	.30	.01	<.010	4.1	<4
AUG 08...	.0	20	8.8	36	4	<.020	.21	<.040	.28	<.01	<.010	1.7	<4

Date	COPPER, TOTAL RECOV-ERABLE (µG/L AS CU) (01042)	IRON, DIS-SOLVED (µG/L AS FE) (01046)	IRON, TOTAL RECOV-ERABLE (µG/L AS FE) (01045)	LEAD, DIS-SOLVED (µG/L AS PB) (01049)	LEAD, TOTAL RECOV-ERABLE (µG/L AS PB) (01051)	NICKEL, DIS-SOLVED (µG/L AS NI) (01065)	NICKEL, TOTAL RECOV-ERABLE (µG/L AS NI) (01067)	ZINC, DIS-SOLVED (µG/L AS ZN) (01090)	ZINC, TOTAL RECOV-ERABLE (µG/L AS ZN) (01092)
APR 2002 08...	<4	<20	30	<1.0	<1.0	<4.0	<4.0	<5.0	<5.0
JUN 03...	<4	<20	20	<1.0	<1.0	<4.0	<4.0	<5.0	<5.0
AUG 08...	<4	<20	20	<1.0	<1.0	<4.0	<4.0	<5.0	<5.0