



2004 Water Year

WEST BRANCH SUSQUEHANNA RIVER BASIN

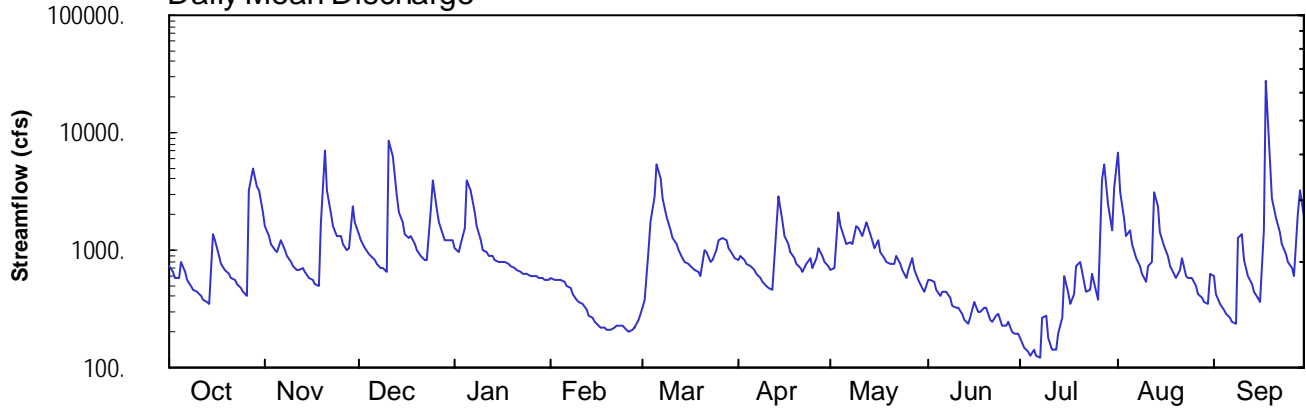
01552000 Loyalsock Creek at Loyalsockville, PA

Latitude: 41° 19' 30"
Lycoming County

Longitude: 076° 54' 46"
Datum: 586.33 feet

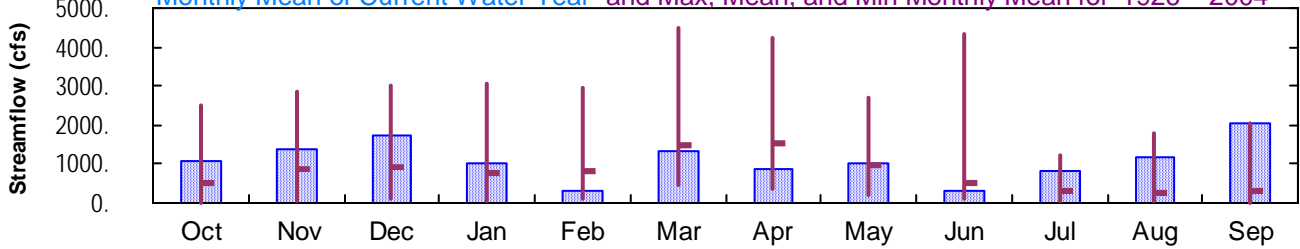
Hydrologic Unit Code: 02050206
Drainage Area: 435. mi²

Daily Mean Discharge

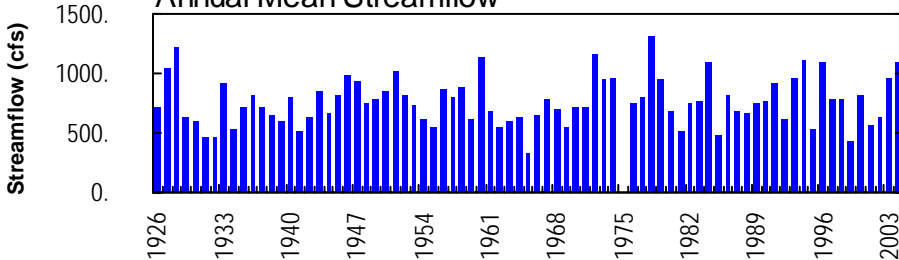


Monthly Statistics

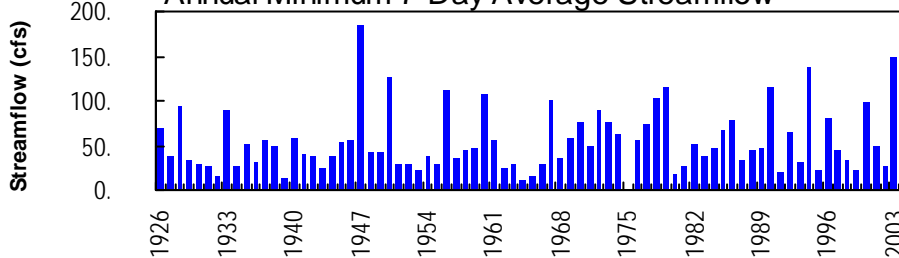
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1926 – 2004



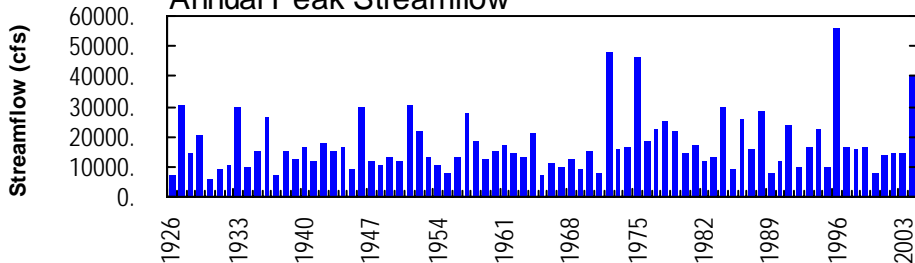
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



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). WDR PA-02-2: 1926-95(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)
Oct. 27	2145	8,350	7.89	July 27	2115	11,300	8.82
Nov. 20	0400	9,440	8.24	Aug. 1	0000	11,600	8.89
Dec. 11	1615	17,000	10.37	Sept. 18	1130	*40,400	*15.24

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	722	1620	1390	1040	e570	317	833	673	563	176	6750	601
2	643	1320	1200	978	e560	375	894	704	565	151	3140	425
3	574	1150	1040	1130	e560	1010	807	2060	526	137	1850	353
4	588	1000	909	1520	e550	1740	768	1620	456	127	1320	314
5	782	968	874	3920	e540	2900	731	1270	405	142	1470	283
6	652	1200	833	3210	e490	5360	665	1140	434	126	1120	265
7	554	1000	767	2090	e480	4090	618	1190	444	122	868	245
8	500	875	e710	1580	e420	2760	581	1120	388	262	732	236
9	464	778	692	e1200	e380	1950	543	1590	332	274	623	1250
10	433	720	647	e1000	e360	1510	500	1570	318	176	532	1390
11	408	687	8680	e950	e350	1260	475	1300	316	143	746	815
12	383	681	6320	e900	e310	1140	452	1750	291	140	786	607
13	359	703	2960	e880	e280	984	820	1550	256	192	3160	509
14	343	653	2060	e820	e270	845	2820	1200	240	267	2390	440
15	1380	587	1700	e780	e250	806	1780	1040	262	613	1420	390
16	1220	547	1360	e780	e230	764	1320	1190	358	434	1070	358
17	875	517	1260	e780	e220	733	1110	969	293	342	883	1480
18	749	494	1300	e770	e220	689	971	857	302	423	730	28100
19	683	1640	1110	e720	e210	643	868	806	318	726	626	5730
20	630	6990	988	e690	e210	598	772	755	322	804	577	2760
21	584	3210	877	e670	e220	992	707	756	255	532	684	1860
22	550	2070	816	e640	e230	965	663	877	249	447	840	1410
23	515	1570	810	e630	e230	798	751	773	271	456	602	1130
24	477	1320	2240	e620	e230	831	844	671	290	619	572	935
25	439	1320	3930	e600	e210	1000	714	585	230	445	585	804
26	415	1130	2290	e600	e200	1210	861	665	230	371	486	702
27	3170	1000	1700	e600	e210	1250	1030	853	242	3850	430	607
28	4930	1030	1380	e590	e220	1210	885	685	204	5360	389	1980
29	3530	2360	1200	e580	e260	1050	796	559	193	2490	368	3230
30	3220	1700	1230	e560	---	926	722	473	194	1500	352	1910
31	2100	---	1230	e560	---	853	---	449	---	3350	635	---
TOTAL	32872	40840	54503	32388	9470	41559	26301	31700	9747	25197	36736	61119
MEAN	1060	1361	1758	1045	327	1341	877	1023	325	813	1185	2037
MAX	4930	6990	8680	3920	570	5360	2820	2060	565	5360	6750	28100
MIN	343	494	647	560	200	317	452	449	193	122	352	236
CFSM	2.44	3.13	4.04	2.40	0.75	3.08	2.02	2.35	0.75	1.87	2.72	4.68
IN.	2.81	3.49	4.66	2.77	0.81	3.55	2.25	2.71	0.83	2.15	3.14	5.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2004, BY WATER YEAR (WY)

MEAN	491	848	903	776	814	1476	1548	953	522	283	280	306
MAX	2512	2856	3033	3070	2961	4490	4236	2694	4327	1206	1797	2037
(WY)	1991	1951	1974	1996	1981	1936	1993	1946	1972	1928	1994	2004
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 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1926 - 2004	
ANNUAL TOTAL	379215		402432			
ANNUAL MEAN	1039		1100		766	
HIGHEST ANNUAL MEAN					1312	1978
LOWEST ANNUAL MEAN					332	1965
HIGHEST DAILY MEAN	9580	Mar 21	28100	Sep 18	45000	Jun 23 1972
LOWEST DAILY MEAN	163	Aug 29	122	Jul 7	11	Sep 25 1964
ANNUAL SEVEN-DAY MINIMUM	179	Aug 26	140	Jul 1	12	Sep 20 1964
MAXIMUM PEAK FLOW			a40400	Sep 18	a55800	Jan 19 1996
MAXIMUM PEAK STAGE			15.24	Sep 18	b17.93	Jan 19 1996
INSTANTANEOUS LOW FLOW					11	Sep 25,26 1964c
ANNUAL RUNOFF (CFSM)	2.39		2.53		1.76	
ANNUAL RUNOFF (INCHES)	32.43		34.41		23.92	
10 PERCENT EXCEEDS	2080		2060		1690	
50 PERCENT EXCEEDS	660		724		410	
90 PERCENT EXCEEDS	280		256		69	

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.

WEST BRANCH SUSQUEHANNA RIVER BASIN

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

WATER-QUALITY RECORDS

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

REMARKS.--Some values for "dissolved" parameters exceed values for the corresponding "total" parameter. These results are within the limits of analytical precision and methods.

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 2003 TO SEPTEMBER 2004

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfltrd lab, µS/cm 25 degC (90095)	Specif. conductance, wat unfltrd lab, µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, unfltrd, mg/L (00915)	Calcium water, unfltrd recoverable, mg/L (00916)
OCT 2003	02...	1028	9813	646	11.3	7.5	6.7	58	56	11.6	23	6.9	7.1
DEC 04...	1345	1028	9813	886	13.9	7.3	7.1	54	50	1.4	19	6.1	6.0
APR 2004	05...	1028	9813	735	13.3	7.5	7.2	58	54	4.3	20	5.9	6.1
JUN 01...	1315	1028	9813	579	10.8	8.0	7.4	61	57	16.7	22	7.1	6.9
AUG 04...	1230	1028	9813	1300	9.8	7.3	6.8	56	54	20.1	21	6.9	6.8

Date	Magnesium, water, unfltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	ANC, wat unfltrd fixed end pt, lab, mg/L as CaCO3 (00417)	Acidity, water, unfltrd heated, mg/L as CaCO3 (70508)	Sulfate, water, unfltrd, mg/L (00945)	Residue on evap. at 105degC, wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia, water, unfltrd, mg/L as N (00610)	Nitrate, water, unfltrd, mg/L as N (00620)	Nitrite, water, unfltrd, mg/L as N (00615)	Orthophosphate, water, unfltrd, mg/L as P (70507)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, water, unfltrd, mg/L (00600)
OCT 2003	1.1	1.2	14	.00	7.7	40	4	<.020	.16	<.040	<.01	<.010	.30
DEC 04...	1.1	1.1	11	.00	8.4	42	<2	<.020	.33	<.040	<.01	<.010	.61
APR 2004	1.0	1.0	11	.80	8.2	136	<2	<.020	.38	<.040	<.01	<.010	.40
JUN 01...	1.1	1.1	15	.80	8.0	--	<2	<.020	.25	<.040	<.01	.010	.46
AUG 04...	1.1	1.0	13	2.6	7.3	32	<2	.050	.20	<.040	<.01	<.010	.32

Date	BOD, water, unfltrd 5 day, 20 degC, mg/L (00310)	Aluminum, water, unfltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Copper, water, unfltrd, µg/L (01040)	Copper, water, unfltrd recoverable, µg/L (01042)	Iron, water, unfltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Lead, water, unfltrd, µg/L (01049)	Lead, water, unfltrd recoverable, µg/L (01051)	Manganese, water, unfltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, unfltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)
OCT 2003	.4	30	40	<4	<4	20	50	<1.0	<1.0	4	6	<4.0	<4.0
DEC 04...	1.4	20	50	<4	<4	<20	20	<1.0	<1.0	3	5	<4.0	<4.0
APR 2004	.9	20	30	<4	<4	<20	30	<1.0	<1.0	2	4	<4.0	<4.0
JUN 01...	.9	20	40	<4	<4	30	40	<1.0	<1.0	6	10	<4.0	<4.0
AUG 04...	1.4	40	70	<4	<4	40	100	<1.0	<1.0	8	20	<4.0	<4.0

Date	Zinc, water, unfltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
OCT 2003	<5.0	<5.0
DEC 04...	<5.0	<5.0
APR 2004	<5.0	<5.0
JUN 01...	<5.0	<5.0
AUG 04...	<5.0	<5.0

WEST BRANCH SUSQUEHANNA RIVER BASIN

01552000 LOYALSOCK CREEK AT LOYALSOCKVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	10/02/03
Benthic Macroinvertebrate	Count
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
<i>Prostoma</i>	1
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
<i>Ferrissia</i>	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	29
Tubificida	
Naididae	1
Arthropoda	
Decapoda	
Cambaridae (CRAYFISH)	
<i>Orconectes</i>	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Baetis</i>	4
<i>Plauditus</i>	8
Caenidae	
<i>Caenis</i>	1
Ephemerellidae	
<i>Ephemerella</i>	1
<i>Serratella</i>	1
Heptageniidae	
<i>Leucrocuta</i>	5
<i>Stenonema</i>	43
Isonychiidae	
<i>Isonychia</i>	21
Leptophlebiidae	
<i>Paraleptophlebia</i>	1
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Coenagrionidae	1
Gomphidae	
<i>Lanthus</i>	2
Plecoptera (STONEFLIES)	
Perlidae	
<i>Acroneuria</i>	4
Megaloptera	
Sialidae (ALDERFLIES)	
<i>Sialis</i>	1

WEST BRANCH SUSQUEHANNA RIVER BASIN

01552000 LOYALSOCK CREEK AT LOYALSOCKVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	10/02/03
Benthic Macroinvertebrate	Count
Trichoptera (CADDISFLIES)	
Apataniidae	
<i>Apatania</i>	1
Hydropsychidae	
<i>Cheumatopsyche</i>	3
<i>Hydropsyche</i>	3
Lepidostomatidae	
<i>Lepidostoma</i>	2
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Stenelmis</i>	1
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	5
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	
Tipulidae (CRANE FLIES)	9
<i>Antocha</i>	3
Total Organisms	153
Total Taxa	26