



2004 Water Year

WEST BRANCH SUSQUEHANNA RIVER BASIN

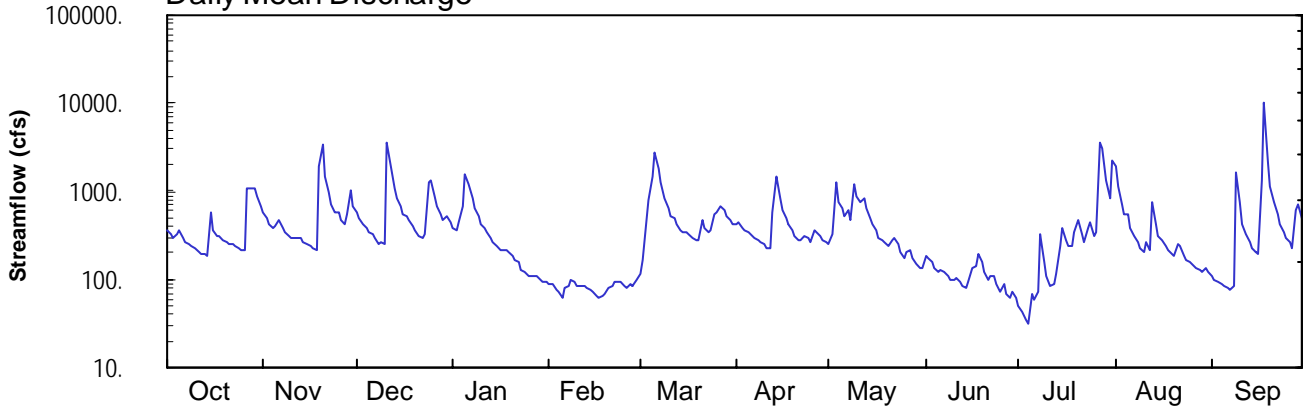
01550000 Lycoming Creek near Trout Run, PA

Latitude: 41° 25 ' 06"
Lycoming County

Longitude: 077° 01 ' 59"
Datum: 693.95 feet

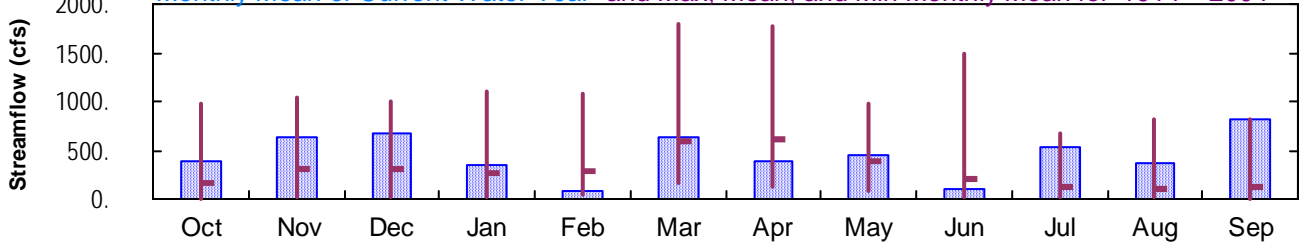
Hydrologic Unit Code: 02050206
Drainage Area: 173. mi²

Daily Mean Discharge

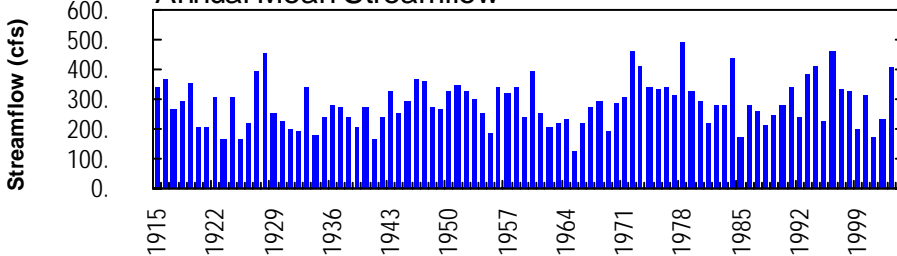


Monthly Statistics

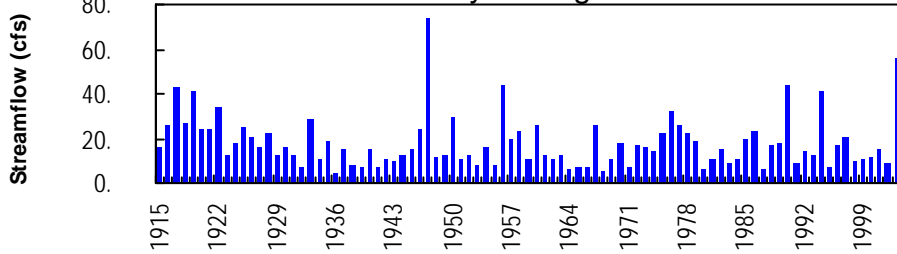
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1914 – 2004



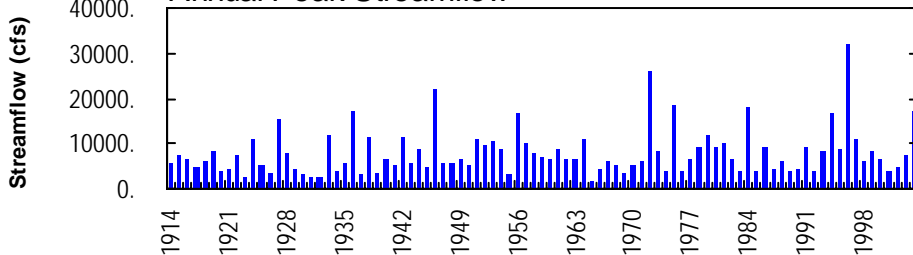
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



WEST BRANCH SUSQUEHANNA RIVER BASIN

**01550000 LYCOMING CREEK NEAR TROUT RUN, PA
(Pennsylvania Water-Quality Network Station)**

LOCATION.--Lat 41°25'06", long 77°01'59", Lycoming County, Hydrologic Unit 02050206, on right bank 150 ft upstream from bridge on Township Route 840, 0.5 mi downstream from Grays Run, and 2.6 mi northeast of Trout Run.

DRAINAGE AREA.--173 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1913 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 921: 1933, 1934(M), 1935-39. WSP 1302: 1914-16, 1922(M), 1932-25, 1926(M), 1927-28, 1930, 1931(M). WSP 1502: 1920-21(M), 1932(M), 1933.

GAGE.--Water-stage recorder. Datum of gage is 693.95 ft above National Geodetic Vertical Datum of 1929. Prior to June 1, 1939, nonrecording gage at site 150 ft downstream at same datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. 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 2,900 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Nov. 19	2315	6,360	9.69	July 27	1745	7,820	10.68
Dec. 11	1245	6,540	9.82	July 31	1730	4,230	8.10
Dec. 24	1745	3,160	7.16	Sept. 9	0845	3,330	7.32
Mar. 6	0815	3,210	7.21	Sept. 18	0645	*17,100	*15.78

**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	362	565	588	387	e90	118	420	246	183	51	1900	107
2	325	486	506	370	e89	169	439	319	171	42	1130	100
3	296	424	426	439	e74	477	387	1260	159	35	718	93
4	331	382	373	691	e72	790	368	769	133	31	540	89
5	368	394	342	1520	e63	1450	337	627	123	69	550	84
6	300	463	327	1190	e82	2830	308	523	131	60	384	82
7	272	378	300	824	e86	1840	293	599	121	73	317	78
8	251	342	256	650	e97	1280	278	460	109	331	270	86
9	235	315	261	510	e92	854	266	1190	99	160	232	1680
10	221	301	245	417	e86	648	246	864	98	107	204	748
11	209	291	3660	e380	e86	536	233	767	105	83	265	431
12	198	290	1960	e340	e86	487	224	854	93	89	211	324
13	191	290	1100	e300	e80	415	575	628	83	118	744	272
14	184	270	817	e260	e76	365	1470	497	82	239	423	231
15	589	253	665	e240	e71	353	830	425	95	391	316	207
16	364	240	539	e220	e66	336	611	357	132	284	273	191
17	316	231	509	e220	e60	318	500	300	141	234	244	1340
18	303	221	472	e210	e66	298	416	281	195	239	216	10100
19	286	1940	401	206	e69	285	361	260	159	340	193	2150
20	270	3380	354	180	81	274	317	233	121	466	182	1130
21	257	1500	312	165	86	465	285	273	100	320	249	754
22	249	960	294	159	93	386	277	287	108	266	240	551
23	245	715	329	e130	92	340	310	247	110	386	183	428
24	232	593	1280	e120	92	360	299	206	87	439	166	348
25	220	587	1340	e110	e85	537	266	176	73	308	155	299
26	212	471	870	e110	e82	583	362	206	89	336	144	263
27	1110	416	667	e110	88	684	335	215	70	3500	135	225
28	1100	547	547	e110	e85	622	305	171	60	3080	129	622
29	1050	1000	472	e100	97	526	279	149	72	1360	122	717
30	884	678	513	e96	---	461	260	134	62	838	132	485
31	681	---	453	e96	---	422	---	137	---	2250	119	---
TOTAL	12111	18923	21178	10860	2372	19509	11857	13660	3364	16525	11086	24215
MEAN	391	631	683	350	81.8	629	395	441	112	533	358	807
MAX	1110	3380	3660	1520	97	2830	1470	1260	195	3500	1900	10100
MIN	184	221	245	96	60	118	224	134	60	31	119	78
CFSM	2.26	3.65	3.95	2.02	0.47	3.64	2.28	2.55	0.65	3.08	2.07	4.67
IN.	2.60	4.07	4.55	2.34	0.51	4.19	2.55	2.94	0.72	3.55	2.38	5.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2004, BY WATER YEAR (WY)

MEAN	162	301	312	272	292	592	621	385	206	117	93.8	115
MAX	983	1044	1003	1095	1082	1788	1783	979	1488	674	812	807
(WY)	1991	1927	1997	1996	1981	1936	1993	1919	1972	1915	1994	2004
MIN	7.65	13.4	26.4	20.5	37.8	160	132	74.8	18.0	16.0	10.3	6.25
(WY)	1965	1965	1965	1931	1931	1969	1946	1941	1991	1964	1964	1964

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01550000 LYCOMING CREEK NEAR TROUT RUN, PA--Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1914 - 2004	
ANNUAL TOTAL	170529		165660			
ANNUAL MEAN	467		453		289	
HIGHEST ANNUAL MEAN					491	
LOWEST ANNUAL MEAN					124	
HIGHEST DAILY MEAN	4500	Mar 21	10100	Sep 18	15000	Jan 19 1996
LOWEST DAILY MEAN	75	Feb 16	31	Jul 4	4.0	Sep 19-24 1936 ^a
ANNUAL SEVEN-DAY MINIMUM	^b 91	Feb 15	50	Jun 30	4.1	Sep 18 1936
MAXIMUM PEAK FLOW			^c 17100	Sep 18	^c 32000	Jan 19 1996
MAXIMUM PEAK STAGE			15.78	Sep 18	^d 22.68	Jan 19 1996
INSTANTANEOUS LOW FLOW					3.2	Sep 27 1936
ANNUAL RUNOFF (CFSM)	2.70		2.62		1.67	
ANNUAL RUNOFF (INCHES)	36.67		35.62		22.67	
10 PERCENT EXCEEDS	895		857		665	
50 PERCENT EXCEEDS	301		290		142	
90 PERCENT EXCEEDS	123		86		25	

^a Also Sept. 27, 28, 1936 and Sept. 1, 1968.

^b Computed using estimated daily discharges.

^c From rating curve extended above 5,300 ft³/s on basis of slope-area measurement of peak flow.

^d From floodmark in gage.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01550000 LYCOMING CREEK NEAR TROUT RUN, 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)	Pressure, osmotic water, unfltrd mosm/kg (82550)	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)
OCT 2003													
02...	1330	1028	9813	320	3.0	11.0	7.2	6.7	63	61	11.0	23	6.8
NOV													
05...	1000	1028	9813	357	5.0	10.6	7.0	6.6	62	54	11.8	21	5.8
DEC													
04...	1145	1028	9813	366	<1.0	13.2	7.5	7.0	58	55	1.8	21	5.9
JAN 2004													
06...	1145	1028	9813	1170	<1.0	13.3	7.0	6.9	52	52	3.1	21	5.7
FEB													
02...	0930	1028	9813	E89	7.0	14.4	7.8	6.9	64	59	.1	22	6.4
MAR													
10...	0945	1028	9813	653	6.0	13.9	7.6	6.8	54	56	2.7	17	4.8
APR													
05...	0915	1028	9813	343	5.0	13.6	7.7	7.2	60	55	2.4	20	5.8
MAY													
11...	1240	1028	9813	802	3.0	10.8	6.8	7.0	57	53	14.1	19	5.6
JUN													
02...	1200	1028	9813	177	2.0	10.1	7.3	7.0	66	64	14.2	24	6.7
JUL													
13...	1230	1028	9813	119	2.0	9.7	6.8	6.6	65	61	16.9	22	6.2
AUG													
05...	1315	1028	9813	555	<1.0	9.7	6.8	6.6	57	56	16.4	20	6.2
SEP													
21...	1130	1028	9813	762	<1.0	10.5	6.7	6.7	55	53	12.5	20	5.7
Date	Calcium water unfltrd recover-able, mg/L (00916)	Magnesium, water, unfltrd, mg/L (00925)	Magnesium, water, unfltrd recover-able, mg/L (00927)	ANC, wat unfltrd end pt, lab, mg/L as CaCO3 (00417)	Acidity water, unfltrd heated, mg/L as CaCO3 (70508)	Chloride, water, unfltrd, mg/L (00940)	Fluoride, water, unfltrd, mg/L (00951)	Sulfate water, unfltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus-pended, 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)
OCT 2003													
02...	6.6	1.5	1.5	13	.00	2.5	<.2	10.1	34	4	<.020	.37	<.040
NOV													
05...	6.1	1.3	1.4	12	.00	2.2	<.2	9.7	40	2	<.020	.38	<.040
DEC													
04...	6.0	1.4	1.4	10	.00	2.0	<.2	10.1	44	<2	<.020	.52	<.040
JAN 2004													
06...	6.0	1.3	1.4	8	.00	2.4	<.2	9.5	40	4	<.020	.59	<.040
FEB													
02...	6.5	1.4	1.5	11	.00	2.6	<.2	11.1	118	<2	<.020	.66	<.040
MAR													
10...	5.1	1.1	1.1	8	4.4	2.2	<.2	9.0	54	<2	<.020	.83	<.040
APR													
05...	5.8	1.3	1.3	10	1.0	2.8	<.2	9.6	76	<2	<.020	.61	<.040
MAY													
11...	5.7	1.2	1.3	13	6.2	2.3	<.2	9.2	52	2	<.020	.45	<.040
JUN													
02...	6.9	1.5	1.5	15	4.6	2.8	<.2	9.5	16	38	<.020	.42	<.040
JUL													
13...	6.6	1.4	1.4	15	--	2.6	<.2	10.0	34	<2	<.020	.40	<.040
AUG													
05...	6.1	1.3	1.3	16	3.0	2.1	<.2	8.3	36	4	.040	.36	<.040
SEP													
21...	5.7	1.3	1.4	10	13	2.0	<.2	9.8	56	4	<.020	.45	<.040

WEST BRANCH SUSQUEHANNA RIVER BASIN

01550000 LYCOMING CREEK NEAR TROUT RUN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Ortho-phosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coliform, M-FC col/100 mL (31616)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover-able, µg/L (01105)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover-able, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover-able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover-able, µg/L (01051)
OCT 2003 02...	<.01	<.010	.45	.4	30	40	80	<4	<4	<20	30	<1.0	<1.0
NOV 05...	.01	.011	.40	1.3	40	40	80	<4	<4	20	30	<1.0	<1.0
DEC 04...	.01	<.010	.66	1.5	<20	50	100	<4	<4	<20	30	<1.0	<1.0
JAN 2004 06...	.01	.010	.74	1.3	20	60	130	<4	<4	40	100	<1.0	<1.0
FEB 02...	<.01	<.010	.70	.8	<20	10	50	<4	<4	<20	<20	<1.0	<1.0
MAR 10...	<.01	.015	.94	1.3	<20	60	140	<4	<4	<20	290	<1.0	<1.0
APR 05...	.01	<.010	.67	.9	<10	50	80	<4	<4	<20	30	<1.0	<1.0
MAY 11...	<.01	.010	.51	1.0	20	40	80	<4	<4	<20	100	<1.0	<1.0
JUN 02...	<.01	.015	.68	.4	10	30	40	<4	<4	<20	40	<1.0	<1.0
JUL 13...	<.01	<.010	.60	.6	80	20	40	<4	<4	<20	30	<1.0	<1.0
AUG 05...	<.01	.013	.38	.6	100	40	100	<4	<4	30	90	<1.0	<1.0
SEP 21...	<.01	.011	.59	.4	80	40	190	<4	<4	<20	330	<1.0	<1.0

Date	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover-able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover-able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover-able, µg/L (01092)	Phenolic compounds, water, unfltrd µg/L (32730)
OCT 2003 02...	20	30	<4.0	<4.0	6	7	<5
NOV 05...	20	20	<4.0	<4.0	7	7	<5
DEC 04...	20	30	<4.0	<4.0	10	9	<5
JAN 2004 06...	30	30	<4.0	<4.0	7	9	<5
FEB 02...	20	20	<4.0	<4.0	8	8	<5
MAR 10...	30	40	<4.0	<4.0	10	10	5
APR 05...	20	20	<4.0	<4.0	9	8	<5
MAY 11...	20	30	<4.0	<4.0	6	8	<5
JUN 02...	10	10	<4.0	<4.0	<5	<5	<5
JUL 13...	5	9	<4.0	<4.0	<5	<5	<5
AUG 05...	30	80	<4.0	<4.0	5	10	<5
SEP 21...	40	50	<4.0	<4.0	8	9	<5

WEST BRANCH SUSQUEHANNA RIVER BASIN

01550000 LYCOMING CREEK NEAR TROUT RUN, 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 200 animal (approximate) subsamples.

Date	12/11/02
Benthic Macroinvertebrate	Count
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
<i>Ferrissia</i>	5
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	1
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Acentrella</i>	2
Ephemerellidae	
<i>Drunella</i>	7
<i>Ephemerella</i>	17
<i>Serratella</i>	6
Heptageniidae	
<i>Epeorus</i>	2
<i>Leucrocuta</i>	9
<i>Rhithrogena</i>	2
<i>Stenonema</i>	7
Isonychiidae	
<i>Isonychia</i>	4
Leptophlebiidae	
<i>Paraleptophlebia</i>	8
Plecoptera (STONEFLIES)	
Perlidae	
<i>Acroneuria</i>	2
Taeniopterygidae	
<i>Taenionema</i>	4
<i>Taeniopteryx</i>	2
Trichoptera (CADDISFLIES)	
Apataniidae	
<i>Apatania</i>	1
Brachycentridae	
<i>Brachycentrus</i>	1
Helicopsychidae	
<i>Helicopsyche</i>	1
Hydropsychidae	
<i>Cheumatopsyche</i>	26
<i>Hydropsyche</i>	17
Lepidostomatidae	
<i>Lepidostoma</i>	1
Leptoceridae	
<i>Setodes</i>	4
Philopotamidae	
<i>Chimarra</i>	2

WEST BRANCH SUSQUEHANNA RIVER BASIN

01550000 LYCOMING CREEK NEAR TROUT RUN, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	12/11/02
Benthic Macroinvertebrate	Count
Trichoptera (CADDISFLIES)	
Polycentropodidae	
<i>Polycentropus</i>	2
Rhyacophilidae	
<i>Rhyacophila</i>	10
Uenoidae	
<i>Neophylax</i>	8
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Optioservus</i>	19
<i>Stenelmis</i>	3
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	12
Diptera (TRUE FLIES)	
Ceratopogonidae (BITING MIDGES)	
<i>Probezzia</i>	1
Chironomidae (MIDGES)	
	16
Simuliidae (BLACK FLIES)	
<i>Prosimulium</i>	6
Total Organisms	208
Total Taxa	32