



2005 Water Year  
WEST BRANCH SUSQUEHANNA RIVER BASIN  
01549700 Pine Creek bl L Pine Creek near Waterville, PA

Latitude: 41° 16' 25"

Longitude: 077° 19' 28"

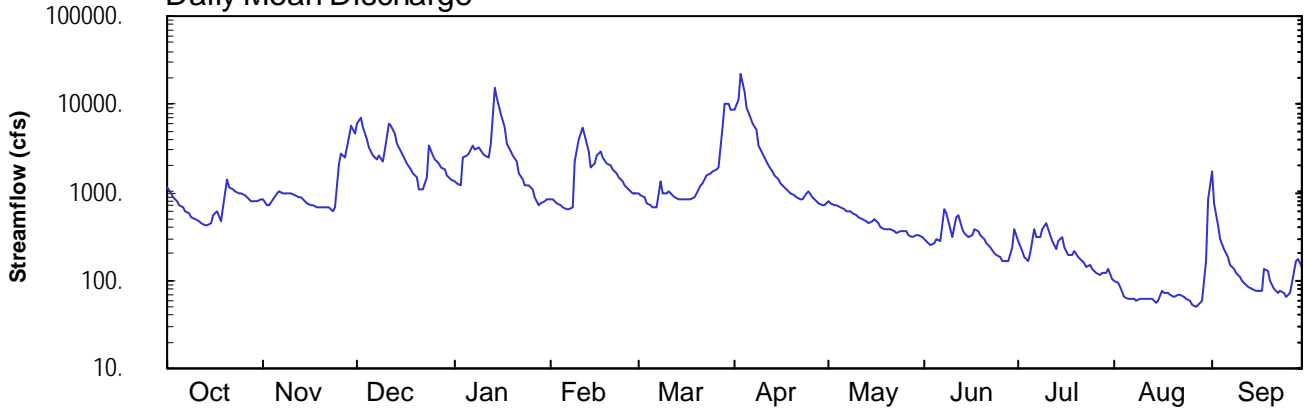
Hydrologic Unit Code: 02050205

Lycoming County

Datum: 570.62 feet

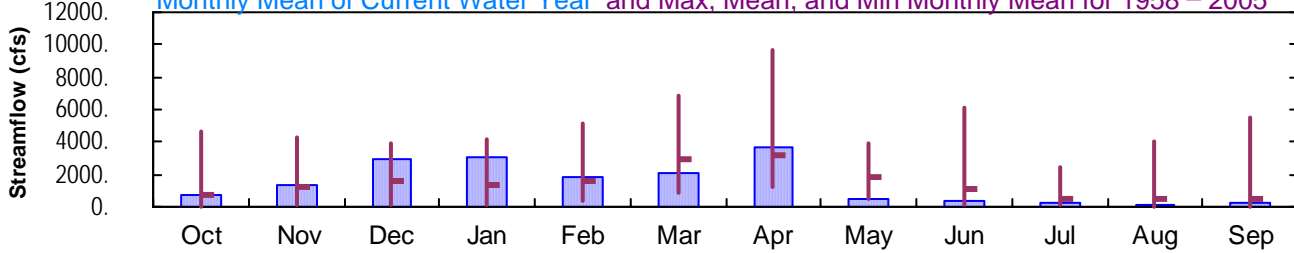
Drainage Area: 944. mi<sup>2</sup>

### Daily Mean Discharge

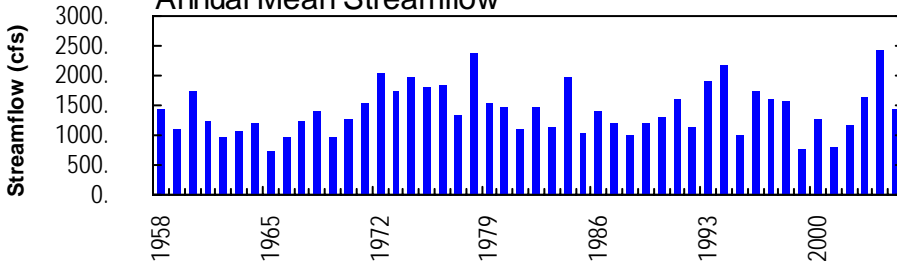


### Monthly Statistics

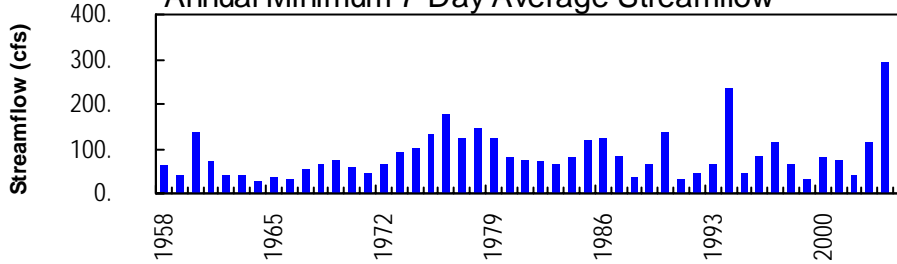
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1958 – 2005



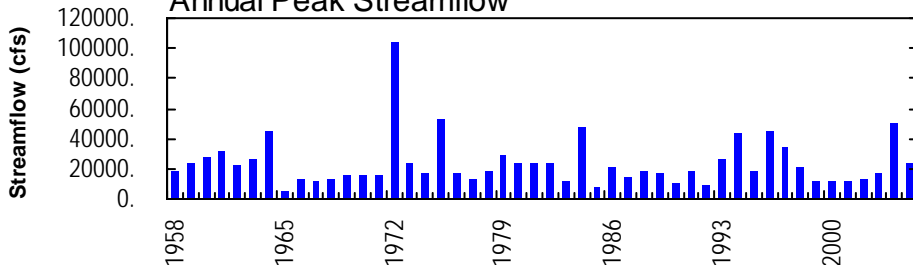
### Annual Mean Streamflow



### Annual Minimum 7-Day Average Streamflow



### Annual Peak Streamflow



## WEST BRANCH SUSQUEHANNA RIVER BASIN

01549700 PINE CREEK BELOW LITTLE PINE CREEK NEAR WATERVILLE, PA  
(Pennsylvania Water-Quality Network Station)

**LOCATION.**--Lat 41°16'25", long 77°19'28", Lycoming County, Hydrologic Unit 02050205, on left bank on State Highway 44, on abutment of abandoned bridge 0.9 mi downstream from Ramsey Run, 4.0 mi downstream from Little Pine Creek, 4.0 mi south of Waterville, and 9.2 mi upstream from mouth.

**DRAINAGE AREA.**--944 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--October 1957 to current year.

**REVISED RECORDS.**--WDR PA-72-1: 1964(P).

**GAGE.**--Water-stage recorder and crest-stage gage. Datum of gage is 570.62 ft above National Geodetic Vertical Datum of 1929. Prior to June 16, 1982, nonrecording gage at same site and datum.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Flood flows subject to regulation by Little Pine Dam 8.5 mi upstream, capacity 24,900 acre-ft. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 9,200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)	Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)
Jan. 14	1145	18,800	8.69	Apr. 3	0815	*23,600	9.59
Feb. 10	1300	Ice jam	*10.68				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1120	818	5910	1360	e820	981	8600	808	294	284	101	1740
2	982	731	7080	1250	e820	944	11100	768	262	215	96	762
3	896	724	5470	1210	e760	e860	21700	728	247	187	82	427
4	806	832	4070	2450	e730	e770	14000	705	265	165	64	297
5	729	961	3180	2610	e660	e720	9310	673	295	204	62	228
6	664	1040	2580	2780	e630	e690	7180	642	282	377	62	183
7	608	996	2320	3340	e630	e690	6080	622	635	315	62	153
8	567	984	2630	3100	e690	e1300	5090	597	581	318	59	133
9	531	993	2270	3220	e2200	e1000	3380	572	385	390	61	119
10	498	969	3010	2810	e3900	e950	2710	554	318	440	61	107
11	469	914	5900	2560	5510	e1000	2290	535	510	e320	61	98
12	449	899	5620	2440	4480	e940	1970	497	545	276	63	90
13	433	868	4660	3520	2960	e890	1750	468	383	222	60	84
14	425	799	3650	15000	1900	e840	1560	451	341	277	57	79
15	449	746	2870	12100	2070	e820	1390	474	305	316	59	77
16	562	723	2380	7990	2680	e820	1240	492	328	235	76	74
17	604	712	2090	5490	2910	822	1120	442	374	198	71	77
18	481	685	1830	e3500	2500	848	1040	412	367	194	72	134
19	675	670	1660	e2900	2140	886	970	388	330	213	70	129
20	1370	663	e1500	e2600	1970	993	908	387	299	187	66	97
21	1170	693	e1100	e2200	1840	1210	869	376	270	177	69	81
22	1070	661	e1100	e1600	1660	1250	823	364	244	161	69	74
23	1040	622	1450	e1400	1480	1550	815	353	205	144	67	75
24	989	690	3450	e1200	1310	1670	957	357	195	153	62	71
25	962	2140	e2600	e1200	1200	1700	1030	363	184	133	58	66
26	913	2800	e2400	e1100	1100	1820	888	357	169	124	54	74
27	848	2540	e2100	e890	e1000	1920	795	323	166	117	51	93
28	799	4090	e1900	e730	979	5310	743	309	169	120	56	167
29	773	5640	e1800	e760	---	10100	713	327	238	122	58	177
30	805	4560	1590	e790	---	9970	722	321	389	137	166	145
31	830	---	1420	e820	---	8610	---	310	---	103	840	---
TOTAL	23517	41163	91590	94920	51529	62874	111743	14975	9575	6824	2915	6111
MEAN	759	1372	2955	3062	1840	2028	3725	483	319	220	94.0	204
MAX	1370	5640	7080	15000	5510	10100	21700	808	635	440	840	1740
MIN	425	622	1100	730	630	690	713	309	166	103	51	66
CFSM	0.80	1.45	3.13	3.24	1.95	2.15	3.95	0.51	0.34	0.23	0.10	0.22
IN.	0.93	1.62	3.61	3.74	2.03	2.48	4.40	0.59	0.38	0.27	0.11	0.24

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2005, BY WATER YEAR (WY)

MEAN	680	1275	1536	1330	1643	2885	3205	1828	1125	539	441	547
MAX	4597	4337	3860	4114	5148	6840	9683	3919	6070	2423	4096	5547
(WY)	1991	1978	1974	1996	1981	1964	1993	1960	1972	1972	1994	2004
MIN	46.7	66.3	107	93.7	410	850	1171	446	153	73.4	51.7	30.4
(WY)	1964	1965	1961	1961	1987	1969	1988	1985	1991	1964	1966	1964

e Estimated.

## WEST BRANCH SUSQUEHANNA RIVER BASIN

## 01549700 PINE CREEK BELOW LITTLE PINE CREEK NEAR WATERVILLE, PA--Continued

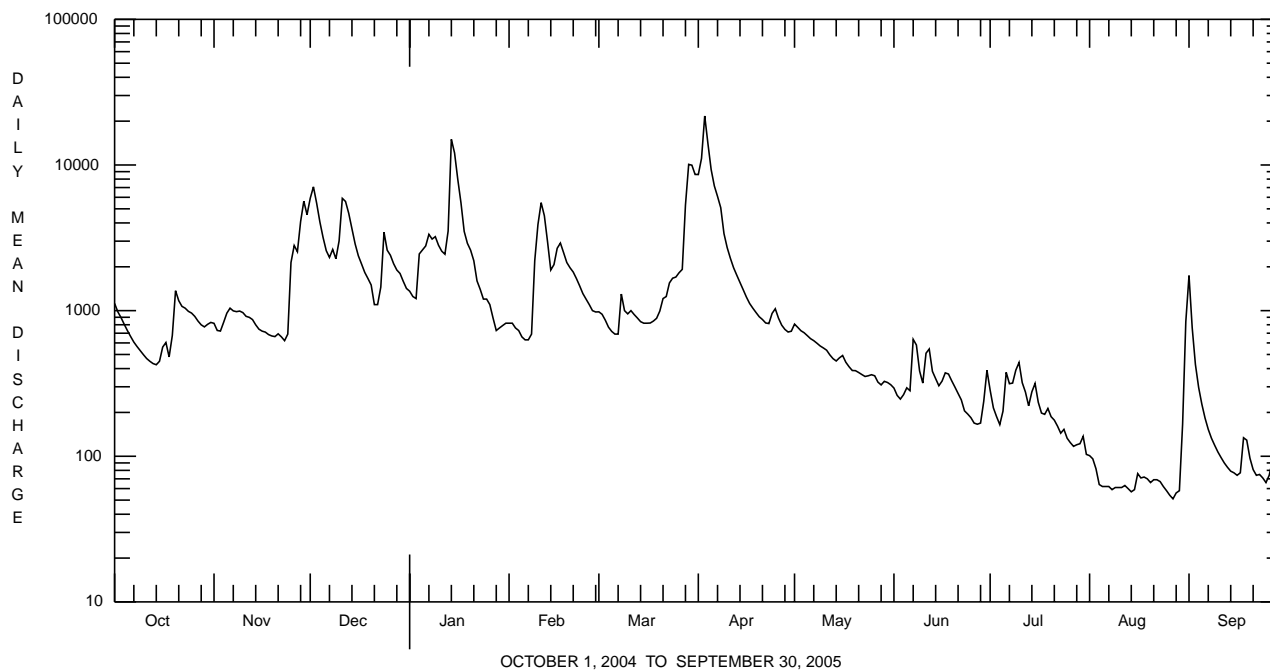
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1958 - 2005	
ANNUAL TOTAL	809945		517736			
ANNUAL MEAN	2213		1418		1417	
HIGHEST ANNUAL MEAN					2417	2004
LOWEST ANNUAL MEAN					739	1965
HIGHEST DAILY MEAN	39700	Sep 18	21700	Apr 3	75000	Jun 23 1972
LOWEST DAILY MEAN	252	Jul 4	51	Aug 27	23	Sep 5 1999
ANNUAL SEVEN-DAY MINIMUM	294	Jul 1	58	Aug 23	26	Sep 21 1964
MAXIMUM PEAK FLOW			ab23600	Apr 3	b104000	Jun 23 1972
MAXIMUM PEAK STAGE			c10.68	Feb 10	d22.76	Jun 23 1972
ANNUAL RUNOFF (CFSM)	2.34		1.50		1.50	
ANNUAL RUNOFF (INCHES)	31.92		20.40		20.39	
10 PERCENT EXCEEDS	4570		3200		3360	
50 PERCENT EXCEEDS	1330		730		691	
90 PERCENT EXCEEDS	566		82		112	

a Gage height 9.59 ft.

b From rating curve extended above 22,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow.

c Ice jam.

d From floodmark.



## WEST BRANCH SUSQUEHANNA RIVER BASIN

01549700 PINE CREEK BELOW LITTLE PINE CREEK NEAR WATERVILLE, 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 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfltrd lab, $\mu$ S/cm 25 degC (90095)	Specif. conductance, wat unfltrd lab, $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Calcium water unfltrd recoverable, mg/L (00916)	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, fltrd, 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 as N mg/L (00610)	Nitrate water, unfltrd as N mg/L (00620)	Nitrite water, unfltrd as N mg/L (00615)	Orthophosphate, water, unfltrd as P mg/L (70507)	Phosphorus, water, unfltrd mg/L (00665)
NOV 2004														
22...	1150	1028	9813	662	30	12.4	7.7	7.6	91	85	7.9	35	9.5	
JAN 2005														
24...	1245	1028	9813	E1200	30	16.1	7.3	7.3	84	87	.0	32	8.4	
MAR														
14...	1150	1028	9813	E840	30	15.7	7.5	6.9	83	72	1.1	29	8.2	
MAY														
18...	1130	1028	9813	417	30	11.0	7.7	7.7	92	93	15.6	34	9.5	
JUL														
20...	1200	1028	9813	182	30	8.8	8.0	7.9	124	132	27.1	49	14.1	
SEP														
28...	1145	1028	9813	177	30	10.2	8.3	7.8	149	156	17.1	57	16.1	

## WEST BRANCH SUSQUEHANNA RIVER BASIN

## 01549700 PINE CREEK BELOW LITTLE PINE CREEK NEAR WATERVILLE, PA--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Total nitrogen, water, unfltrd mg/L (00600)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	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)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover-able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)
NOV 2004 22...	.39	.8	10	20	<4	<4	<20	30	<1.0	<1.0	10	10	<4.0
JAN 2005 24...	.62	<.2	<10	80	<4	<4	80	110	<1.0	2.2	60	80	<4.0
MAR 14...	.62	2.1	30	60	<4	<4	<20	70	<1.0	<1.0	20	30	<4.0
MAY 18...	.14	.3	20	30	<4	<4	40	50	<1.0	<1.0	20	30	<4.0
JUL 20...	.20	.8	30	100	<4	<4	60	170	<1.0	<1.0	30	60	<4.0
SEP 28...	.24	.6	10	30	<4	<4	30	90	<1.0	<1.0	20	30	<4.0

Date	Nickel, water, unfltrd recover-able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover-able, µg/L (01092)
NOV 2004 22...	<4.0	<5.0	<5.0
JAN 2005 24...	<4.0	<5.0	27
MAR 14...	<4.0	<5.0	<5.0
MAY 18...	<4.0	<5.0	<5.0
JUL 20...	<4.0	8.4	14
SEP 28...	<4.0	<5.0	<5.0

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01549700 PINE CREEK BELOW LITTLE PINE CREEK NEAR WATERVILLE, PA--Continued

BIOLOGICAL DATA  
BENTHIC MACROINVERTEBRATES

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

Date	10/26/04
Benthic macroinvertebrate	Count
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
<i>Prostoma</i>	1
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Baetis</i>	1
Ephemerellidae	
<i>Ephemerella</i>	4
<i>Serratella</i>	9
Heptageniidae	
<i>Epeorus</i>	7
<i>Stenacron</i>	2
<i>Stenonema</i>	18
Isonychiidae	
<i>Isonychia</i>	16
Plecoptera (STONEFLIES)	
Leuctridae	
<i>Leuctra</i>	3
Perlidae	
<i>Acroneuria</i>	3
<i>Paragnetina</i>	1
Taeniopterygidae	
<i>Taenionema</i>	1
<i>Taeniopteryx</i>	8
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<i>Cheumatopsyche</i>	18
<i>Hydropsyche</i>	10
<i>Macrostemum</i>	1
Hydroptilidae	
<i>Leucotrichia</i>	1
Lepidostomatidae	
<i>Lepidostoma</i>	2
Psychomyiidae	
<i>Psychomyia</i>	1
Uenoidae	
<i>Neophylax</i>	5
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Optioservus</i>	5
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	5
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	
	9
Empididae (DANCE FLIES)	
<i>Hemerodromia</i>	1
Total Organisms	132
Total Taxa	24