



2004 Water Year

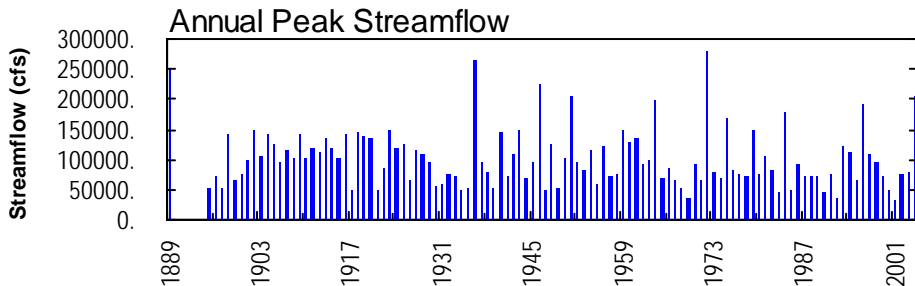
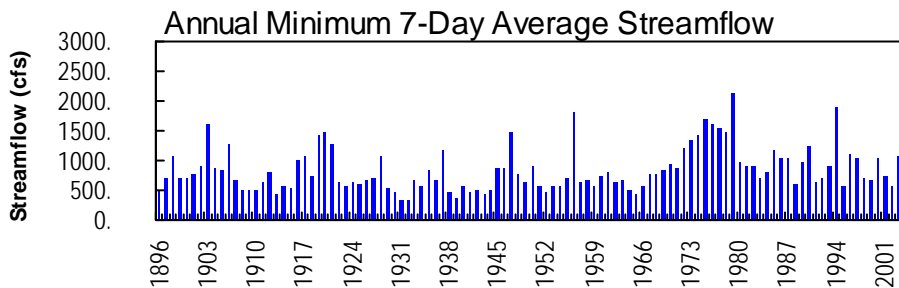
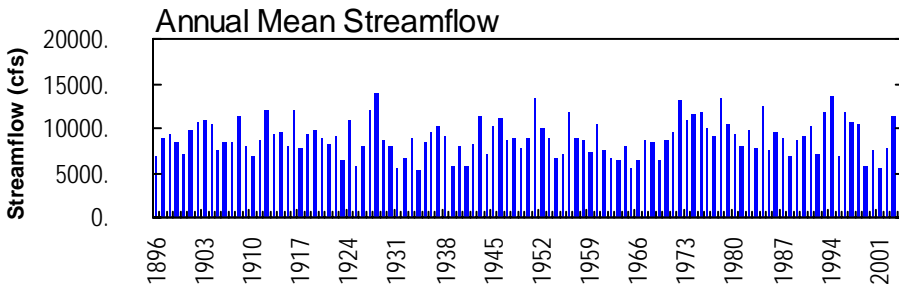
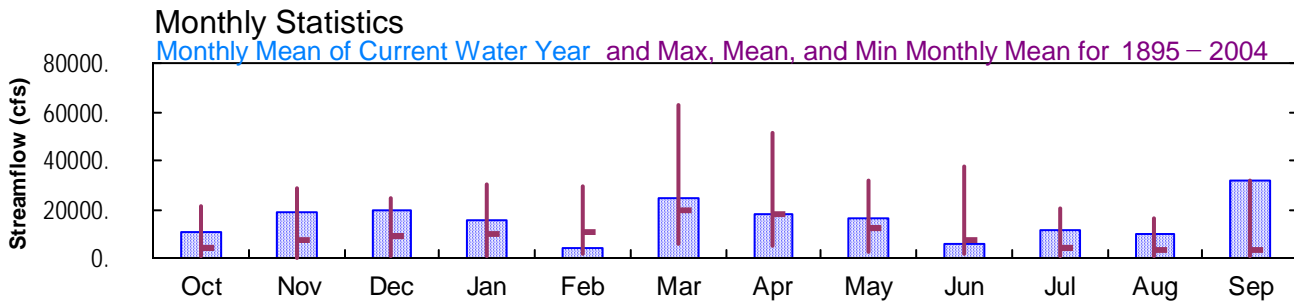
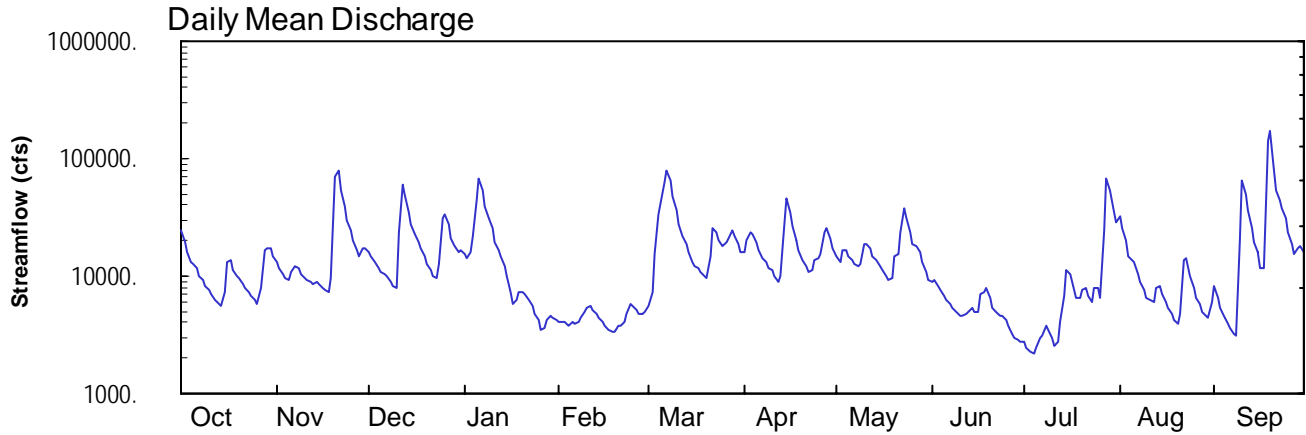
WEST BRANCH SUSQUEHANNA RIVER BASIN

01551500 WB Susquehanna River at Williamsport, PA

Latitude: 41° 14' 10"
Lycoming County

Longitude: 076° 59' 49"
Datum: 494.98 feet

Hydrologic Unit Code: 02050206
Drainage Area: 5682. mi²



WEST BRANCH SUSQUEHANNA RIVER BASIN

**01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA
(Pennsylvania Water-Quality Network Station)**

LOCATION.--Lat 41°14'10", long 76°59'49", Lycoming County, Hydrologic Unit 02050206, on right bank 100 ft upstream from Market Street bridge at South Williamsport, and 350 ft upstream from Hagermans Run.

DRAINAGE AREA.--5,682 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1895 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1925-28. WSP 1502: 1895-1904, 1912-13, 1919.

GAGE.--Water-stage recorder. Datum of gage is 494.98 ft above National Geodetic Vertical Datum of 1929. Mar. 1, 1895, to Sept. 30, 1928, nonrecording gage at bridge 100 ft downstream at same datum. Prior to July 1980, 100 ft downstream on left bank at same datum.

REMARKS.--Records good except those from Aug. 18 to Sept. 30, which are fair, and those for estimated daily discharges, which are poor. Flow slightly regulated by 6 flood-control reservoirs which have a combined capacity of 440,200 acre-ft. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1895, 32.4 ft, June 1, 1889, discharge, about 252,000 ft³/s.

**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	24100	12900	16200	15300	e4000	5630	15900	14700	8790	2710	32000	8290
2	19500	11500	14500	14200	e4000	7340	20300	13400	9120	2500	26000	6550
3	16200	10500	13000	16000	e4000	15600	23700	16500	8270	2310	19900	5320
4	13400	9560	11700	21900	e3800	e34000	22300	16600	7570	2170	14800	4610
5	12600	9290	10700	43500	e4000	42300	19100	14800	6650	2460	13600	3950
6	11600	10700	10300	68200	e3900	61900	16500	13500	6340	3040	13000	3580
7	10100	12300	9880	53200	e4100	79600	14500	12600	5840	3070	10400	3270
8	9110	11900	8900	38800	e4400	64100	12900	12000	5320	3740	8770	3140
9	8270	10500	8210	31500	e4900	47900	11900	12800	4900	3460	7510	e20000
10	7550	9800	7900	25000	e5400	36700	11100	18600	4620	2940	6510	e65000
11	6950	9110	23900	19500	e5500	27800	9960	18400	4580	2520	6220	e50000
12	6360	8730	60700	16700	e5100	21800	8960	17100	4760	2750	6120	36200
13	5910	8720	50500	14600	e4700	18900	9960	15100	4870	4080	7850	25800
14	5530	8760	35300	12000	e4400	15700	29200	13500	5300	6890	8200	19300
15	7240	8570	27900	9920	e4100	13100	45200	12300	4970	11200	7000	15700
16	13100	7990	22600	e7300	e3800	12200	34300	11300	4980	10200	5920	11700
17	13600	7640	19600	e5900	e3500	11600	26200	10000	7070	7670	5260	11700
18	11300	7450	17600	e6200	e3300	10800	20400	9290	7280	6400	4700	142000
19	10200	9680	14500	e7300	e3300	10100	16700	9770	7940	6500	4230	171000
20	9520	70000	12500	e7400	e3700	9670	13900	14800	6480	7670	3900	81600
21	8610	78900	11200	e7000	e3800	14900	12300	15400	5400	7810	4780	53600
22	7880	52800	9960	e6200	4130	25100	10900	23900	4870	6680	13500	43300
23	7360	38800	9510	e5600	4830	24000	11500	37800	4630	6070	14100	37200
24	6690	30300	12800	e4700	5730	20300	13500	31100	4530	7870	10000	30600
25	6140	24600	30500	e4200	e5500	17900	14500	23400	4180	7790	7870	23300
26	5680	20200	34000	e3500	e5100	19200	15500	18800	3780	6470	6490	18900
27	7890	16400	27200	e3600	4730	21100	23700	17700	3170	24100	5750	15300
28	16700	14800	21300	e4200	4700	24400	25000	15700	2980	66700	4950	17300
29	17400	17000	18000	e4500	4940	22100	20900	13100	2900	54000	4520	17700
30	17600	17400	15900	e4400	---	18800	17200	10700	2770	35100	4410	16100
31	14700	---	16400	e4300	---	16300	---	9110	---	29000	5970	---
TOTAL	338790	566800	603160	486620	127360	770840	547980	493770	164860	345870	294230	962010
MEAN	10930	18890	19460	15700	4392	24870	18270	15930	5495	11160	9491	32070
MAX	24100	78900	60700	68200	5730	79600	45200	37800	9120	66700	32000	171000
MIN	5530	7450	7900	3500	3300	5630	8960	9110	2770	2170	3900	3140
CFSM	1.92	3.33	3.42	2.76	0.77	4.38	3.21	2.80	0.97	1.96	1.67	5.64
IN.	2.22	3.71	3.95	3.19	0.83	5.05	3.59	3.23	1.08	2.26	1.93	6.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 2004, BY WATER YEAR (WY)

MEAN	4197	7097	8940	9742	10520	19970	18270	12330	7186	4097	2974	3102
MAX	20850	28330	24140	30210	29100	62970	51090	32030	37400	20080	16450	32070
(WY)	1991	1951	1928	1937	1981	1936	1993	1919	1972	1902	1994	2004
MIN	416	408	642	423	1965	5559	4633	2766	1501	847	592	425
(WY)	1931	1931	1931	1931	1931	1969	1946	1941	1999	1966	1910	1932

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1895 - 2004	
ANNUAL TOTAL	5071400		5702290			
ANNUAL MEAN	13890		15580		9035	
HIGHEST ANNUAL MEAN					15580	2004
LOWEST ANNUAL MEAN					5357	1934
HIGHEST DAILY MEAN	78900	Nov 21	171000	Sep 19	240000	Jun 23 1972
LOWEST DAILY MEAN	2390	Jul 20	2170	Jul 4	251	Sep 13 1932
ANNUAL SEVEN-DAY MINIMUM	2630	Jul 15	2550	Jun 29	328	Nov 25 1930
MAXIMUM PEAK FLOW			203000	Sep 18	^a 279000	Jun 23 1972
MAXIMUM PEAK STAGE			27.79	Sep 18	34.75	Jun 23 1972
INSTANTANEOUS LOW FLOW					162	Sep 17 1943
ANNUAL RUNOFF (CFSM)	2.45		2.74		1.59	
ANNUAL RUNOFF (INCHES)	33.20		37.33		21.61	
10 PERCENT EXCEEDS	27500		31200		20900	
50 PERCENT EXCEEDS	10100		10700		5100	
90 PERCENT EXCEEDS	4200		4060		1070	

^a From rating curve extended above 210,000 ft³/s on basis of slope-area measurement at gage height 33.57 ft.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

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

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 recover -able, mg/L (00916)	Magnesium, water, unfltrd recover -able, mg/L (00927)
OCT 2003	15...	1028	9813	7720	10.3	7.4	6.9	194	208	13.7	75	17.6	7.4
DEC 16...	1430	1028	9813	22000	15.3	7.1	6.8	140	150	2.6	55	13.7	5.1
APR 2004	06...	1415	1028	16300	12.3	7.2	7.3	155	151	6.4	59	14.2	5.6
JUN 16...	1000	1028	9813	4880	9.3	7.3	7.4	293	284	22.7	120	27.1	11.8
AUG 26...	1345	1028	9813	6360	10.2	7.8	7.5	191	181	21.5	75	18.4	6.9

Date	ANC, wat unfltrd fixed end pt, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC, wat fltrd, 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)	Ortho-phosphate, water, unfltrd, mg/L as P (70507)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, water, unfltrd, mg/L (00600)	Organic carbon, water, unfltrd, mg/L (00680)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Copper, water, unfltrd recover -able, µg/L (01042)	
OCT 2003	15...	21	57.5	124	14	<.020	.43	<.040	.01	.024	.70	1.6	500	<10
DEC 16...	19	35.1	108	8	<.020	.63	<.040	.02	.019	.65	1.2	500	<10	
APR 2004	06...	14	43.3	128	4	<.020	.51	<.040	.01	.012	.61	1.1	400	<10
JUN 16...	24	92.7	204	28	<.020	.51	<.040	<.01	<.010	.85	1.3	<200	30	
AUG 26...	26	46.8	154	4	<.020	.44	<.040	<.01	<.010	.51	1.7	<200	<10	

Date	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01092)	
OCT 2003	15...	720	<1.0	500	<50	80
DEC 16...	530	<1.0	260	<50	20	
APR 2004	06...	410	<1.0	330	<50	20
JUN 16...	80	<1.0	330	<50	50	
AUG 26...	160	<1.0	160	<50	<10	

WEST BRANCH SUSQUEHANNA RIVER BASIN

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, 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	10/15/03
Benthic Macroinvertebrate	Count
Nematoda (NEMATODES)	4
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Planorbidae	
<i>Planorbella</i>	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	6
Tubificidae	13
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	2
Insecta	
Ephemeroptera (MAYFLIES)	
Heptageniidae	1
<i>Epeorus</i>	1
<i>Leucrocuta</i>	1
<i>Stenacron</i>	3
<i>Stenonema</i>	9
Isonychiidae	
<i>Isonychia</i>	8
Plecoptera (STONEFLIES)	
Capniidae	3
Perlidae	
<i>Acroneuria</i>	1
Taeniopterygidae	
<i>Taeniopteryx</i>	21
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<i>Cheumatopsyche</i>	23
<i>Hydropsyche</i>	6
Leptoceridae	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Stenelmis</i>	1
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	14
Psychodidae	
<i>Pericoma</i>	2
<i>Psychoda</i>	3
Total Organisms	125
Total Taxa	22