



2004 Water Year

### WEST BRANCH SUSQUEHANNA RIVER BASIN

#### 01553500 West Branch Susquehanna River at Lewisburg, PA

Latitude: 40° 58' 03"

Longitude: 076° 52' 36"

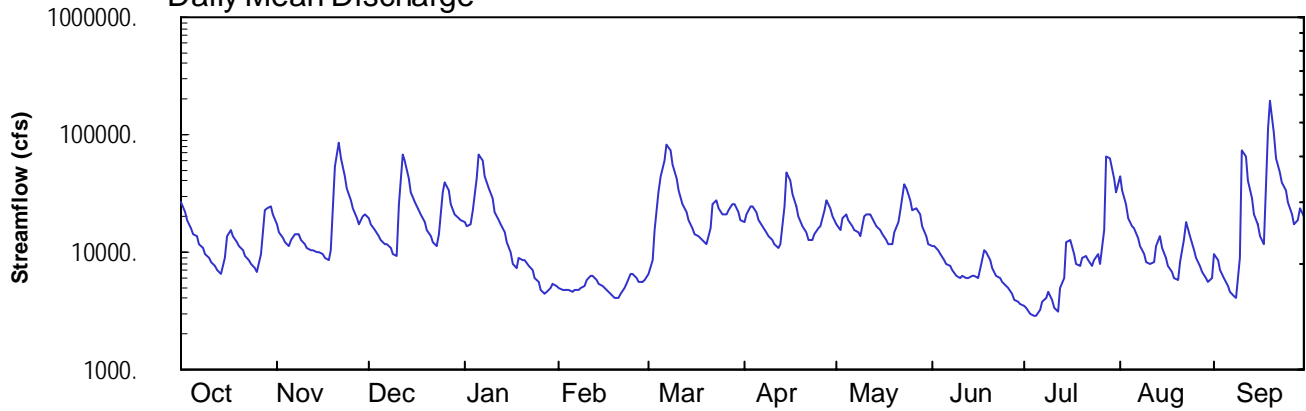
Hydrologic Unit Code: 02050206

Northumberland County

Datum: 428.20 feet

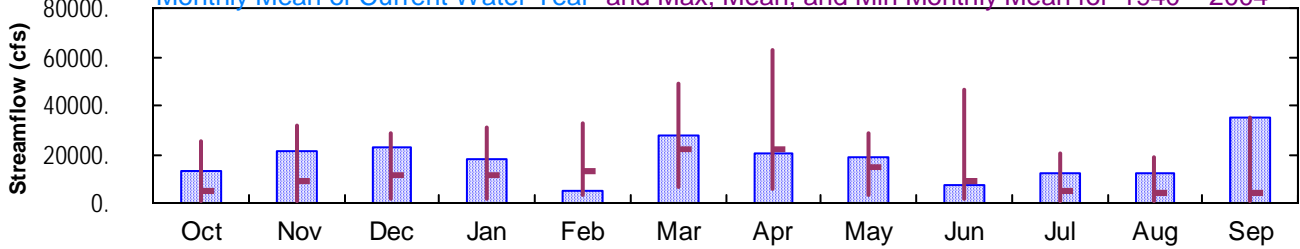
Drainage Area: 6847. mi<sup>2</sup>

#### Daily Mean Discharge

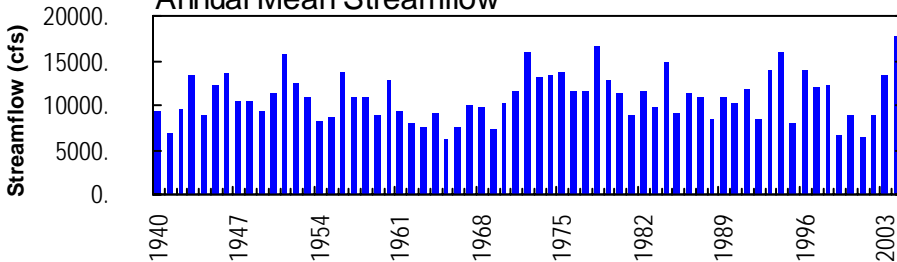


#### Monthly Statistics

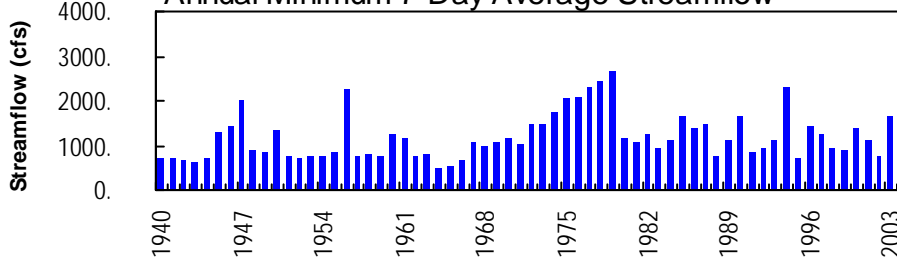
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1940 – 2004



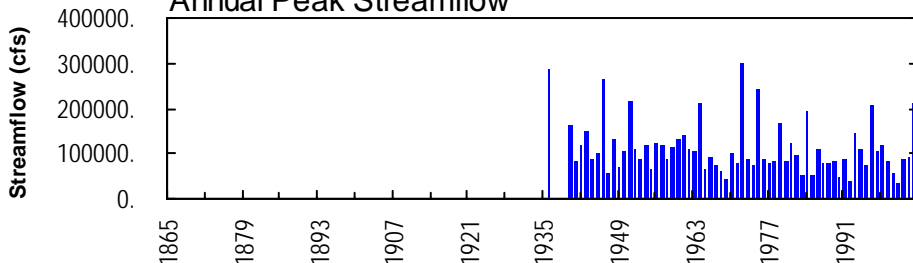
#### Annual Mean Streamflow



#### Annual Minimum 7-Day Average Streamflow



#### Annual Peak Streamflow



**WEST BRANCH SUSQUEHANNA RIVER BASIN**

**01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA  
(Pennsylvania Water-Quality Network Station)**

**LOCATION.**--Lat 40°58'03", long 76°52'36", Northumberland County, Hydrologic Unit 02050206, at downstream side of left abutment of Market Street bridge on State Highway 45 at Lewisburg, 0.2 mi downstream from Buffalo Creek, and 7.4 mi upstream from mouth.

**DRAINAGE AREA.**--6,847 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

**PERIOD OF RECORD.**--October 1939 to current year. September 1913 to August 1923 (gage heights only), are contained in reports of Water Supply Commission of Pennsylvania or Pennsylvania Department of Forests and Waters.

**GAGE.**--Water-stage recorder. Datum of gage is 428.20 ft above National Geodetic Vertical Datum of 1929. Sept. 21, 1913, to Aug. 31, 1923, Dec. 7, 1939, to July 2, 1940, and Oct. 20, 1987, to Sept. 30, 1988, nonrecording gage at same site and datum. Since Oct. 1, 1942, water-stage recorder for Susquehanna River at Sunbury (station 01553990) used as an auxiliary gage.

**REMARKS.**--Records good except 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. Satellite and landline telemetry at station.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Flood of Mar. 19, 1936, reached a stage of 32.1 ft, from floodmarks (backwater from Susquehanna River), discharge, 287,000 ft<sup>3</sup>/s from slope-area measurement at Watsonstown, 8.0 mi upstream.

**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	27000	17200	19300	18000	e5000	6400	17900	17100	11100	3440	43300	9490
2	22000	15000	17400	16600	e4700	8440	20900	15400	11200	3310	33500	8610
3	18500	13400	15600	17400	4720	15200	24600	19700	10400	3030	25500	6960
4	15800	12100	13800	22800	4770	32800	24800	21100	9540	2830	19500	5930
5	14200	11300	12600	42600	e4600	44100	21700	18500	8600	2900	16700	5240
6	13800	12700	11900	68400	4770	59000	18900	16800	8050	3270	16300	4620
7	11800	14000	11500	60400	e4700	82800	16700	15600	7580	3780	13400	4320
8	10700	14100	10600	43700	e4900	73400	15000	14900	6910	4140	11300	4090
9	9650	12700	9680	35000	5150	56000	13800	13900	6330	4540	9630	8870
10	8860	11700	9250	28200	5730	42800	12800	20000	5910	3880	8340	73300
11	8130	11000	25200	e22000	6190	33000	11700	21300	6330	3380	7780	64900
12	7510	10400	66800	e19000	6220	25800	10600	20700	5970	3100	8220	40200
13	7010	10500	60400	e17000	5870	22100	11500	19100	5960	4890	11500	28600
14	6550	10200	43000	e15000	5440	18800	24800	16600	6220	6000	13600	21000
15	8890	10100	32800	e12000	e5200	16000	48200	15400	6340	12000	10800	17000
16	13500	9460	26600	e10000	e4900	14400	40500	14400	6040	12600	8730	13900
17	15600	8940	22700	8060	e4500	13800	30600	12800	7240	9750	7520	11900
18	13700	8620	21000	7240	e4300	12900	24200	11600	10400	8020	6670	113000
19	11900	10600	17800	8730	4070	12200	19800	11600	9930	7670	6010	190000
20	11100	54100	15100	8720	4120	11700	16600	14800	8680	8810	5810	104000
21	10300	84800	13400	8620	4490	15800	14600	18100	7230	9220	8250	63400
22	9310	61600	12000	e7700	4930	25400	12900	23000	6260	8460	12600	47800
23	8680	43500	11200	e7000	5290	27200	12800	37800	5930	7620	17800	39600
24	8050	34400	14200	5970	6390	23500	14200	34600	5630	8590	13700	33600
25	7370	28100	31800	5520	6430	20600	16000	27100	5240	9540	10600	26400
26	6850	23600	39700	4800	6080	21000	16800	22300	4910	8030	8740	21000
27	9470	19300	33000	4370	5630	22700	22700	23400	4370	15600	7540	17300
28	22500	17100	26000	4510	5480	25800	27100	20600	3860	65000	6740	18600
29	23200	20200	21300	e5000	5730	25300	23800	16900	3760	62100	6110	24000
30	24800	20900	19100	e5300	---	21900	19900	13800	3580	42400	5660	20000
31	20700	---	18700	e5200	---	19000	---	11900	---	32200	6040	---
TOTAL	407430	631620	703430	544840	150300	849840	606400	580800	209500	380100	387890	1047630
MEAN	13140	21050	22690	17580	5183	27410	20210	18740	6983	12260	12510	34920
MAX	27000	84800	66800	68400	6430	82800	48200	37800	11200	65000	43300	190000
MIN	6550	8620	9250	4370	4070	6400	10600	11600	3580	2830	5660	4090
CFSM	1.92	3.07	3.31	2.57	0.76	4.00	2.95	2.74	1.02	1.79	1.83	5.10
IN.	2.21	3.43	3.82	2.96	0.82	4.62	3.29	3.16	1.14	2.07	2.11	5.69

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)**

MEAN	5280	9119	11670	11350	12780	21930	22310	14940	8995	4841	3735	4205
MAX	24900	32000	28230	30740	33010	49200	62990	28750	46900	20120	18700	34920
(WY)	1991	1951	1973	1952	1981	1945	1993	1978	1972	1972	1994	2004
MIN	659	762	1727	1752	2914	6169	5822	3353	1807	1032	983	601
(WY)	1964	1965	1961	1981	1940	1969	1946	1941	1999	1965	1966	1964

e Estimated.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	5874780		6499780			
ANNUAL MEAN	16100		17760		10910	
HIGHEST ANNUAL MEAN					17760	
LOWEST ANNUAL MEAN					6158	
HIGHEST DAILY MEAN	84900	Mar 21	190000	Sep 19	285000	Jun 24 1972
LOWEST DAILY MEAN	3220	Jul 20	2830	Jul 4	417	Nov 16 1964
ANNUAL SEVEN-DAY MINIMUM	3540	Jul 15	3190	Jun 30	511	Sep 15 1964
MAXIMUM PEAK FLOW			209000	Sep 19	<b>a</b> 300000	Jun 24 1972
MAXIMUM PEAK STAGE			26.01	Sep 19	<b>b</b> 34.23	Jun 24 1972
INSTANTANEOUS LOW FLOW					390	Nov 16 1964
ANNUAL RUNOFF (CFSM)	2.35		2.59		1.59	
ANNUAL RUNOFF (INCHES)	31.92		35.31		21.66	
10 PERCENT EXCEEDS	31900		34500		24800	
50 PERCENT EXCEEDS	11900		12800		6470	
90 PERCENT EXCEEDS	5000		4910		1490	

**a** About.

**b** From floodmarks (backwater from Susquehanna River).

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, 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 09...	1300	1028	9813	9610	9.5	7.2	7.4	176	171	11.9	67	16.8	6.1
DEC 18...	0745	1028	9813	21500	11.1	--	7.2	152	152	2.1	55	13.8	5.1
FEB 2004 19...	0930	1028	9813	4100	14.1	7.5	7.6	311	316	.8	130	31.2	12.3
APR 14...	1130	1028	9813	22300	11.2	7.3	7.2	163	154	8.1	66	17.4	5.5
JUN 08...	1100	1028	9813	6900	9.5	7.2	7.0	193	197	19.8	77	19.5	6.9
AUG 16...	1100	1028	9813	8770	9.1	7.4	7.0	180	180	20.5	71	17.9	6.3

Date	ANC, wat unfltrd fixed end pt, lab, 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 09...	18	50.7	66	10	<.020	.49	<.040	<.01	.011	.71	1.2	<200	<10
DEC 18...	20	35.2	120	2	.040	.69	<.040	.02	.021	.63	1.2	500	<10
FEB 2004 19...	46	76.1	200	<2	.070	1.36	<.040	.01	.015	1.6	1.0	<200	<10
APR 14...	25	34.7	112	54	.060	.88	<.040	.02	.075	1.7	2.7	2200	<10
JUN 08...	26	52.4	148	4	<.020	.59	<.040	<.01	<.010	.78	1.2	<200	<10
AUG 16...	27	41.9	170	<2	<.020	.52	<.040	<.01	.024	.62	1.8	<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 09...	170	<1.0	320	<50	<10
DEC 18...	490	<1.0	250	<50	70
FEB 2004 19...	100	<1.0	460	<50	20
APR 14...	2130	2.2	300	<50	30
JUN 08...	140	<1.0	180	<50	<10
AUG 16...	140	<1.0	90	<50	10

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, 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	10/09/03
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	4
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancyliidae	
<i>Ferrissia</i>	2
Hydrobiidae	
<i>Ammicola</i>	6
Planorbidae	
<i>Planorbella</i>	1
Pleuroceridae	
<i>Elimia</i>	1
Bivalvia (CLAMS)	
Veneroida	
Corbiculidae	
<i>Corbicula fluminea</i>	83
Sphaeriidae	
<i>Sphaerium</i>	2
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbricina	1
Tubificida	
Tubificidae	1
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Acentrella</i>	1
Caenidae	
<i>Caenis</i>	3
Ephemerellidae	
<i>Ephemerella</i>	3
<i>Serratella</i>	1
Heptageniidae	2
<i>Leucrocuta</i>	2
<i>Stenacron</i>	2
<i>Stenonema</i>	23
Isonychiidae	
<i>Isonychia</i>	9
Tricorythidae	
<i>Tricorythodes</i>	1
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Gomphidae	
<i>Gomphus</i>	1
Plecoptera (STONEFLIES)	
Taeniopterygidae	
<i>Taeniopteryx</i>	4

## WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

BIOLOGICAL DATA  
BENTHIC MACROINVERTEBRATES--Continued

Date	10/09/03
Benthic Macroinvertebrate	Count
Trichoptera (CADDISFLIES)	
Glossosomatidae	
<i>Proptila</i>	1
Hydropsychidae	
<i>Cheumatopsyche</i>	10
<i>Hydropsyche</i>	2
Hydroptilidae	
<i>Hydroptila</i>	1
Leptoceridae	
<i>Ceraclea</i>	2
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Dubiraphia</i>	1
<i>Optioservus</i>	3
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	3
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	
Empididae (DANCE FLIES)	
<i>Hemerodromia</i>	2
Simuliidae (BLACK FLIES)	
<i>Simulium</i>	7
Total Organisms	191
Total Taxa	32