

## 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 Watsontown, 8.0 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4250	5480	6780	9380	4490	e11000	18200	6340	20800	6390	10900	8690
2	3090	5390	6300	22500	4780	e10000	17200	6150	32100	5880	28200	13600
3	2500	5550	5890	45000	4910	e9500	19400	5920	28600	5360	36400	18100
4	2100	5310	5090	39000	5820	e9000	20600	5900	25200	4890	29900	25600
5	1830	4820	4390	29700	6270	8530	22000	5560	23500	4590	33300	35800
6	1740	4880	4090	22900	6170	8420	34500	5370	22400	4220	33800	29200
7	1650	5190	4270	18600	6370	8170	41600	5550	21000	3980	26000	21500
8	1550	5640	4290	16000	6160	7890	34400	6420	20600	3900	19900	16500
9	1410	6020	4450	14900	5890	8340	27800	7370	19800	4060	17300	13500
10	1380	5690	4150	14900	5630	9760	24000	8360	18600	4070	21300	11400
11	1910	5420	e3600	14400	5580	11400	23800	9270	17400	6310	32400	9670
12	16300	5800	e5200	12900	5500	11300	28300	10200	16600	6300	32700	8410
13	16600	6940	6180	11300	e5200	11700	27300	11000	16100	5800	26100	7620
14	8150	6940	9790	9910	e5000	13400	24200	10700	16500	5350	20800	7410
15	5370	6700	14600	9380	e4800	18100	20900	9970	16300	4380	16200	7230
16	5770	6610	16000	9080	e4200	21500	18300	9570	14600	3760	13000	7970
17	14300	8530	14600	7760	e4600	29100	16200	10700	12600	3400	13800	9250
18	10500	14900	12100	e6600	e4800	50000	14500	12100	11900	3230	11800	9010
19	7290	19000	9950	e5800	e5000	69200	13000	12200	11500	3540	9780	7890
20	6030	17100	10200	e5600	e5200	70300	11500	11600	11400	3220	8180	10500
21	5120	14500	18200	e5900	e5400	84900	10500	11300	21900	3240	7060	13300
22	4410	12900	24900	e5600	e5600	80500	10200	11200	29400	4440	6320	13200
23	3980	12800	23200	e4800	e7200	68100	9950	11500	25700	9530	5720	22400
24	3510	11800	18900	e4200	e9300	60200	9320	12100	19600	13800	5190	33000
25	3220	10500	16200	e4200	e11000	49600	8510	14300	15600	14800	4780	29000
26	4600	9580	14600	4710	e14000	40600	8090	15000	13000	13900	4470	23300
27	6670	9010	12600	4650	e13000	33800	8110	15900	10900	11000	4250	19400
28	6800	8290	10900	4700	e12000	28400	7730	16300	9220	13500	4120	18900
29	6870	7740	9600	4340	---	24200	7260	16900	8020	22700	5680	35900
30	6190	7220	8840	4300	---	22300	6790	16000	7050	18700	6040	35000
31	6100	---	8330	4350	---	20500	---	14200	---	13300	5180	---
TOTAL	171190	256250	318190	377360	183870	909710	544160	324950	537890	231540	500570	522250
MEAN	5522	8542	10260	12170	6567	29350	18140	10480	17930	7469	16150	17410
MAX	16600	19000	24900	45000	14000	84900	41600	16900	32100	22700	36400	35900
MIN	1380	4820	3600	4200	4200	7890	6790	5370	7050	3220	4120	7230
CFSM	0.81	1.25	1.50	1.78	0.96	4.29	2.65	1.53	2.62	1.09	2.36	2.54
IN.	0.93	1.39	1.73	2.05	1.00	4.94	2.96	1.77	2.92	1.26	2.72	2.84

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

MEAN	5157	8933	11500	11250	12900	21850	22340	14880	9027	4725	3598	3725
MAX	24900	32000	28230	30740	33010	49200	62990	28750	46900	20120	18700	24080
(WY)	1991	1951	1973	1952	1981	1945	1993	1978	1972	1972	1994	1975
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.

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

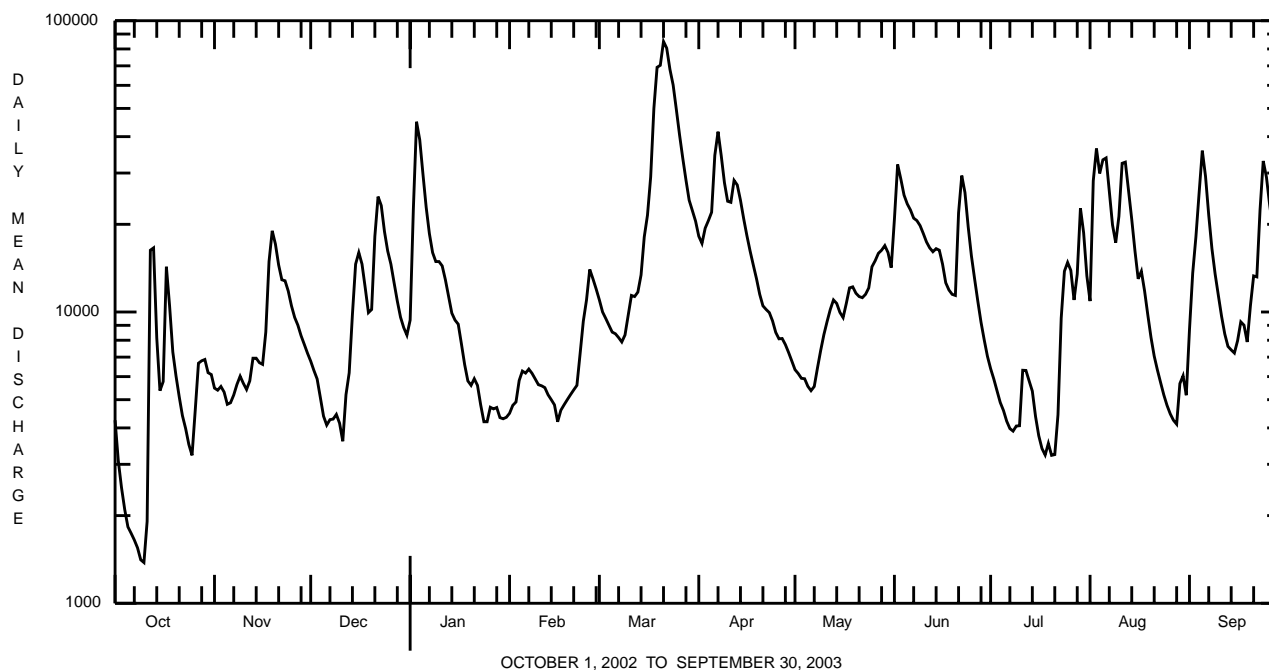
SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1940 - 2003	
ANNUAL TOTAL	3500070		4877930			
ANNUAL MEAN	9589		13360		10810	
HIGHEST ANNUAL MEAN					16710	
LOWEST ANNUAL MEAN					6158	
HIGHEST DAILY MEAN	82700	May 14	84900	Mar 21	285000	Jun 24 1972
LOWEST DAILY MEAN	<sup>e</sup> 700	Sep 14	1380	Oct 10	417	Nov 16 1964
ANNUAL SEVEN-DAY MINIMUM	<sup>a</sup> 757	Sep 10	1640	Oct 5	511	Sep 15 1964
MAXIMUM PEAK FLOW			90200	Mar 21	<sup>b</sup> 300000	Jun 24 1972
MAXIMUM PEAK STAGE			16.14	Mar 21	<sup>c</sup> 34.23	Jun 24 1972
INSTANTANEOUS LOW FLOW					390	Nov 16 1964
ANNUAL RUNOFF (CFSM)	1.40		1.95		1.58	
ANNUAL RUNOFF (INCHES)	19.02		26.50		21.44	
10 PERCENT EXCEEDS	19700		27500		24500	
50 PERCENT EXCEEDS	6870		9780		6400	
90 PERCENT EXCEEDS	1280		4320		1480	

**a** Computed using estimated daily discharges.

**b** About.

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

**e** Estimated.





## WEST BRANCH SUSQUEHANNA RIVER BASIN

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

BIOLOGICAL DATA  
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using rapid bioassessment protocols for benthic macroinvertebrates using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 (approximate) subsamples.

Date	8/20/02
Benthic Macroinvertebrate	Count
Nematoda (NEMATODES)	1
Nemertea (PROBOSAS WORMS)	
Enopla	
Hoploneuridae	
Tetrastemmatidae	
<u>Prostoma</u> sp	1
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Hydrobiidae	
<u>Amnicola</u> sp	2
Planorbidae	
<u>Gyraulus</u> sp	1
Pleuroceridae	
<u>Elimia</u> sp	3
Bivalvia (CLAMS)	
Veneroida	
Corbiculidae	
<u>Corbicula fluminea</u>	2
Sphaeriidae	
<u>Sphaerium</u> sp	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	5
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	13
<u>Baetis</u> sp	12
<u>Plauditus</u> sp	2
Heptageniidae	18
<u>Leucrocuta</u> sp	4
<u>Stenonema</u> sp	10
Isonychiidae	
<u>Isonychia</u> sp	40
Tricorythidae	
<u>Tricorythodes</u> sp	30
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Gomphidae	1
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
<u>Corydalus</u> sp	1

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BIOLOGICAL DATA  
BENTHIC MACROINVERTEBRATES--Continued

Date	8/20/02
Benthic Macroinvertebrate	Count
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<u>Cheumatopsyche</u> sp	16
<u>Hydropsyche</u> sp	3
<u>Macrostemum</u> sp	2
Hydroptilidae	
<u>Hydroptila</u> sp	10
Philopotamidae	
<u>Chimarra</u> sp	20
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<u>Stenelmis</u> sp	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	23
Total Organisms	223