

## SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA  
(Pennsylvania Water-Quality Network Station)

**LOCATION.**--Lat 40°57'29", long 76°37'10", Montour County, Hydrologic Unit 02050107, on right bank 800 ft upstream from State Route 54 bridge at Danville, and 0.8 mi upstream from Mahoning Creek.

**DRAINAGE AREA.**--11,220 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--March 1899 to current year. Prior to April 1905 monthly discharge only, published in WSP 1302.

**REVISED RECORDS.**--WSP 756: Drainage area. WSP 1302: 1904, 1914-17, 1923. WSP 1432: 1900-03, 1905-06, 1908-10, 1912-13, 1933.

**GAGE.**--Water-stage recorder. Datum of gage is 431.29 ft above National Geodetic Vertical Datum of 1929. Prior to June 29, 1939, nonrecording gage at or near Mill Street bridge at same datum. Since Oct. 1, 1971, 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 8 flood-control reservoirs which have a combined capacity of 368,800 acre-ft. Satellite and landline telemetry at station.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Flood of Mar. 18, 1865, reached a stage of 28 ft, discharge not determined.

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	10100	12600	17600	17900	7720	18400	53900	15900	28400	10600	9220	4620
2	9820	11300	16200	33600	7680	16900	52000	14300	75500	9380	8280	7760
3	7720	10300	15200	56500	8030	16800	50200	19400	73900	8390	11000	20400
4	6350	9280	13900	49900	9020	15300	51300	20300	52600	7630	17700	47300
5	5470	8820	12600	37700	10900	14900	45800	19700	38900	7120	20100	50200
6	4690	9050	11600	31300	12000	14900	55000	17700	32000	6600	21400	42200
7	4250	9210	e11000	27100	14100	14100	70500	15600	28500	6050	20400	29000
8	4070	8990	10800	24300	15200	13700	57400	14500	29600	5780	18400	21300
9	3950	9080	e11000	22800	15400	14100	47300	13800	27500	5570	15800	16000
10	3850	10000	e10000	22800	13300	14800	41200	13000	24100	5500	16200	12800
11	4610	10300	8860	24100	13300	15000	39700	12100	20400	5790	25400	10700
12	14100	9930	13000	22800	11600	14800	42700	11500	19200	7370	43500	9250
13	29000	11500	15000	20100	10900	14600	40900	11800	17900	8400	31100	8280
14	17100	12500	19500	17800	9730	14600	35400	12700	18200	6880	27800	7670
15	10900	12300	29100	16000	9330	14900	31400	15600	21900	6590	20800	7070
16	10400	12500	38400	15000	8330	16400	28100	17300	22700	5940	16000	7800
17	23600	14000	35100	12900	7710	26100	25100	15500	19900	5430	15600	9270
18	29700	21700	29200	11700	5920	57100	22600	14000	16600	5020	12400	8180
19	25500	35700	22800	9840	7910	89000	20900	13400	14500	4700	10600	9360
20	24000	33900	20300	9160	7980	97600	19200	12500	13400	4670	9280	10100
21	19100	28200	27300	10600	8440	114000	17600	11400	39800	4720	8350	8720
22	16000	24600	40100	9140	9060	129000	16900	10300	82300	6950	7560	7760
23	14400	25700	40400	8290	14000	124000	16500	9570	85700	11000	6990	14900
24	12200	28900	33000	8080	17000	111000	15800	9600	55600	38800	6290	28200
25	10300	31800	27900	7690	22200	101000	15600	10500	38000	37400	5660	25600
26	10900	30400	24600	7710	25200	87200	16100	12400	27400	35300	5220	25300
27	12700	26900	21900	7870	23400	75400	17100	16300	20900	26600	4840	19600
28	13600	24000	19600	8090	20400	68700	17100	16500	17000	20100	4570	16600
29	15400	21600	17100	7680	---	59400	17700	15600	14200	15600	4340	16200
30	15700	19300	16500	7410	---	54500	17800	15200	12200	13100	4480	21600
31	14400	---	16400	7740	---	54000	---	13800	---	11000	4440	---
TOTAL	403880	534360	645960	573600	345760	1492200	998800	441770	988800	353980	433720	523740
MEAN	13030	17810	20840	18500	12350	48140	33290	14250	32960	11420	13990	17460
MAX	29700	35700	40400	56500	25200	129000	70500	20300	85700	38800	43500	50200
MIN	3850	8820	8860	7410	5920	13700	15600	9570	12200	4670	4340	4620
CFSM	1.16	1.59	1.86	1.65	1.10	4.29	2.97	1.27	2.94	1.02	1.25	1.56
IN.	1.34	1.77	2.14	1.90	1.15	4.95	3.31	1.46	3.28	1.17	1.44	1.74

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 2003, BY WATER YEAR (WY)

MEAN	7748	12750	15990	16080	16910	32680	35050	19430	10950	6327	4670	5165
MAX	43890	38540	49410	44410	46420	91900	106900	44980	62370	28490	23110	30900
(WY)	1978	1927	1997	1996	1976	1936	1993	1943	1972	1915	1915	1975
MIN	868	852	1602	1853	2841	11740	7664	5643	2427	1308	1087	740
(WY)	1965	1965	1909	1931	1920	1965	1946	1941	1999	1965	1999	1964

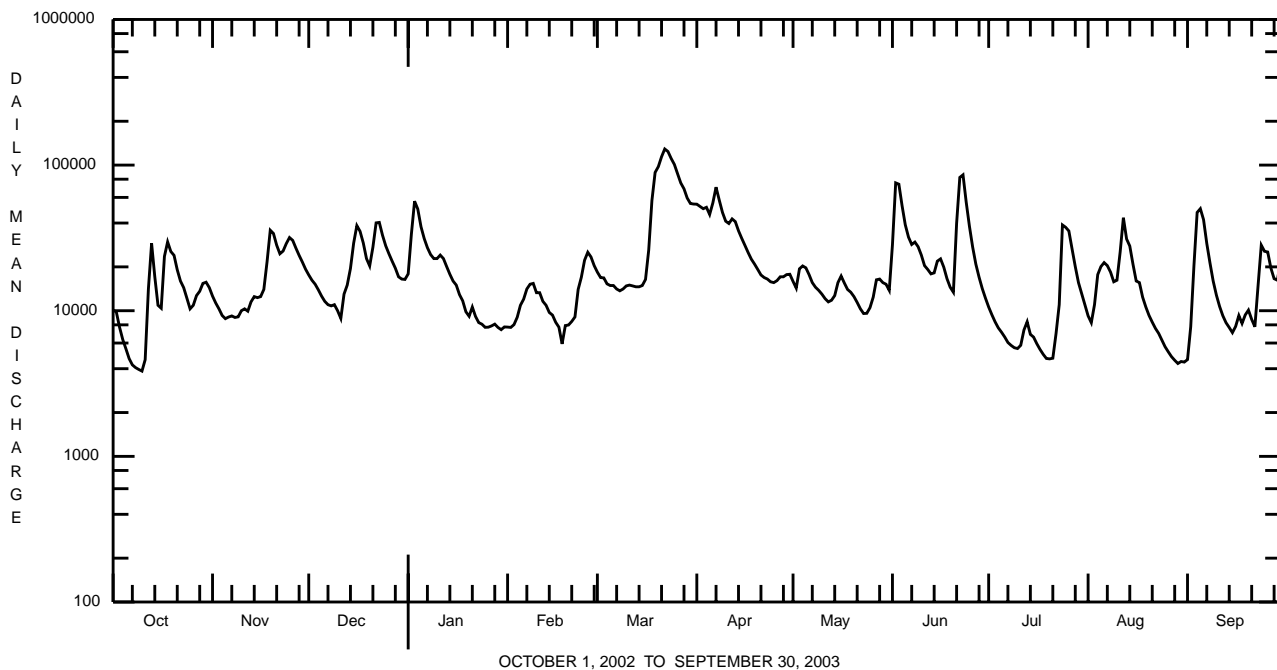
e Estimated.

SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1905 - 2003	
ANNUAL TOTAL	5726150		7736570			
ANNUAL MEAN	15690		21200		15300	
HIGHEST ANNUAL MEAN					24670	1978
LOWEST ANNUAL MEAN					6948	1965
HIGHEST DAILY MEAN	83200	May 15	129000	Mar 22	335000	Jun 25 1972
LOWEST DAILY MEAN	1090	Sep 14	3850	Oct 10	558	Sep 24 1964
ANNUAL SEVEN-DAY MINIMUM	1140	Sep 9	4410	Oct 5	579	Sep 21 1964
MAXIMUM PEAK FLOW			130000	Mar 22	<b>a</b> 363000	Jun 25 1972
MAXIMUM PEAK STAGE			<b>b</b> 18.81	Mar 22	<b>b</b> 32.32	Jun 24 1972
INSTANTANEOUS LOW FLOW					508	Sep 27 1964
ANNUAL RUNOFF (CFSM)	1.40		1.89		1.36	
ANNUAL RUNOFF (INCHES)	18.99		25.65		18.53	
10 PERCENT EXCEEDS	32700		41600		36100	
50 PERCENT EXCEEDS	12700		15500		8520	
90 PERCENT EXCEEDS	1710		7270		2100	

**a** From rating curve extended above 250,000 ft<sup>3</sup>/s.  
**b** Backwater from West Branch Susquehanna River.



## SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued  
(Pennsylvania Water-Quality Network Station)

## WATER-QUALITY RECORDS

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

REMARKS.--Other data for the Water-Quality Network can be found on pages 368-434.

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 2002 TO SEPTEMBER 2003

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)	Specific conductance, wat unfltrd $\mu$ S/cm 25 degC (00095)	Temperature, water, unfltrd deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, unfltrd recover -able, mg/L (00927)	ANC, water unfltrd fixed end pt, lab, mg/L as CaCO3 (00417)
NOV 2002	20...	1028	9813	33300	40	11.7	7.5	173	6.1	64	18.9	4.0	40
JAN 2003	13...	1028	9813	20600	40	14.7	7.4	222	.1	77	22.4	5.2	44
MAR 2003	18...	1028	9813	61000	40	13.2	7.2	205	2.7	66	18.8	4.6	35
MAY 2003	20...	1028	9813	12600	40	10.8	8.1	225	16.3	79	23.2	5.0	57
JUL 2003	16...	1028	9813	5860	40	8.2	8.1	305	25.8	100	29.4	7.2	63
SEP 2003	23...	1028	9813	16800	40	10.2	7.2	262	19.2	77	21.3	5.7	49

Date	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 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, $\mu$ g/L (01105)	Copper, water, unfltrd recover -able, $\mu$ g/L (01042)	Iron, water, unfltrd recover -able, $\mu$ g/L (01045)
NOV 2002	17.9	166	50	<.020	.63	<.040	.03	.042	1.3	3.9	700	<10	1460
JAN 2003	22.3	154	12	<.020	.96	<.040	.02	.024	1.2	2.2	<200	<10	520
MAR 2003	15.1	36	130	.020	.87	<.040	.04	.158	1.6	3.4	3700	<10	5800
MAY 2003	20.2	156	4	<.020	.45	<.040	.02	.035	.84	2.9	400	<10	760
JUL 2003	36.6	220	2	<.020	.57	<.040	.02	.021	.89	3.2	<200	<10	480
SEP 2003	24.5	170	152	<.020	.66	<.040	.03	.162	1.1	3.8	2700	<10	4870

Date	Lead, water, unfltrd recover -able, $\mu$ g/L (01051)	Manganese, water, unfltrd recover -able, $\mu$ g/L (01055)	Nickel, water, unfltrd recover -able, $\mu$ g/L (01067)	Zinc, water, unfltrd recover -able, $\mu$ g/L (01092)	Gross alpha radioac water unfltrd pCi/L (01519)	Gross beta radioac water unfltrd pCi/L (85817)	Tritium water unfltrd pCi/L (07000)
NOV 2002	1.4	140	<50	<10	--	--	--
JAN 2003	<1.0	90	<50	50	.38	1	61
MAR 2003	4.0	320	<50	70	1.06	6	43
MAY 2003	<1.0	100	<50	10	.51	2	--
JUL 2003	<1.0	60	<50	<10	.12	2	24
SEP 2003	5.3	260	<50	40	--	--	--

## SUSQUEHANNA RIVER BASIN

## 01540500 SUSQUEHANNA RIVER AT DANVILLE, 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	8/19/02
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	1
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Physidae	
<u>Physa</u> sp	1
Pleuroceridae	
<u>Leptoxis carinata</u>	2
Bivalvia (CLAMS)	
Veneroidea	
Corbiculidae	
<u>Corbicula fluminea</u>	2
Sphaeriidae	
<u>Sphaerium</u> sp	2
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	5
<u>Acentrella</u> sp	2
Ephemerellidae	4
<u>Serratella</u> sp	11
Heptageniidae	1
<u>Stenonema</u> sp	1
Isonychiidae	
<u>Isonychia</u> sp	16
Potamanthidae	
<u>Anthopotamus</u> sp	27
Tricorythidae	
<u>Tricorythodes</u> sp	33
Plecoptera (STONEFLIES)	
Perlidae	
<u>Agnetina</u> sp	3
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
<u>Corydalis</u> sp	4
Trichoptera (CADDISFLIES)	
Hydropsychidae	4
<u>Cheumatopsyche</u> sp	19
<u>Hydropsyche</u> sp	6
<u>Macrostemum</u> sp	12
Hydroptilidae	
<u>Hydroptila</u> sp	17
Leptoceridae	
<u>Ceraclea</u> sp	1
Philopotamidae	
<u>Chimarra</u> sp	30

## SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

BIOLOGICAL DATA  
BENTHIC MACROINVERTEBRATES--Continued

Date	8/19/02
Benthic Macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<u>Stenelmis</u> sp	40
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	95
Empididae (DANCE FLIES)	
<u>Hemerodromia</u> sp	4
Simuliidae (BLACK FLIES)	
<u>Simulium</u> sp	138
Total Organisms	481