

## SCHUYLKILL RIVER BASIN

01473900 WISSAHICKON CREEK AT FORT WASHINGTON, PA  
(Pennsylvania Water-Quality Network Station)

**LOCATION.**--Lat 40°07'26", long 75°13'13", Montgomery County, Hydrologic Unit 02040203, on left bank at downstream side of bridge on State Highway 73, 0.5 mi downstream from Sandy Run, and 1 mi south of Fort Washington.

**DRAINAGE AREA.**--40.8 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--September 1961 to March 1969; June 2000 to current year; Annual maximums, October 1969 to September 1979, at site and datum then in use.

**GAGE.**--Water-stage recorder and crest-stage gage. Datum of gage is 139.98 ft above National Geodetic Vertical Datum of 1929. From Sept. 1961 to Mar. 1969 gage at present site at datum 140.70 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Records fair except those for estimated daily discharges, which are poor. Several measurements of temperature were made during the year. Satellite telemetry at station.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Flood of Sept. 16, 1999, reached a stage of 18.05 ft, from floodmarks, discharge about 14,300 ft<sup>3</sup>/s.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 1,300 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)
Nov. 17	0445	1,420	6.68	June 13	2030	1,830	7.57
Dec. 11	2015	1,630	7.14	June 20	1745	2,590	8.96
Jan. 1	1815	2,280	8.42	Aug. 5	1600	1,630	7.14
Feb. 22	1800	*3,010	*9.66	Aug. 9	2100	2,930	9.55
Mar. 20	2330	1,720	7.34	Sept. 15	2100	1,910	7.72
May 26	1100	1,640	7.16	Sept. 19	0545	1,650	7.19
June 4	1145	2,260	8.37	Sept. 23	1100	1,870	7.64

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	17	44	37	506	32	60	74	45	115	46	94	27
2	16	40	35	200	32	432	78	64	54	42	53	82
3	16	30	32	150	31	237	68	41	44	44	27	81
4	16	27	30	144	55	101	61	37	787	42	79	89
5	15	25	35	98	40	281	62	39	293	39	519	49
6	14	89	34	98	31	516	57	45	108	36	114	33
7	15	35	32	87	34	160	66	38	258	79	60	29
8	13	28	33	84	31	147	85	126	e145	52	104	28
9	14	27	33	86	30	319	161	47	e120	35	568	26
10	20	23	30	72	31	145	104	43	e95	36	289	25
11	196	31	367	63	30	100	204	40	e80	40	123	24
12	66	183	321	57	28	116	193	38	73	38	68	23
13	25	118	182	55	27	141	104	37	373	32	51	94
14	19	50	441	51	26	120	85	37	347	29	42	128
15	18	38	116	48	26	99	77	34	141	29	37	338
16	89	63	83	44	e27	104	71	37	89	28	35	139
17	54	468	65	45	e28	113	63	54	77	26	33	52
18	24	282	55	41	e30	92	61	37	236	25	31	47
19	19	80	53	40	32	78	59	34	100	36	30	449
20	18	60	210	40	34	369	58	34	1020	25	29	63
21	17	53	96	37	43	394	57	49	541	26	28	45
22	16	98	67	35	1010	132	58	37	161	201	27	39
23	15	69	58	34	787	101	54	36	119	42	28	403
24	15	50	52	e33	242	85	50	40	96	e130	24	77
25	16	45	286	32	120	76	47	39	83	e30	24	54
26	158	40	138	32	86	85	78	570	73	27	24	46
27	32	68	92	30	69	91	55	e90	66	26	42	58
28	23	50	77	28	65	70	49	e60	57	28	30	189
29	40	42	69	30	---	73	47	e55	54	26	24	59
30	191	40	65	29	---	100	45	e50	51	24	149	45
31	111	---	71	29	---	91	---	46	---	23	40	---
TOTAL	1318	2296	3295	2358	3057	5028	2331	1979	5856	1342	2826	2841
MEAN	42.5	76.5	106	76.1	109	162	77.7	63.8	195	43.3	91.2	94.7
MAX	196	468	441	506	1010	516	204	570	1020	201	568	449
MIN	13	23	30	28	26	60	45	34	44	23	24	23
CFSM	1.04	1.88	2.61	1.86	2.68	3.98	1.90	1.56	4.78	1.06	2.23	2.32
IN.	1.20	2.09	3.00	2.15	2.79	4.58	2.13	1.80	5.34	1.22	2.58	2.59

## STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

	23.1	33.2	49.0	60.0	73.3	100	61.8	52.1	67.7	28.0	36.2	33.2
MEAN	23.1	33.2	49.0	60.0	73.3	100	61.8	52.1	67.7	28.0	36.2	33.2
MAX	55.7	76.5	111	108	119	162	115	77.5	219	51.2	107	94.7
(WY)	1967	2003	1968	1964	1966	2003	1962	1968	2001	1967	1967	2003
MIN	7.45	11.7	14.0	17.4	23.8	61.6	30.2	17.2	10.9	9.88	8.55	11.3
(WY)	1964	1966	1966	1966	2002	1965	1963	1963	1963	1962	1964	1968

e Estimated.

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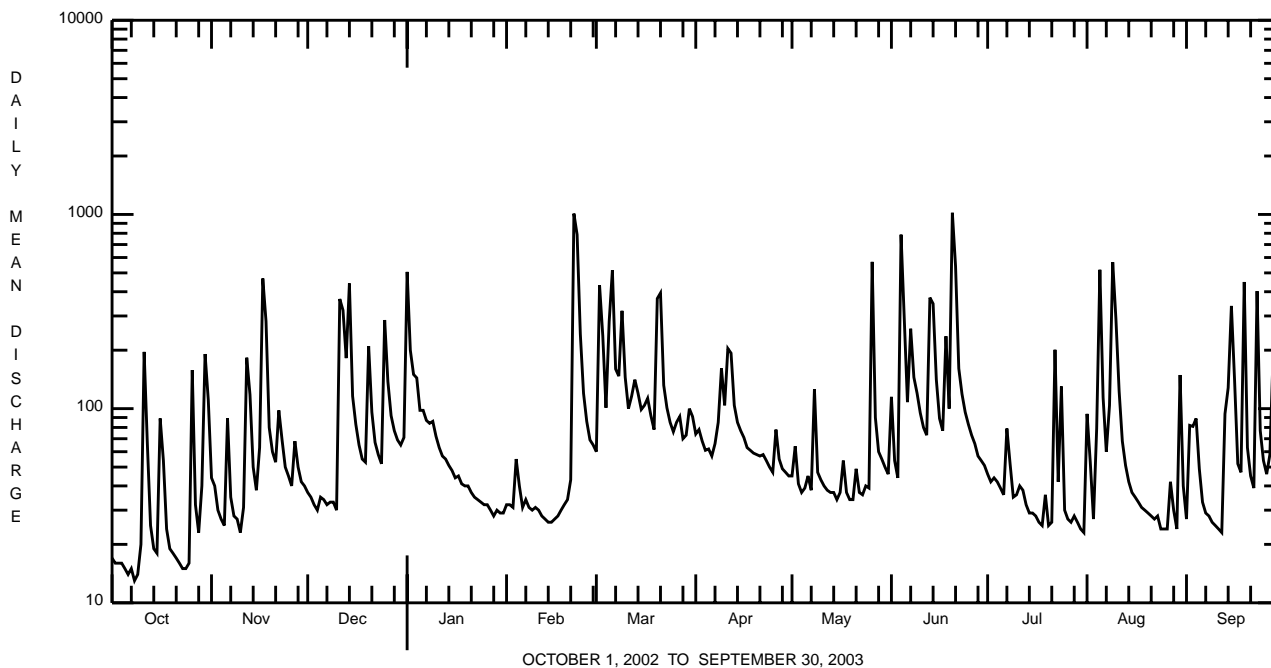
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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	18344		34527			
ANNUAL MEAN	50.3		94.6		52.1	
HIGHEST ANNUAL MEAN					94.6	2003
LOWEST ANNUAL MEAN					31.6	1965
HIGHEST DAILY MEAN	707	May 18	1020	Jun 20	2490	Jun 17 2001
LOWEST DAILY MEAN	11	Aug 11-15 <sup>a</sup>	13	Oct 8	4.6	Jul 5 1963
ANNUAL SEVEN-DAY MINIMUM	11	Aug 9	15	Oct 3	5.6	Jul 1 1963
MAXIMUM PEAK FLOW			b3010	Feb 22	b11000	Jun 17 2001
MAXIMUM PEAK STAGE			9.66	Feb 22	c16.30	Jun 17 2001
INSTANTANEOUS LOW FLOW			10	Oct 8	2.9	Sep 2 1963
ANNUAL RUNOFF (CFSM)	1.23		2.32		1.28	
ANNUAL RUNOFF (INCHES)	16.73		31.48		17.37	
10 PERCENT EXCEEDS	102		198		98	
50 PERCENT EXCEEDS	28		52		27	
90 PERCENT EXCEEDS	13		26		9.3	

<sup>a</sup> Also Aug. 18, 19, 21, 22, Sept. 12, 25

<sup>b</sup> From rating curve extended above 1,860 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 16.30 ft.

<sup>c</sup> From floodmark.



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WATER-QUALITY RECORDS

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

REMARKS.--Other data for the Water-Quality Network can be found on pages 430-470.

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 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)	ANC, wat unfltrd fixed end pt, lab, mg/L as CaCO3 (00417)
NOV 2002 26...	1240	1028	9813	37	30	11.5	7.7	643	9.0	180	45.4	17.3	108
JAN 2003 15...	1150	1028	9813	47	30	14.8	7.7	754	3.1	190	47.0	17.6	95
MAR 31...	1050	1028	9813	88	30	16.0	8.3	667	7.6	160	38.9	14.6	85
MAY 08...	1140	1028	9813	83	30	8.6	7.3	567	16.6	140	34.4	13.1	76
JUL 02...	1140	1028	9813	42	30	8.8	7.7	661	20.5	190	45.9	17.2	96
SEP 04...	1150	1028	9813	69	30	8.1	7.7	540	20.1	150	36.4	14.5	98

Date	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC, suspended, 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)	Iron, water, unfltrd recover -able, µg/L (01045)
NOV 2002 26...	52.2	428	8	.180	6.68	<.200	1.02	1.23	7.8	5.4	<200	10	180
JAN 2003 15...	65.8	480	6	<.020	6.73	<.200	.75	.897	7.2	4.2	<200	10	180
MAR 31...	41.6	474	2	<.020	3.50	<.200	.48	.512	4.1	4.8	<200	<10	170
MAY 08...	40.1	410	12	.140	3.17	<.040	.68	.827	4.3	7.4	1100	10	1010
JUL 02...	60.7	460	10	.020	5.87	<.200	.84	.917	6.1	4.3	<200	<10	210
SEP 04...	43.9	404	6	.040	5.25	<.200	.86	.957	5.7	5.7	300	20	300

Date	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)
NOV 2002 26...	<1.0	20	<50	20
JAN 2003 15...	<1.0	40	<50	<10
MAR 31...	<1.0	40	<50	60
MAY 08...	2.0	90	<50	30
JUL 02...	<1.0	20	<50	150
SEP 04...	1.1	30	<50	20

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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  $\mu$ m. Samples represent counts per 100 (approximate) subsamples.

Date	09/03/02
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	18
Nemertea (PROBOSAS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
<u>Prostoma</u> sp	1
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
<u>Sphaerium</u> sp	2
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	2
Hirudinea (LEECHES)	
Arhynchobdellida	
Erpobdellidae	3
Arthropoda	
Crustacea	
Amphipoda (SCUDS)	
Crangonyctidae	
<u>Crangonyx</u> sp	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<u>Baetis</u> sp	4
Odonata	
Coenagrionidae (DAMSELFLIES)	
<u>Argia</u> sp	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<u>Cheumatopsyche</u> sp	35
<u>Hydropsyche</u> sp	27
Hydroptilidae	
<u>Hydroptila</u> sp	1
Philopotamidae	
<u>Chimarra</u> sp	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<u>Stenelmis</u> sp	61
Psephenidae (WATER PENNIES)	
<u>Psephenus</u> sp	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	42
Tipulidae (CRANE FLIES)	
<u>Tipula</u> sp	1
Total Organisms	201