

SCHUYLKILL RIVER BASIN

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°00'55", long 75°12'26", Philadelphia County, Hydrologic Unit 02040203, on left bank 100 ft upstream from dam at Ridge Avenue, 750 ft upstream from mouth, and 1,000 ft northwest of Gustine Lake in Philadelphia.

DRAINAGE AREA.--64.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1897 to September 1903, January 1905 to July 1906, October 1965 to current year. Prior to October 1965, records furnished by Department of Public Works, City of Philadelphia. Records for 1971-74 published in WDR PA-81-1. Prior to October 1965, published as "near Philadelphia".

REVISED RECORDS.--WSP 1302: 1905: WDR PA-89-1: 1988.

GAGE.--Water-stage recorder, crest-stage gage and concrete control. Datum of gage is 26.41 ft above National Geodetic Vertical Datum of 1929. Prior to October 1965, water-stage recorder at about same site and datum.

REMARKS.--No estimated daily discharges. Records fair. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Feb. 22	2200	*2,900	*5.38	June 20	2300	2,820	5.32
June 4	1500	2,020	4.65	Aug. 10	0030	2,340	4.92

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	26	56	55	537	54	68	90	68	192	81	117	48
2	24	52	55	356	55	560	94	77	96	76	137	117
3	22	47	53	182	54	416	78	89	70	78	63	97
4	25	48	51	208	65	139	75	67	940	74	119	116
5	27	44	56	127	71	333	78	66	471	73	530	79
6	23	119	57	126	53	787	72	80	172	74	280	51
7	23	54	53	110	56	265	78	67	319	100	90	49
8	21	47	53	100	54	184	103	209	291	130	158	47
9	21	49	56	109	52	437	185	77	155	69	409	44
10	38	47	50	91	54	253	149	70	122	74	596	43
11	284	52	333	81	53	143	276	65	107	72	202	43
12	125	193	528	74	52	137	296	64	123	76	98	42
13	49	228	210	73	50	184	161	60	321	71	67	146
14	38	65	628	69	49	183	126	58	553	60	59	192
15	33	52	171	66	50	130	111	58	280	59	53	287
16	88	69	111	63	47	138	105	60	138	57	52	380
17	108	578	87	64	42	155	95	81	113	55	52	86
18	46	393	74	58	71	138	91	62	380	60	48	79
19	39	104	70	61	56	123	89	58	158	77	46	559
20	36	74	274	61	57	372	84	55	1030	60	46	113
21	32	65	156	58	65	735	81	66	1020	57	45	83
22	29	109	87	56	1110	197	85	60	275	250	44	72
23	28	103	77	55	1310	141	80	58	203	73	47	518
24	23	64	68	55	414	117	76	69	166	224	46	141
25	27	59	379	55	181	99	69	65	142	69	44	86
26	225	57	209	54	109	105	127	755	125	60	37	76
27	54	76	124	54	80	137	87	162	113	57	48	76
28	43	67	99	52	73	87	75	94	106	55	55	253
29	50	57	88	55	---	104	72	85	98	53	42	97
30	213	56	83	54	---	120	70	72	90	52	207	73
31	207	---	85	53	---	127	---	79	---	52	106	---
TOTAL	2027	3084	4480	3217	4437	7114	3258	3056	8369	2478	3943	4093
MEAN	65.4	103	145	104	158	229	109	98.6	279	79.9	127	136
MAX	284	578	628	537	1310	787	296	755	1030	250	596	559
MIN	21	44	50	52	42	68	69	55	70	52	37	42
CFSM	1.02	1.61	2.26	1.62	2.48	3.59	1.70	1.54	4.36	1.25	1.99	2.13
IN.	1.18	1.79	2.60	1.87	2.58	4.14	1.89	1.78	4.86	1.44	2.29	2.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2003, BY WATER YEAR (WY)

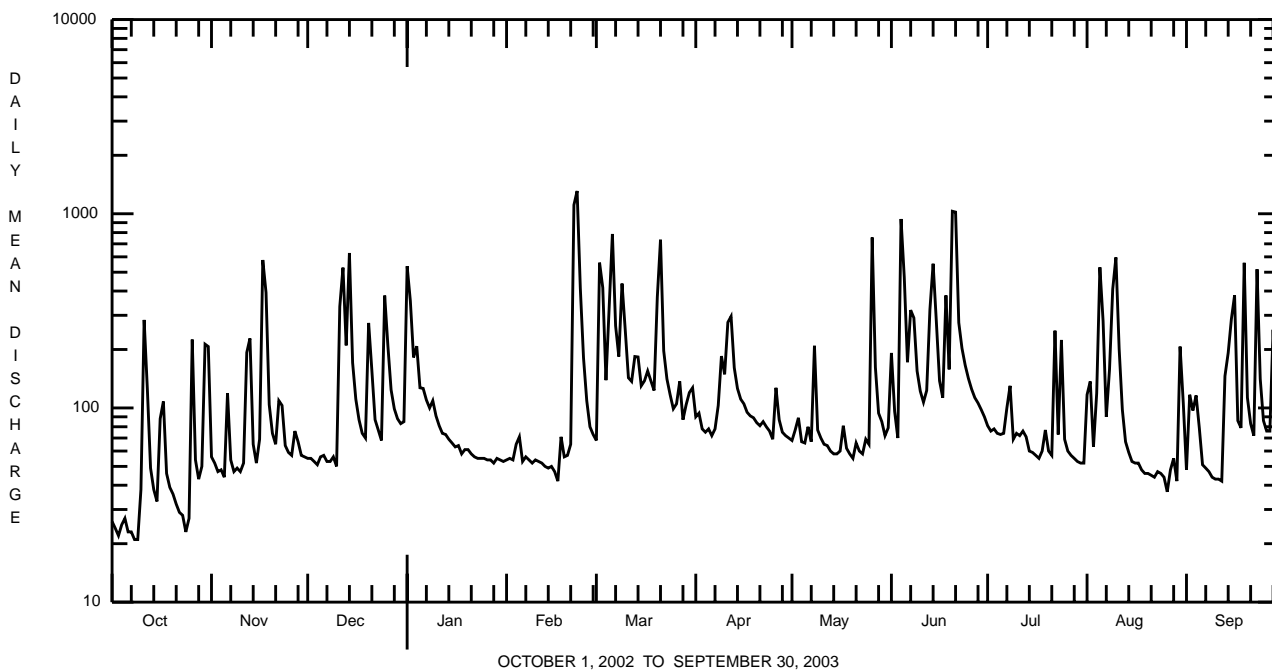
MEAN	68.1	85.6	113	118	122	154	136	115	97.6	79.7	74.9	84.3
MAX	216	265	398	378	266	370	410	229	306	230	171	365
(WY)	1997	1973	1997	1979	1979	1994	1983	1984	2001	1975	1973	1999
MIN	23.1	17.7	22.7	24.3	37.0	40.7	41.3	50.8	32.0	23.7	19.8	23.0
(WY)	1966	1966	1966	1981	1969	1985	1985	1986	1986	1999	1966	1968

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1966 - 2003	
ANNUAL TOTAL	26435		49556			
ANNUAL MEAN	72.4		136		104	
HIGHEST ANNUAL MEAN					169	1996
LOWEST ANNUAL MEAN					50.6	1966
HIGHEST DAILY MEAN	847	May 18	1310	Feb 23	5560	Sep 16 1999
LOWEST DAILY MEAN	16	Aug 15, 16 ^a	21	Oct 8, 9	8.8	Aug 30 1995
ANNUAL SEVEN-DAY MINIMUM	17	Aug 14	23	Oct 3	12	Aug 27 1966
MAXIMUM PEAK FLOW			2900	Feb 22	b19800	Sep 16 1999
MAXIMUM PEAK STAGE			5.38	Feb 22	c11.50	Sep 16 1999
INSTANTANEOUS LOW FLOW			18	Oct 24	2.0	Jul 18 1905 ^d
ANNUAL RUNOFF (CFSM)	1.13		2.12		1.62	
ANNUAL RUNOFF (INCHES)	15.37		28.80		22.06	
10 PERCENT EXCEEDS	132		285		180	
50 PERCENT EXCEEDS	48		76		60	
90 PERCENT EXCEEDS	23		47		28	

- a Also Aug. 20, 23.
- b From rating curve extended above 4,000 ft³/s on basis of slope-area measurement at peak flow.
- c From floodmark. Maximum recorded 10.77 ft.
- d Also July 19. Minimum observed is outside computed statistical period.



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(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 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 µS/cm (00095)	Temperature, water, 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, wat unfltrd fixed end pt, lab, mg/L as CaCO3 (00417)
NOV 2002 21...	1320	1028	9813	64	30	12.4	7.9	545	7.9	180	40.8	18.0	112
JAN 2003 28...	1140	1028	9813	52	30	16.4	8.1	741	.2	210	47.5	21.9	110
MAR 13...	1110	1028	9813	152	30	14.4	7.9	654	6.7	160	37.9	15.2	75
MAY 22...	1200	1028	9813	63	30	7.4	7.5	525	14.8	190	44.0	20.5	114
JUL 15...	1340	1028	9813	61	30	10.2	8.2	628	21.6	200	45.6	21.8	112
SEP 03...	1320	1028	9813	128	30	9.3	7.9	545	19.3	140	33.3	14.4	94

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, 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 21...	47.3	160	<2	.030	4.33	<.040	.44	.447	4.6	4.1	<200	<10	130
JAN 2003 28...	65.4	538	2	.030	7.04	<.200	.69	.747	7.6	3.7	<200	10	150
MAR 13...	42.4	676	12	.020	3.73	<.200	.28	.332	4.4	3.9	<200	<10	210
MAY 22...	53.6	502	2	.050	5.11	<.200	.80	.988	6.3	4.6	<200	<10	320
JUL 15...	46.4	400	<2	.030	4.65	<.200	.57	.708	5.0	3.7	<200	<10	110
SEP 03...	57.1	402	2	.050	3.43	<.200	.60	.698	4.0	4.4	200	20	340

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 21...	<1.0	20	<50	20
JAN 2003 28...	<1.0	20	<50	<10
MAR 13...	<1.0	40	<50	50
MAY 22...	1.6	40	<50	30
JUL 15...	<1.0	10	<50	20
SEP 03...	1.5	30	<50	170

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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 µm. Samples represent counts per 100 (approximate) subsamples.

Date	8/15/02
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	5
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
<u>Ferrissia</u> sp	2
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
<u>Sphaerium</u> sp	1
Arthropoda	
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
<u>Gammarus</u> sp	28
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<u>Baetis</u> sp	15
Hemiptera (TRUE BUGS)	
Veliidae	
<u>Microvelia</u> sp	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<u>Cheumatopsyche</u> sp	1
<u>Hydropsyche</u> sp	31
Hydroptilidae	
<u>Hydroptila</u> sp	2
Lepidoptera (MOTHS AND BUTTERFLIES)	
Pyralidae	
<u>Petrophila</u> sp	2
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<u>Optioservus</u> sp	1
<u>Stenelmis</u> sp	10
Psephenidae (WATER PENNIES)	
<u>Psephenus</u> sp	2
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	19
Empididae (DANCE FLIES)	
<u>Hemerodromia</u> sp	2
Total Organisms	122