

SCHUYLKILL RIVER BASIN

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA
(National Water-Quality Assessment Station)

LOCATION.--Lat 39°58'04", long 75°11'20", Philadelphia County, Hydrologic Unit 02040203, on right bank 150 ft upstream from Fairmount Dam, 1,500 ft upstream from bridge on Spring Garden Street in Philadelphia, and 8.7 mi upstream from mouth.

DRAINAGE AREA.--1,893 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1931 to current year. Records for January 1898 to December 1912, published in WSP 35, 48, 65, 82, 97, 125, 166, 202, 214, 261, 301, and 381 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1936(M). WSP 1432: 1945. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 5.74 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 25, 1956, water-stage recorder at site on right bank just upstream from Fairmount Dam at same datum. Nov. 26, 1956, to Oct. 6, 1966, water-stage recorder at site on left bank 40 ft upstream from Fairmount Dam at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Still Creek Reservoir (station 01469200) since February 1933, Blue Marsh Lake (station 01470870) since April 1979, Green Lane Reservoir (station 01472200) since December 1956 and to some extent by Lake Ontelaunee. Daily mean discharges do not include diversion above station by city of Philadelphia for municipal water supply. Satellite and landline telemetry at station.

COOPERATION.--Records of diversion provided by Philadelphia Water Department.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 4, 1869 reached a stage of 17.0 ft, discharge, about 135,000 ft³/s. Flood of Mar. 1, 1902 reached a stage of 14.8 ft, discharge, about 98,000 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 18,000 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Nov. 17	1100	18,400	8.44	June 4	1700	32,800	9.87
Dec. 14	1200	18,900	8.50	June 21	0830	*52,500	*11.43
Feb. 23	0500	21,500	8.77	Sept. 16	0030	35,500	10.11
Mar. 21	1330	20,800	8.70	Sept. 23	2000	29,200	9.54

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	972	4150	2430	6070	1420	3000	5620	2290	6490	3630	1950	1390
2	754	3350	2290	12900	1490	5000	5280	2140	11300	3090	2300	3310
3	631	2780	2040	11400	1440	10600	4910	2040	7840	2910	1960	3570
4	552	2460	1730	11700	1490	6640	4350	2010	19200	2670	3800	3520
5	835	2140	1660	8790	1970	5830	4050	1940	17600	2480	4580	3890
6	701	2560	1670	7410	2010	12100	4030	1940	10300	2510	10300	2400
7	663	2980	1600	6240	1640	9180	3780	1870	8450	2390	5940	1830
8	533	2320	1610	5170	1550	5890	3940	2340	13400	2440	4540	1600
9	547	1860	1610	5120	1350	7430	4510	2060	9560	2380	4190	1410
10	638	1750	1470	4870	1320	9530	6430	1930	7770	2090	7830	1280
11	2590	1740	2750	4720	1300	6010	6450	1830	6450	2110	5550	1120
12	7780	2280	13700	4110	1220	4890	9720	1770	5540	2090	4350	1030
13	5760	5430	11300	3680	1070	5240	7490	1670	6720	2020	4310	1380
14	3600	3610	16300	3260	950	6500	6030	1570	11600	1770	3590	2900
15	2430	2710	12800	2920	1080	6500	5430	1480	7390	1590	3580	14500
16	2670	2580	9780	2590	1010	6380	5000	1470	5580	1430	2820	20100
17	8800	13000	7580	2420	657	7420	4570	1630	4470	1350	2790	7340
18	7190	12800	6160	2160	370	7770	4180	1610	4810	1290	2660	5270
19	4790	8650	5080	1940	1020	7700	3810	1530	4710	1420	2170	10200
20	3690	6570	7540	2040	1600	8050	3410	1420	9810	1630	1930	6160
21	3180	5280	10400	1950	2370	19400	3230	1520	41200	1490	1720	4200
22	2430	4690	6220	1680	7140	15900	3260	1610	20800	5310	1510	3500
23	1740	4910	5270	1420	20700	11900	3210	1470	14300	12700	1470	14000
24	1470	4180	4670	1160	15000	9470	2890	1460	11100	7550	1470	19300
25	1300	3600	6520	1270	8270	6880	2520	1690	9150	7540	1320	10300
26	2470	3170	9300	1480	5710	5450	2640	8060	7720	4730	1180	7250
27	3560	3120	6130	1510	4310	5580	3120	7340	6740	3600	1160	5910
28	2580	3190	4830	1230	3410	4950	2920	4520	5370	3130	1270	6550
29	2160	2850	4330	1260	---	4370	2460	4020	4580	2780	1090	6070
30	3520	2530	4180	1380	---	6290	2400	3700	4270	2180	1460	4480
31	6060	---	3940	1400	---	6980	---	3120	---	1880	1490	---
TOTAL	86596	123240	176890	125250	92867	238830	131640	75050	304220	96180	96280	175760
MEAN	2793	4108	5706	4040	3317	7704	4388	2421	10140	3103	3106	5859
MAX	8800	13000	16300	12900	20700	19400	9720	8060	41200	12700	10300	20100
MIN	533	1740	1470	1160	370	3000	2400	1420	4270	1290	1090	1030
(†)	197	194	200	206	218	205	188	195	200	218	217	202

† Diversion for municipal supply of City of Philadelphia, equivalent in cubic feet per second.

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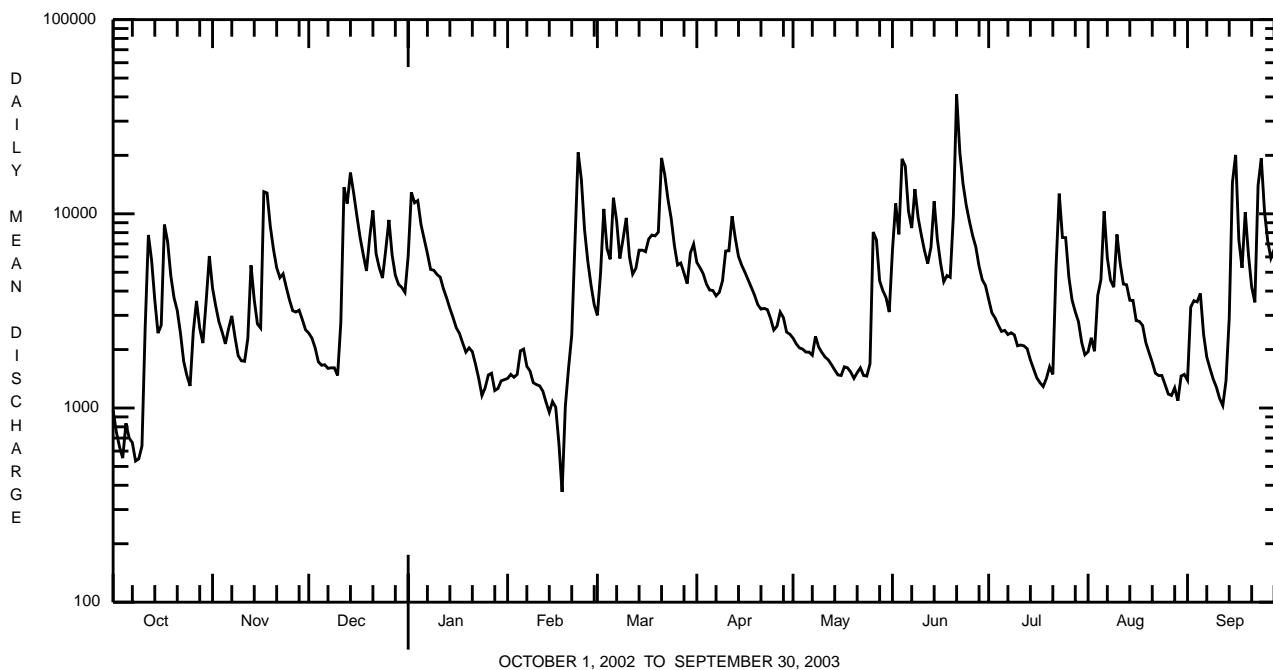
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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2003, BY WATER YEAR (WY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1417	2310	3180	3341	3606	4884	4234	3117	2226	1628	1389	1487
MAX	5624	6272	11150	11400	8136	13320	11620	9943	11640	6434	7980	5859
(WY)	1997	1973	1997	1979	1939	1936	1983	1989	1972	1984	1933	2003
MIN	89.4	223	444	340	647	1552	1237	693	261	116	140	117
(WY)	1942	1932	1981	1981	1934	1981	1985	1965	1965	1966	1966	1932

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1932 - 2003	
ANNUAL TOTAL	827607		1722803			
ANNUAL MEAN	2267		4720		2730	
HIGHEST ANNUAL MEAN					4791	
LOWEST ANNUAL MEAN					1014	
HIGHEST DAILY MEAN	18400	May 14	41200	Jun 21	93400	Jun 23 1972
LOWEST DAILY MEAN	79	Aug 17	370	Feb 18	0.60	Sep 2 1966
ANNUAL SEVEN-DAY MINIMUM	134	Aug 12	637	Oct 3	24	Sep 28 1941
MAXIMUM PEAK FLOW			52500	Jun 21	a103000	Jun 23 1972
MAXIMUM PEAK STAGE			11.43	Jun 21	14.65	Jun 23 1972
INSTANTANEOUS LOW FLOW			146	Feb 18	0.00	Sep 2 1966 ^b
10 PERCENT EXCEEDS	4980		9790		5880	
50 PERCENT EXCEEDS	1500		3500		1670	
90 PERCENT EXCEEDS	302		1370		440	

a From rating curve extended above 92,000 ft³/s.
 b No flow over dam at times.



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(National Water-Quality Assessment Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1998, revised, to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: September 1998 to April 1999, July 1999 to September 1999.

WATER TEMPERATURE: September 1998 to September 2001.

REMARKS.--These samples were collected as part of the Delaware River Basin National Water-Quality Assessment Program (NAWQA). For the definition of the type of quality-control data listed under SAMPLE TYPE refer to "Water-Quality-Control Data" in the "Introduction."

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat fltr inc tit field, mg/L as CaCO3 (39086)
NOV 21...	1000	Environmental	5,380	760	12.2	103	7.7	294	7.5	7.9	63
DEC 18...	1119	Field Blank	--	--	--	--	--	--	--	--	--
DEC 18...	1120	Environmental	6,340	773	14.1	105	7.6	294	3.0	3.6	53
JAN 16...	1110	Environmental	2,700	767	14.4	102	7.7	375	0.0	1.4	66
MAR 12...	1130	Environmental	4,900	762	13.6	103	7.7	342	9.5	3.7	55
APR 23...	1150	Environmental	3,300	757	10.3	100	8.1	345	19.0	13.4	65
MAY 15...	1120	Environmental	1,570	764	10.1	102	7.7	437	18.0	15.9	76
JUN 05...	1200	Environmental	16,700	755	10.0	98	7.3	210	22.0	13.9	42
JUL 15...	1040	Environmental	1,730	763	9.3	112	8.0	425	27.5	24.4	73
SEP 03...	1130	Environmental	3,560	757	9.1	104	7.8	405	22.5	21.2	77

Date	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Suspended sediment concentration mg/L (80154)	Suspended sediment load, tons/d (80155)
NOV 21...	20.5	32.0	0.54	0.08	3.89	0.026	0.08	0.125	8	118
DEC 18...	<0.20	<0.2	<0.10	<0.04	<0.06	<0.008	<0.02	<0.004	<1	--
DEC 18...	26.0	28.5	0.47	0.14	3.81	0.029	0.07	0.110	6	103
JAN 16...	35.9	40.6	0.51	0.27	4.19	0.085	0.10	0.145	3	21
MAR 12...	40.1	29.6	0.64	0.26	2.81	0.037	0.09	0.141	8	103
APR 23...	32.4	40.8	--	--	--	--	--	--	125	1,110
MAY 15...	41.1	52.7	0.71	0.05	3.09	0.082	0.17	0.28	10	42
JUN 05...	17.4	19.5	--	--	--	--	--	--	107	4,840
JUL 15...	36.4	56.8	0.43	<0.04	3.40	0.031	0.15	0.21	5	22
SEP 03...	36.6	66.0	0.56	0.07	2.42	0.027	0.15	0.22	10	100

Remark codes used in this table:

< -- Less than

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WATER-COLUMN PESTICIDE ANALYSES

REMARKS.--The following were determined using laboratory schedule 2001 (listed in its entirety, with laboratory reporting levels, on page 197). Only pesticides detected in one or more surface-water sample are listed in the following table.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Sample type	2,6-Di-ethyl-aniline water fltrd 0.7µ GF (82660)	CIAT, water, fltrd, µg/L (04040)	Aceto-chlor, water, fltrd, µg/L (49260)	Ala-chlor, water, fltrd, µg/L (46342)	alpha-HCH, water, fltrd, µg/L (34253)	Atra-zine, water, fltrd, µg/L (39632)	Azin-phos-methyl, water, fltrd 0.7µ GF (82686)	Ben-flur-alin, water, fltrd 0.7µ GF (82673)	Butyl-ate, water, fltrd, µg/L (04028)
NOV 21...	1000	Environmental	<0.006	E.030	<0.006	<0.004	<0.005	0.049	<0.050	<0.010	<0.002
JAN 16...	1110	Environmental	<0.006	E.032	<0.006	<0.004	<0.005	0.025	<0.050	<0.010	<0.002
MAR 12...	1130	Environmental	<0.006	E.035	<0.006	<0.004	<0.005	0.024	<0.050	<0.010	<0.002
APR 23...	1150	Environmental	<0.006	E.038	<0.006	<0.004	<0.005	0.031	<0.050	<0.010	<0.002
MAY 15...	1120	Environmental	<0.006	E.035	<0.006	<0.004	<0.005	0.042	<0.050	<0.010	<0.002
MAY 15...	1121	Split Replicate	<0.006	E.035	<0.006	<0.004	<0.005	0.041	<0.050	<0.010	<0.002
JUN 05...	1200	Environmental	<0.006	E.093	0.047	0.008	<0.005	0.865	<0.050	<0.010	<0.002
JUL 15...	1040	Environmental	<0.006	E.038	0.015	<0.004	<0.005	0.129	<0.050	<0.010	<0.002
SEP 03...	1130	Environmental	<0.006	E.036	<0.006	<0.004	<0.005	0.054	<0.050	<0.010	<0.002

Date	Car-baryl, water, fltrd 0.7µ GF (82680)	Carbo-furan, water, fltrd 0.7µ GF (82674)	cis-Per-methrin water fltrd 0.7µ GF (82687)	DCPA, water fltrd 0.7µ GF (82682)	Desulf-inyl fipro-nil, water, fltrd, µg/L (62170)	Diazi-non, water, fltrd, µg/L (39572)	Diel-drin, water, fltrd, µg/L (39381)	EPTC, water, fltrd 0.7µ GF (82668)	Desulf-inyl-fipro-nil amide, wat flt µg/L (62169)	Fipro-nil sulfide water, fltrd, µg/L (62167)	Fipro-nil sulfone water, fltrd, µg/L (62168)	Fipro-nil, water, fltrd, µg/L (62166)	Malathion, water, fltrd, µg/L (39532)
NOV 21...	<0.041	<0.020	<0.006	<0.003	<0.004	<0.005	<0.005	<0.002	<0.009	<0.005	<0.005	E.005	<0.027
JAN 16...	<0.041	<0.020	<0.006	<0.003	<0.004	<0.005	<0.005	<0.002	<0.009	<0.005	<0.005	<0.007	<0.027
MAR 12...	<0.041	<0.020	<0.006	<0.003	<0.004	<0.005	<0.005	<0.002	<0.009	<0.005	<0.005	<0.007	<0.027
APR 23...	E.008	<0.020	<0.006	<0.003	<0.004	<0.005	<0.005	<0.002	<0.009	<0.005	<0.005	E.005	<0.027
MAY 15...	<0.041	<0.020	<0.006	<0.003	<0.004	0.007	<0.005	<0.002	<0.009	<0.005	<0.005	E.007	<0.027
MAY 15...	E.008	<0.020	<0.006	<0.003	<0.004	0.006	<0.005	<0.002	<0.009	<0.005	<0.005	E.007	<0.027
JUN 05...	E.023	<0.020	<0.006	<0.003	<0.004	0.012	<0.005	<0.002	<0.009	<0.005	<0.005	E.005	<0.027
JUL 15...	E.006	<0.020	<0.006	<0.003	<0.004	<0.005	<0.005	<0.002	<0.009	<0.005	<0.005	<0.007	<0.027
SEP 03...	E.009	<0.020	<0.006	<0.003	<0.004	0.006	<0.005	<0.002	<0.009	<0.005	<0.005	E.007	<0.027

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Metolachlor, water, fltrd, µg/L (39415)	Metribuzin, water, fltrd, µg/L (82630)	Napropamide, water, fltrd 0.7µ GF µg/L (82684)	Pendimethalin, water, fltrd 0.7µ GF µg/L (82683)	Prometon, water, fltrd, µg/L (04037)	Simazine, water, fltrd, µg/L (04035)	Tebu-thiuron water fltrd 0.7µ GF µg/L (82670)	Terbacil, water, fltrd 0.7µ GF µg/L (82665)	Tri-fluralin, water, fltrd 0.7µ GF µg/L (82661)
NOV 21...	0.049	<0.006	<0.007	<0.022	E.01	0.014	E.01	<0.034	<0.009
JAN 16...	0.016	<0.006	<0.007	<0.022	E.01	<0.010	<0.02	<0.034	<0.009
MAR 12...	0.020	<0.006	<0.007	<0.022	<0.01	0.020	<0.02	<0.034	<0.009
APR 23...	0.015	<0.006	<0.007	<0.022	E.01	0.027	<0.02	<0.034	<0.009
MAY 15...	0.021	<0.006	<0.007	<0.022	E.01	0.017	E.01	<0.034	<0.009
15...	0.021	<0.006	<0.007	<0.022	E.01	0.017	<0.02	<0.034	<0.009
JUN 05...	0.489	<0.006	<0.007	E.012	0.01	0.054	E.01	<0.034	<0.009
JUL 15...	0.038	<0.006	<0.007	<0.022	0.03	0.024	E.01	<0.034	<0.009
SEP 03...	0.021	<0.006	<0.007	<0.022	0.03	0.028	E.01	<0.034	<0.009

Remark codes used in this table:

< -- Less than

E -- Estimated value