

## SCHUYLKILL RIVER BASIN

## 01471510 SCHUYLKILL RIVER AT READING, PA

**LOCATION.**--Lat 40°20'05", long 75°56'12", Berks County, Hydrologic Unit 02040203, on left bank 200 ft downstream from bridge on Penn Street at Reading, and 1.0 mi downstream from Tulpehocken Creek.

**DRAINAGE AREA.**--880 mi<sup>2</sup>.

**PERIOD OF RECORD.**--May 1914 to September 1915, October 1919 to September 1930, and July 1977 to current year. Prior to October 1914 monthly discharge only, published in WSP 1302. Diversion by Schuylkill Navigation Canal included during the navigation seasons of 1914-15.

**REVISED RECORD.**--WDR PA-78-1: 1977.

**GAGE.**--Water-stage recorder and crest-stage gage. Datum of gage is 185.50 ft above National Geodetic Vertical Datum of 1929 (Pennsylvania Railroad datum). May 7, 1914, to Sept. 30, 1930, and July 6, 1979, to Dec. 5, 1980, nonrecording gage. June 30, 1977, to July 5, 1979, water-stage recorder at site 1,500 ft downstream on right bank at same datum.

**REMARKS.**--Records fair except those for estimated daily discharges, which are poor. Flow regulated by Still Creek Reservoir (station 01469200) since February 1933, Blue Marsh Lake (station 01470870) since April 1979, and to some extent by Lake Ontelaunee. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Flood of June 23, 1972, reached a stage of about 31.3 ft at site 1,500 ft downstream, from floodmarks, discharge, about 90,000 ft<sup>3</sup>/s.

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     | 453   | 2150  | 1530  | 2510  | e950  | 1510   | 3360  | 1400  | 6400   | 1930  | 1280  | 924   |
| 2     | 398   | 1880  | 1360  | 5990  | e980  | 1780   | 3280  | 1360  | 6600   | 1780  | 1400  | 1320  |
| 3     | 362   | 1730  | 1130  | 6170  | e1000 | 3430   | 2960  | 1360  | 5070   | 1660  | 1260  | 1440  |
| 4     | 420   | 1500  | 994   | 5280  | 1200  | 2690   | 2690  | 1280  | 6390   | 1500  | 1380  | 1640  |
| 5     | 404   | 1260  | 1030  | 4480  | 1670  | 2060   | 2650  | 1230  | 6230   | 1430  | 2900  | 1360  |
| 6     | 401   | 1580  | 1070  | 3770  | 1230  | 3210   | 2510  | 1190  | 5000   | 1360  | 3450  | 1100  |
| 7     | 378   | 1570  | 1030  | 3040  | 1120  | 3100   | 2370  | 1200  | 4810   | 1320  | 3160  | 969   |
| 8     | 429   | 1320  | 989   | 2700  | 1020  | 2440   | 2340  | 1300  | 6420   | 1500  | 2450  | 886   |
| 9     | 402   | 1250  | 971   | 2690  | 907   | 2820   | 2400  | 1230  | 5390   | 1300  | 2130  | 821   |
| 10    | 433   | 1200  | 873   | 2870  | 973   | 3430   | 2640  | 1170  | 4660   | 1290  | 2020  | 740   |
| 11    | 1500  | 1190  | 1230  | 2750  | 906   | 2820   | 3250  | 1130  | 3880   | 1270  | 2000  | 724   |
| 12    | 4340  | e1600 | 4860  | 2510  | 824   | 2350   | 4480  | 1110  | 3880   | 1230  | 2970  | 711   |
| 13    | 2760  | e2000 | 4850  | 2270  | 757   | 2380   | 4050  | 1070  | 6250   | 1120  | 2270  | 768   |
| 14    | 1880  | 1630  | 6220  | 2040  | 756   | 3740   | 3720  | 994   | 5020   | 1010  | 2620  | 1170  |
| 15    | 1570  | 1510  | 6670  | e1850 | 743   | 3470   | 3570  | 955   | 3970   | 902   | 2070  | 2240  |
| 16    | 2980  | 1770  | 5440  | e1600 | 664   | 3630   | 3300  | 953   | 3130   | 870   | 1830  | 4110  |
| 17    | 6300  | e5000 | 4470  | e1550 | e750  | 4180   | 3050  | 1020  | 2470   | 863   | 1780  | 3610  |
| 18    | 4070  | e5600 | 3650  | e1400 | e900  | 5020   | 2650  | 1000  | 2600   | e851  | 1580  | 2610  |
| 19    | 2970  | e4500 | 2920  | e1350 | e1000 | 5120   | 2330  | 956   | 2500   | 1170  | 1440  | 2600  |
| 20    | 2530  | 3860  | 3290  | e1200 | 1510  | 4910   | 2190  | 899   | 3670   | 992   | 1280  | 2370  |
| 21    | 1950  | 3110  | 3780  | e1250 | 1460  | 10300  | 2090  | 959   | 14400  | 957   | 1160  | 2030  |
| 22    | 1310  | 2830  | 3220  | e1100 | 1520  | 9060   | 1870  | 933   | 9700   | 6280  | 1120  | 1730  |
| 23    | 1090  | 2800  | 3030  | e1000 | 4090  | 7140   | 1760  | 882   | 7680   | 5180  | 1080  | 9270  |
| 24    | 997   | 2430  | 2830  | e900  | 4220  | 5410   | 1560  | 981   | 6710   | 6520  | 971   | 9070  |
| 25    | 1010  | 2170  | 3100  | e800  | 3270  | 3810   | 1420  | 1150  | 5680   | 4370  | 904   | 5430  |
| 26    | 1740  | 1940  | 3090  | e850  | 2480  | 3290   | 1600  | 2060  | 5070   | 2950  | 861   | 4330  |
| 27    | 1750  | 1940  | 2600  | e800  | 1880  | 3290   | 1810  | 2680  | 4090   | 2460  | 893   | 3450  |
| 28    | 1480  | 1820  | 2330  | e800  | 1620  | 2830   | 1540  | 2520  | 3150   | 2210  | 846   | 3360  |
| 29    | 1450  | 1680  | 2220  | e750  | ---   | 2860   | 1500  | 2570  | 2880   | 1710  | 792   | 2940  |
| 30    | e2100 | 1600  | 2070  | e750  | ---   | 3470   | 1490  | 2220  | 2400   | 1470  | 903   | 2370  |
| 31    | e2600 | ---   | 1930  | e900  | ---   | 3590   | ---   | 1960  | ---    | 1330  | 983   | ---   |
| TOTAL | 52457 | 66420 | 84777 | 67920 | 40400 | 119140 | 76430 | 41722 | 156100 | 60785 | 51783 | 76093 |
| MEAN  | 1692  | 2214  | 2735  | 2191  | 1443  | 3843   | 2548  | 1346  | 5203   | 1961  | 1670  | 2536  |
| MAX   | 6300  | 5600  | 6670  | 6170  | 4220  | 10300  | 4480  | 2680  | 14400  | 6520  | 3450  | 9270  |
| MIN   | 362   | 1190  | 873   | 750   | 664   | 1510   | 1420  | 882   | 2400   | 851   | 792   | 711   |

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2003, BY WATER YEAR (WY)

|      | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| MEAN | 1054 | 1433 | 2000 | 1895 | 1893 | 2673 | 2401 | 1964 | 1462 | 953  | 728  | 828  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| MAX  | 3390 | 2791 | 5763 | 5682 | 3358 | 6484 | 6472 | 5493 | 5203 | 2907 | 1670 | 2705 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| (WY) | 1980 | 1997 | 1997 | 1979 | 1984 | 1994 | 1983 | 1989 | 2003 | 1984 | 2003 | 1987 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| MIN  | 322  | 352  | 278  | 265  | 609  | 824  | 606  | 724  | 415  | 330  | 257  | 273  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| (WY) | 1981 | 2002 | 1981 | 1981 | 2002 | 1985 | 1985 | 1999 | 1999 | 1999 | 2002 | 1983 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |

e Estimated.

## SCHUYLKILL RIVER BASIN

## 01471510 SCHUYLKILL RIVER AT READING, PA--Continued

| SUMMARY STATISTICS       | FOR 2002 CALENDAR YEAR |        |  | FOR 2003 WATER YEAR |        | WATER YEARS 1977 - 2003 |             |
|--------------------------|------------------------|--------|--|---------------------|--------|-------------------------|-------------|
| ANNUAL TOTAL             | 455883                 |        |  | 894027              |        |                         |             |
| ANNUAL MEAN              | 1249                   |        |  | 2449                |        | 1608                    |             |
| HIGHEST ANNUAL MEAN      |                        |        |  |                     |        | 2559                    |             |
| LOWEST ANNUAL MEAN       |                        |        |  |                     |        | 803                     |             |
| HIGHEST DAILY MEAN       | 6670                   | Dec 15 |  | 14400               | Jun 21 | 24700                   | Jan 25 1979 |
| LOWEST DAILY MEAN        | 226                    | Aug 22 |  | 362                 | Oct 3  | 180                     | Oct 1 1980  |
| ANNUAL SEVEN-DAY MINIMUM | 235                    | Aug 8  |  | 399                 | Oct 2  | 224                     | Dec 24 1980 |
| MAXIMUM PEAK FLOW        |                        |        |  | 17500               |        | a37500                  |             |
| MAXIMUM PEAK STAGE       |                        |        |  | 11.56               |        | b17.50                  |             |
| 10 PERCENT EXCEEDS       | 2870                   |        |  | 5000                |        | 3310                    |             |
| 50 PERCENT EXCEEDS       | 873                    |        |  | 1880                |        | 1080                    |             |
| 90 PERCENT EXCEEDS       | 269                    |        |  | 890                 |        | 398                     |             |

**a** From rating curve extended above 31,000 ft<sup>3</sup>/s, gage height 17.36 ft, at site 150 ft downstream.

**b** Discharge, 33,100 ft<sup>3</sup>/s, from rating curve extended above 31,000 ft<sup>3</sup>/s.

