

SUSQUEHANNA RIVER BASIN

01576000 SUSQUEHANNA RIVER AT MARIETTA, PA

LOCATION.--Lat 40°03'16", long 76°31'52", Lancaster County, Hydrologic Unit 02050306, on left bank 420 ft upstream from Chickies Creek, and 1.0 mi downstream from Marietta. Records include flow of Chickies Creek.

DRAINAGE AREA.--25,990 mi², approximately, includes that of Chickies Creek.

PERIOD OF RECORD.--October 1931 to current year.

REVISED RECORDS.--WSP 781: 1933(M). WSP 1502: 1937.

GAGE.--Water-stage recorder. Datum of gage is 200.56 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow slightly regulated by 16 flood-control reservoirs which have a combined capacity of 1,599,000 acre-ft. Some diurnal fluctuation below 8,000 ft³/s caused by hydroelectric plant 9.7 mi upstream. Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889, reached a stage of 58.2 ft, from floodmark, discharge, about 630,000 ft³/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 | 18900 | 37600 | 35800 | 39400 | e18500 | 45900 | 96600 | 34400 | 48600 | 30200 | 32200 | 18200 |
| 2 | 17200 | 34800 | 33300 | 72900 | e19600 | 43700 | 92800 | 33300 | 76300 | 27200 | 27900 | 20500 |
| 3 | 17600 | 30500 | 31100 | 135000 | e20400 | 47300 | 88700 | 31500 | 133000 | 25000 | 39400 | 29000 |
| 4 | 15200 | 27800 | 28500 | 162000 | e22300 | 44100 | 88600 | 31900 | 132000 | 23400 | 58600 | 49600 |
| 5 | 12900 | 25100 | e26800 | 129000 | e24200 | 38800 | 90400 | 35200 | 136000 | 21300 | 65400 | 96000 |
| 6 | 10800 | 24200 | e24100 | 98200 | e27400 | 43400 | 88700 | 33800 | 116000 | 19700 | 75600 | 103000 |
| 7 | 9670 | 24400 | e21700 | 78700 | e25200 | 49900 | 120000 | 33200 | 103000 | 19100 | 75400 | 85300 |
| 8 | 8320 | 24400 | e20400 | 67200 | 26300 | 44700 | 135000 | 33100 | 117000 | 18700 | 60500 | 63900 |
| 9 | 7650 | 24700 | e19900 | 61600 | 28000 | 47100 | 117000 | 33500 | 105000 | 18100 | 50500 | 49800 |
| 10 | 7320 | 24400 | e19700 | 60300 | e27100 | 57000 | 103000 | 35500 | 91000 | 17300 | 46400 | 40100 |
| 11 | 10200 | 23900 | e21200 | 59400 | 27500 | 55700 | 95200 | 37400 | 75400 | 17200 | 57100 | 34300 |
| 12 | 15900 | 24600 | e28300 | 56700 | 24400 | 48700 | 106000 | 39900 | 64200 | 18200 | 91400 | 29900 |
| 13 | 33400 | 27900 | e40700 | 51700 | 23400 | 49900 | 110000 | 40700 | 61600 | 21900 | 100000 | 26700 |
| 14 | 55500 | 32600 | e50400 | 45500 | e20300 | 64800 | 100000 | 40600 | 57600 | 22400 | 76000 | 25200 |
| 15 | 36500 | 33500 | e67400 | 41000 | e18700 | 69600 | 87300 | 38700 | 54900 | 20300 | 62300 | 24200 |
| 16 | 27700 | 32000 | 79400 | e34400 | e18600 | 74300 | 75900 | 38000 | 54300 | 18500 | 50100 | 23000 |
| 17 | 33300 | 35100 | 82100 | e32500 | e16200 | 83400 | 67100 | 48600 | 51500 | 16400 | 48100 | 23700 |
| 18 | 53500 | 46500 | 72000 | e23400 | e14900 | 111000 | 59900 | 56300 | 46900 | 15000 | 44800 | 26100 |
| 19 | 53400 | 62400 | 60300 | e23700 | 13900 | 175000 | 54300 | 53000 | 43200 | 14400 | 38300 | 32700 |
| 20 | 42000 | 76200 | 52800 | e23000 | 13700 | 216000 | 50000 | 51000 | 43600 | 13900 | 32000 | 34800 |
| 21 | 37500 | 69800 | 53600 | e21000 | 19800 | 266000 | 45700 | 45800 | 51700 | 13400 | 28200 | 44400 |
| 22 | 32400 | 60700 | 64500 | e20600 | 24600 | 284000 | 43400 | 39800 | 101000 | 15700 | 25000 | 41600 |
| 23 | 27400 | 54700 | 82900 | e19200 | 37700 | 259000 | 42100 | 39100 | 143000 | 19300 | 22600 | 56700 |
| 24 | 24700 | 52900 | 79200 | e17300 | 48600 | 224000 | 39600 | 36800 | 128000 | 30400 | 20600 | 105000 |
| 25 | 22500 | 52700 | 68500 | e16300 | 57800 | 195000 | 37400 | 42700 | 92300 | 58200 | 18600 | 104000 |
| 26 | 22000 | 52900 | 60000 | e16500 | 52800 | 173000 | 36000 | 49300 | 69400 | 58300 | 17600 | 85600 |
| 27 | 23400 | 50400 | 53300 | e17200 | 53400 | 150000 | 36500 | 51300 | 54400 | 53900 | 16600 | 73800 |
| 28 | 27000 | 45800 | 47500 | e19100 | 50600 | 131000 | 36700 | 57900 | 44900 | 43900 | 16200 | 62100 |
| 29 | 28100 | 41900 | 43100 | e17200 | --- | 117000 | 35300 | 58400 | 38700 | 38300 | 15400 | 62600 |
| 30 | 31600 | 38900 | 39300 | e16000 | --- | 105000 | 35000 | 53600 | 33800 | 42400 | 16000 | 82900 |
| 31 | 37100 | --- | 37400 | e19400 | --- | 101000 | --- | 49300 | --- | 38500 | 18400 | --- |
| TOTAL | 800660 | 1193300 | 1445200 | 1495400 | 775900 | 3415300 | 2214200 | 1303600 | 2368300 | 810500 | 1347200 | 1554700 |
| MEAN | 25830 | 39780 | 46620 | 48240 | 27710 | 110200 | 73810 | 42050 | 78940 | 26150 | 43460 | 51820 |
| MAX | 55500 | 76200 | 82900 | 162000 | 57800 | 284000 | 135000 | 58400 | 143000 | 58300 | 100000 | 105000 |
| MIN | 7320 | 23900 | 19700 | 16000 | 13700 | 38800 | 35000 | 31500 | 33800 | 13400 | 15400 | 18200 |
| CFSM | 0.99 | 1.53 | 1.79 | 1.86 | 1.07 | 4.24 | 2.84 | 1.62 | 3.04 | 1.01 | 1.67 | 1.99 |
| IN. | 1.15 | 1.71 | 2.07 | 2.14 | 1.11 | 4.89 | 3.17 | 1.87 | 3.39 | 1.16 | 1.93 | 2.23 |

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

| | | | | | | | | | | | | |
|------|-------|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|
| MEAN | 17620 | 29280 | 39330 | 40030 | 44780 | 76170 | 79230 | 48790 | 29150 | 15840 | 12230 | 13040 |
| MAX | 81330 | 71930 | 114300 | 116900 | 109300 | 229100 | 235100 | 103400 | 190700 | 61480 | 47180 | 78650 |
| (WY) | 1977 | 1978 | 1997 | 1996 | 1984 | 1936 | 1993 | 1989 | 1972 | 1972 | 1994 | 1975 |
| MIN | 2699 | 3041 | 6216 | 6635 | 10730 | 28120 | 22450 | 14240 | 6974 | 3957 | 3627 | 2296 |
| (WY) | 1964 | 1965 | 1999 | 1981 | 1934 | 1960 | 1946 | 1941 | 1999 | 1965 | 1966 | 1964 |

e Estimated.

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01576000 SUSQUEHANNA RIVER AT MARIETTA, PA--Continued

| SUMMARY STATISTICS | FOR 2002 CALENDAR YEAR | | FOR 2003 WATER YEAR | | WATER YEARS 1932 - 2003 | |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|-------------|
| ANNUAL TOTAL | 12169820 | | 18724260 | | | |
| ANNUAL MEAN | 33340 | | 51300 | | 37060 | |
| HIGHEST ANNUAL MEAN | | | | | 59900 | |
| LOWEST ANNUAL MEAN | | | | | 19060 | |
| HIGHEST DAILY MEAN | 190000 | May 15 | 284000 | Mar 22 | 1040000 | Jun 24 1972 |
| LOWEST DAILY MEAN | 2150 | Sep 13 | 7320 | Oct 10 | 1380 | Sep 26 1932 |
| ANNUAL SEVEN-DAY MINIMUM | 2350 | Sep 10 | 9550 | Oct 5 | 1720 | Sep 26 1932 |
| MAXIMUM PEAK FLOW | | | 289000 | Mar 22 | a 1080000 | Jun 23 1972 |
| MAXIMUM PEAK STAGE | | | 48.73 | Mar 22 | b 64.54 | Jun 23 1972 |
| INSTANTANEOUS LOW FLOW | | | 6830 | Oct 10 | 618 | Sep 26 1932 |
| ANNUAL RUNOFF (CFSM) | 1.28 | | 1.97 | | 1.43 | |
| ANNUAL RUNOFF (INCHES) | 17.42 | | 26.80 | | 19.37 | |
| 10 PERCENT EXCEEDS | 67800 | | 100000 | | 84300 | |
| 50 PERCENT EXCEEDS | 27300 | | 40600 | | 22300 | |
| 90 PERCENT EXCEEDS | 3900 | | 18200 | | 6000 | |

a From rating curve extended above 961,000 ft³/s.
b From floodmarks.

