

JUNIATA RIVER BASIN

01559000 JUNIATA RIVER AT HUNTINGDON, PA

LOCATION.--Lat 40°29'05", long 78°01'09", Huntingdon County, Hydrologic Unit 02050302, on right bank 170 ft downstream from Smithfield Bridge on State Highway 26 at Huntingdon, and 0.8 mi upstream from Standing Stone Creek.

DRAINAGE AREA.--816 mi².

PERIOD OF RECORD.--October 1941 to current year. Gage-height records collected in this vicinity for the period May 1895 to December 1938 are contained in reports of U.S. Weather Bureau. Prior to October 1950, published as Frankstown Branch Juniata River at Huntingdon.

REVISED RECORDS.--WDR PA-73-1: 1936(M). WDR PA-80-2: 1972(M). WDR PA-84-2: 1936(M) 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 599.69 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Flow regulated September 1941 to June 1972, and since December 15, 1985 by Warrior Ridge Hydroelectric Plant 4 mi upstream (reservoir capacity 400 acre-ft). Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 21.87 ft, from floodmark, discharge, 81,000 ft³/s, from rating curve extended on basis of computation of peak discharge at dam and runoff comparison with downstream station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 5,500 ft³/s and maximum (*):

| Date | Time | Discharge ft ³ /s | Gage Height (ft) | Date | Time | Discharge ft ³ /s | Gage Height (ft) |
|---------|------|---------------------------------|---------------------|----------|------|---------------------------------|---------------------|
| Jan. 2 | 0915 | *13,500 | *9.46 | June 7 | 2345 | 6,560 | 6.26 |
| Mar. 14 | 0330 | 5,560 | 5.67 | Aug. 3 | 1230 | 5,870 | 5.86 |
| Mar. 18 | 0600 | 6,760 | 6.37 | Aug. 10 | 0915 | 6,070 | 5.98 |
| Mar. 21 | 0500 | 8,620 | 7.32 | Sept. 4 | 0230 | 7,210 | 6.61 |
| May 16 | 2300 | 5,670 | 5.74 | Sept. 23 | 1145 | 5,850 | 5.85 |
| June 4 | 1530 | 9,820 | 7.91 | Sept. 28 | 1100 | 10,600 | 8.30 |

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 | 191 | 800 | 631 | 3160 | 473 | 841 | 1520 | 691 | 2470 | 703 | 862 | e1340 |
| 2 | 227 | 653 | 578 | 12000 | 480 | 784 | 1650 | 728 | 1800 | 664 | 858 | e1890 |
| 3 | 213 | 519 | 539 | 5770 | 459 | e740 | 1540 | 696 | 2070 | 643 | 4240 | 2940 |
| 4 | 205 | 480 | 475 | 3920 | e650 | 731 | 1460 | 647 | 8970 | 596 | 2120 | 4960 |
| 5 | 209 | 459 | e465 | 2890 | 919 | 772 | 3550 | 676 | 6160 | 547 | 1790 | 2940 |
| 6 | 199 | 828 | e460 | 2370 | 553 | 1880 | 3850 | 1000 | 4220 | 525 | 1510 | 2160 |
| 7 | 194 | 911 | e450 | 2050 | 523 | 1610 | 3070 | 883 | 4440 | 635 | 1140 | 1710 |
| 8 | 187 | 695 | e430 | 1850 | 483 | 1240 | 2920 | 1470 | 4900 | 597 | 1240 | 1420 |
| 9 | 183 | 600 | e420 | 2090 | 442 | 2530 | 2700 | 1550 | 4050 | 527 | 1310 | 1220 |
| 10 | 185 | 586 | e380 | 2080 | 456 | 2590 | 2520 | 2210 | 3110 | 529 | 3420 | 1070 |
| 11 | 232 | 630 | e450 | 1710 | 438 | 1710 | 2830 | 2820 | 2560 | 1560 | 2290 | 933 |
| 12 | 667 | 731 | e660 | 1450 | 429 | 1760 | 3380 | 2350 | 2220 | 852 | 2470 | 834 |
| 13 | 560 | 1010 | 919 | 1300 | e430 | 3710 | 2890 | 2140 | 2140 | 594 | 1550 | 765 |
| 14 | 400 | 822 | 1620 | 1110 | e410 | 4720 | 2460 | 1810 | 1800 | 530 | 1300 | 789 |
| 15 | 305 | 657 | 2520 | 1010 | e390 | 3890 | 2130 | 1560 | 1560 | 495 | 1100 | 780 |
| 16 | 425 | 664 | 2100 | e910 | e350 | 4230 | 1870 | 3350 | 1360 | 492 | 930 | 1450 |
| 17 | 1090 | 2120 | 1640 | e830 | 274 | 5620 | 1630 | 4730 | 1220 | 492 | 910 | 819 |
| 18 | 594 | 2380 | 1280 | e750 | 358 | 6530 | 1450 | 4310 | 2460 | 434 | 849 | 714 |
| 19 | 459 | 1660 | 1100 | e710 | 491 | 6130 | 1320 | 3880 | 1900 | 495 | 718 | 2660 |
| 20 | 404 | 1400 | 1550 | e690 | 507 | 5550 | 1220 | 3030 | 1690 | 454 | 654 | 3420 |
| 21 | 321 | 1180 | 2290 | e660 | 463 | 7400 | 1130 | 2820 | 1850 | 417 | 610 | 2120 |
| 22 | 301 | 1020 | 1820 | e650 | 538 | 6210 | 1160 | 2270 | 1820 | 539 | 577 | 1720 |
| 23 | 294 | 980 | 1620 | e610 | 2400 | 4870 | 1050 | 2170 | 1500 | 732 | 548 | 4590 |
| 24 | 286 | 819 | 1370 | e560 | 2250 | 3860 | 899 | 2640 | 1320 | 523 | 511 | 3240 |
| 25 | 281 | 744 | 1300 | e540 | 1440 | 3140 | 845 | 2380 | 1170 | 459 | 487 | 2460 |
| 26 | 685 | 691 | 1200 | e510 | 1110 | 2680 | 855 | 2810 | 1050 | 411 | 595 | 2080 |
| 27 | 778 | 679 | 1020 | e500 | 992 | 2300 | 914 | 3400 | 948 | 391 | 1230 | 1900 |
| 28 | 500 | 658 | 926 | e500 | 930 | 1930 | 794 | 2750 | 849 | 396 | 815 | 8840 |
| 29 | 422 | 604 | 871 | e490 | --- | 1730 | 744 | 2410 | 777 | 387 | 629 | 4960 |
| 30 | 794 | 644 | 819 | 499 | --- | 1710 | 720 | 2000 | 728 | 362 | e970 | 3400 |
| 31 | 1110 | --- | 787 | 479 | --- | 1650 | --- | 1930 | --- | 351 | e1060 | --- |
| TOTAL | 12901 | 26624 | 32690 | 54648 | 19638 | 95048 | 55071 | 68111 | 73112 | 17332 | 39293 | 70124 |
| MEAN | 416 | 887 | 1055 | 1763 | 701 | 3066 | 1836 | 2197 | 2437 | 559 | 1268 | 2337 |
| MAX | 1110 | 2380 | 2520 | 12000 | 2400 | 7400 | 3850 | 4730 | 8970 | 1560 | 4240 | 8840 |
| MIN | 183 | 459 | 380 | 479 | 274 | 731 | 720 | 647 | 728 | 351 | 487 | 714 |
| CFSM | 0.51 | 1.09 | 1.29 | 2.16 | 0.86 | 3.76 | 2.25 | 2.69 | 2.99 | 0.69 | 1.55 | 2.86 |
| IN. | 0.59 | 1.21 | 1.49 | 2.49 | 0.90 | 4.33 | 2.51 | 3.11 | 3.33 | 0.79 | 1.79 | 3.20 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2003, BY WATER YEAR (WY)

| | 543 | 805 | 1059 | 1127 | 1426 | 2259 | 2022 | 1485 | 984 | 568 | 461 | 485 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 543 | 805 | 1059 | 1127 | 1426 | 2259 | 2022 | 1485 | 984 | 568 | 461 | 485 |
| MAX | 2114 | 3020 | 3100 | 2780 | 3059 | 4920 | 5739 | 3217 | 5562 | 1920 | 1447 | 2856 |
| (WY) | 1991 | 1998 | 1973 | 1996 | 1971 | 1994 | 1993 | 1978 | 1972 | 1989 | 1956 | 1996 |
| MIN | 146 | 233 | 232 | 265 | 379 | 693 | 747 | 528 | 312 | 201 | 163 | 143 |
| (WY) | 1964 | 1964 | 1966 | 1981 | 1963 | 1969 | 1946 | 1976 | 1965 | 1966 | 1966 | 1963 |

e Estimated.

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01559000 JUNIATA RIVER AT HUNTINGDON, PA--Continued

| SUMMARY STATISTICS | FOR 2002 CALENDAR YEAR | | FOR 2003 WATER YEAR | | WATER YEARS 1942 - 2003 | |
|--------------------------|------------------------|--------|---------------------|-------|-------------------------|-------------|
| ANNUAL TOTAL | 316147 | | 564592 | | | |
| ANNUAL MEAN | 866 | | 1547 | | 1100 | |
| HIGHEST ANNUAL MEAN | | | | | 1830 | 1972 |
| LOWEST ANNUAL MEAN | | | | | 595 | 1969 |
| HIGHEST DAILY MEAN | 8150 | Mar 27 | 12000 | Jan 2 | 50400 | Jun 23 1972 |
| LOWEST DAILY MEAN | 130 | Sep 16 | 183 | Oct 9 | 40 | Sep 12 1963 |
| ANNUAL SEVEN-DAY MINIMUM | 150 | Sep 13 | 195 | Oct 4 | 117 | Sep 10 1963 |
| MAXIMUM PEAK FLOW | | | 13500 | Jan 2 | a 57000 | Jun 23 1972 |
| MAXIMUM PEAK STAGE | | | 9.46 | Jan 2 | 20.03 | Jun 23 1972 |
| INSTANTANEOUS LOW FLOW | | | 148 | Oct 1 | b 14 | Feb 8 1948 |
| ANNUAL RUNOFF (CFSM) | 1.06 | | 1.90 | | 1.35 | |
| ANNUAL RUNOFF (INCHES) | 14.41 | | 25.74 | | 18.31 | |
| 10 PERCENT EXCEEDS | 1880 | | 3360 | | 2360 | |
| 50 PERCENT EXCEEDS | 527 | | 980 | | 656 | |
| 90 PERCENT EXCEEDS | 200 | | 430 | | 264 | |

a From rating curve extended above 22,000 ft³/s on basis of computation of peak discharge at dam, slope-conveyance study, and Pennsylvania Department of Environmental Protection step-backwater study.

b Minimum recorded; Also Aug. 2, 1954.

