

## KISKIMINETAS RIVER BASIN

## 03045000 LOYALHANNA CREEK AT KINGSTON, PA

**LOCATION.**--Lat 40°17'33", long 79°20'27", Westmoreland County, Hydrologic Unit 05010008, on right bank 60 ft downstream from bridge on State Highway 217 at Kingston, 100 ft downstream from Miller Run, 1.9 mi upstream from Ninemile Run, and 3 mi southeast of Latrobe.

**DRAINAGE AREA.**--172 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1939 to current year. Monthly discharge only October to December 1939, published in WSP 1305.

**REVISED RECORDS.**--WSP 1335: Drainage area.

**GAGE.**--Water-stage recorder and crest-stage gage. Datum of gage is 1,013.16 ft above sea level (U.S. Army Corps of Engineers bench mark). Prior to Oct. 1, 1969, at datum 1.00 ft higher.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Flow regulated by Latrobe Reservoir, capacity, 3,670 acre-ft, and diversion works at Kingston. Figures of daily discharge do not include diversion from reservoir and at Kingston intake to borough of Latrobe. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Maximum stage since at least 1918, 15.8 ft, present datum, Oct. 15, 1954. Flood of Mar. 17 or 18, 1936 reached a stage of about 15.5 ft, present datum, from information by local residents, discharge, about 21,000 ft<sup>3</sup>/s, from rating curve extended above 8,700 ft<sup>3</sup>/s.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 3,500 ft<sup>3</sup>/s and maximum (\*):

| Date    | Time | Discharge<br>ft <sup>3</sup> /s | Gage Height<br>(ft) | Date                             | Time | Discharge<br>ft <sup>3</sup> /s | Gage Height<br>(ft) |
|---------|------|---------------------------------|---------------------|----------------------------------|------|---------------------------------|---------------------|
| Apr. 16 | 0500 | *2,530                          | *6.45               | (No peaks above base discharge.) |      |                                 |                     |

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

| DAY   | OCT   | NOV  | DEC  | JAN  | FEB   | MAR   | APR   | MAY  | JUN  | JUL   | AUG  | SEP  |
|-------|-------|------|------|------|-------|-------|-------|------|------|-------|------|------|
| 1     | 81    | 88   | 417  | e84  | 1040  | 169   | 271   | 136  | 97   | 269   | 21   | 28   |
| 2     | 73    | 85   | 331  | e82  | 701   | 164   | 306   | 127  | 438  | 354   | 19   | 26   |
| 3     | 67    | 81   | 261  | e80  | 519   | 157   | 292   | 118  | 426  | 150   | 19   | 19   |
| 4     | 63    | 78   | 220  | e80  | 422   | 162   | 292   | 110  | 243  | 118   | 39   | 17   |
| 5     | 85    | 74   | 213  | e82  | 376   | 200   | 293   | 102  | 168  | 172   | 52   | 15   |
| 6     | 153   | 69   | 176  | e80  | 353   | 170   | 384   | 94   | 189  | 252   | 29   | 14   |
| 7     | 112   | 84   | 169  | e76  | 354   | 160   | 1350  | 85   | 212  | 133   | 22   | 14   |
| 8     | 84    | 82   | 163  | e74  | 329   | 155   | 967   | 81   | 176  | 145   | 19   | 14   |
| 9     | 77    | 78   | 139  | e70  | 520   | 197   | 1190  | 91   | 137  | 120   | 16   | 12   |
| 10    | 86    | 202  | 122  | e67  | 903   | 183   | 997   | 79   | 112  | 93    | 17   | 11   |
| 11    | 78    | 287  | 136  | e72  | 657   | 176   | 881   | 73   | 99   | 97    | 32   | 11   |
| 12    | 68    | 188  | 355  | e78  | 509   | 205   | 725   | 90   | 97   | 73    | 30   | 10   |
| 13    | 62    | 165  | 253  | e78  | 426   | 738   | 573   | 86   | 93   | 62    | 28   | 10   |
| 14    | 59    | 179  | 344  | e78  | 413   | 1190  | 471   | 69   | 134  | 56    | 26   | 11   |
| 15    | 57    | 157  | 359  | e82  | 791   | 781   | 462   | 63   | 83   | 50    | 18   | 13   |
| 16    | 56    | 138  | 371  | e100 | 972   | 716   | 2020  | 61   | 109  | 45    | 16   | 12   |
| 17    | 70    | 127  | 851  | e115 | 1220  | 1530  | 1220  | 60   | 174  | 43    | 19   | 11   |
| 18    | 668   | 113  | 623  | e110 | 794   | 1220  | 853   | 60   | 95   | 72    | 16   | 10   |
| 19    | 354   | 104  | 495  | e125 | 589   | 822   | 627   | 68   | 76   | 62    | 15   | 10   |
| 20    | 247   | 100  | 386  | e140 | 514   | 610   | 514   | 60   | 65   | 43    | 20   | 18   |
| 21    | 199   | 112  | 310  | e120 | 433   | 614   | 456   | 58   | 265  | 36    | 17   | 36   |
| 22    | 167   | 99   | 268  | e110 | 327   | 658   | 379   | 73   | 120  | 33    | 15   | 19   |
| 23    | 141   | 87   | e210 | e100 | 295   | 518   | 320   | 105  | 594  | 30    | 15   | 14   |
| 24    | 124   | 89   | e160 | e110 | 249   | 487   | 289   | 67   | 381  | 28    | 16   | 27   |
| 25    | 117   | 85   | e130 | e95  | 241   | 426   | 247   | 85   | 227  | 27    | 17   | 120  |
| 26    | 108   | 176  | e120 | e80  | 224   | 361   | 216   | 96   | 166  | 26    | 15   | 49   |
| 27    | 102   | 313  | e115 | e80  | 196   | 303   | 200   | 73   | 129  | 31    | 14   | 30   |
| 28    | 147   | 339  | e115 | e80  | 184   | 271   | 181   | 87   | 106  | 26    | 20   | 23   |
| 29    | 116   | 310  | e105 | e82  | ---   | 251   | 158   | 76   | 91   | 22    | 86   | 21   |
| 30    | 102   | 518  | e96  | e700 | ---   | 320   | 146   | 84   | 144  | 21    | 29   | 19   |
| 31    | 94    | ---  | e88  | 1970 | ---   | 290   | ---   | 67   | ---  | 22    | 21   | ---  |
| TOTAL | 4017  | 4607 | 8101 | 5280 | 14551 | 14204 | 17280 | 2584 | 5446 | 2711  | 738  | 644  |
| MEAN  | 130   | 154  | 261  | 170  | 520   | 458   | 576   | 83.4 | 182  | 87.5  | 23.8 | 21.5 |
| MAX   | 668   | 518  | 851  | 1970 | 1220  | 1530  | 2020  | 136  | 594  | 354   | 86   | 120  |
| MIN   | 56    | 69   | 88   | 67   | 184   | 155   | 146   | 58   | 65   | 21    | 14   | 10   |
| (†)   | + .23 | +4.3 | +8.4 | +6.2 | +15   | +13   | +16   | -3.7 | +2.5 | + .80 | +1.0 | +7.4 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2001, BY WATER YEAR (WY)

|      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 107  | 211  | 349  | 376  | 472  | 608  | 529  | 366  | 226  | 118  | 98.8 | 87.5 |
| MAX  | 689  | 785  | 834  | 850  | 1210 | 1305 | 1007 | 779  | 997  | 344  | 667  | 635  |
| (WY) | 1955 | 1986 | 1973 | 1952 | 1986 | 1963 | 1940 | 1952 | 1972 | 1990 | 1979 | 1971 |
| MIN  | 2.76 | 5.09 | 29.4 | 79.0 | 137  | 175  | 178  | 83.4 | 38.3 | 7.76 | 7.04 | 4.20 |
| (WY) | 1954 | 1954 | 1999 | 1940 | 1978 | 1969 | 1997 | 2001 | 1999 | 1966 | 1957 | 1957 |

† Diversion from and change in contents in Latrobe Reservoir and diversion from Kingston intake, equivalent in cubic feet per second, furnished by Latrobe Municipal Authority.

e Estimated.

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03045000 LOYALHANNA CREEK AT KINGSTON, PA--Continued

| SUMMARY STATISTICS       | FOR 2000 CALENDAR YEAR |         | FOR 2001 WATER YEAR |                     | WATER YEARS 1940 - 2001 |             |
|--------------------------|------------------------|---------|---------------------|---------------------|-------------------------|-------------|
| ANNUAL TOTAL             | 86804                  |         | 80163               |                     |                         |             |
| ANNUAL MEAN              | 237 † +7.6             |         | 220 † +5.2          |                     | 294                     |             |
| HIGHEST ANNUAL MEAN      |                        |         |                     |                     | 447 1971                |             |
| LOWEST ANNUAL MEAN       |                        |         |                     |                     | 160 1954                |             |
| HIGHEST DAILY MEAN       | 3140                   | Feb 14  | 2020                | Apr 16              | 14200                   | Jun 23 1972 |
| LOWEST DAILY MEAN        | 25                     | Sep 8,9 | 10                  | Sep 12 <sup>a</sup> | .20                     | Oct 23 1953 |
| ANNUAL SEVEN-DAY MINIMUM | 29                     | Sep 4   | 11                  | Sep 12              | .63                     | Oct 19 1953 |
| MAXIMUM PEAK FLOW        |                        |         | 2530                | Apr 16              | <sup>b</sup> 29700      | Oct 15 1954 |
| MAXIMUM PEAK STAGE       |                        |         | 6.45                | Apr 16              | <sup>c</sup> 15.80      | Oct 15 1954 |
| INSTANTANEOUS LOW FLOW   |                        |         | 9.7                 | Sep 19,20           | .10                     | Sep 4 1953  |
| 10 PERCENT EXCEEDS       | 529                    |         | 541                 |                     | 696                     |             |
| 50 PERCENT EXCEEDS       | 128                    |         | 110                 |                     | 157                     |             |
| 90 PERCENT EXCEEDS       | 57                     |         | 19                  |                     | 21                      |             |

† Diversion from and change in contents in Latrobe Reservoir and diversion from Kingston intake, equivalent in cubic feet per second, furnished by Latrobe Municipal Authority.

<sup>a</sup> Also Sept. 13, 18, 19.

<sup>b</sup> From rating curve extended above 8,700 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 13.37 ft.

<sup>c</sup> Present datum, from floodmarks.

