

BEAVER RIVER BASIN

03106300 MUDDY CREEK NEAR PORTERSVILLE, PA

LOCATION.--Lat 40°57'47", long 80°07'31", Butler County, Hydrologic Unit 05030105, on left bank 1,000 ft downstream of Lake Arthur Dam, 0.2 mi north of U.S. Highway 422, and 3 mi north of Portersville.

DRAINAGE AREA.--51.2 mi².

PERIOD OF RECORD.--March 1963 to September 1993, July 1994 to current year.

REVISED RECORDS.--WDR PA-79-3: 1978.

GAGE.--Water-stage recorder. Datum of gage is 1,160.91 ft above sea level (Pennsylvania Department of Environmental Protection bench mark). Prior to Apr. 8, 1963 nonrecording gage at site 2,000 ft downstream at different datum. Apr. 8 to May 1, 1963, nonrecording gage and May 2, 1963 to Sept. 30, 1980, water-stage recorder at site 1,000 ft downstream at datum 5.71 ft lower.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some regulation from October 1966 to May 1969 and completely regulated thereafter by Lake Arthur (station 03106280) 1,000 ft upstream. Several measurements of water temperature were made during the year. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|------|------|------|-------|--------|------|------|-------|-------|-------|
| 1 | 5.9 | e2.9 | 64 | 95 | e10 | e91 | 6.9 | 49 | e52 | e23 | e8.2 | e5.5 |
| 2 | 4.3 | e2.9 | 86 | 95 | e10 | e91 | 8.4 | 53 | e52 | e23 | e8.0 | e5.5 |
| 3 | 5.2 | e2.8 | 82 | 96 | e10 | e90 | 9.8 | 51 | e52 | e23 | e7.8 | e5.4 |
| 4 | 5.7 | e2.8 | 81 | 99 | e10 | e90 | 40 | 48 | e51 | e22 | e7.6 | e5.4 |
| 5 | 5.4 | e2.8 | 79 | 97 | e10 | e90 | 100 | 46 | e50 | e21 | e7.4 | e5.4 |
| 6 | 4.3 | e2.8 | 78 | 107 | e10 | 93 | 142 | 43 | e50 | e20 | e7.2 | e5.3 |
| 7 | 4.2 | e2.8 | 74 | 118 | e10 | 8.7 | 183 | 40 | e48 | e20 | e7.2 | e5.3 |
| 8 | e4.1 | e2.8 | 74 | 117 | e10 | 6.3 | 239 | 37 | e48 | e19 | e7.1 | e5.3 |
| 9 | e4.1 | e2.7 | 73 | 114 | e10 | e6.5 | 288 | 34 | e47 | e19 | e7.1 | e5.3 |
| 10 | e4.0 | e2.8 | 75 | 113 | e10 | e6.5 | 290 | 31 | e46 | e18 | e7.0 | e5.3 |
| 11 | e4.0 | e2.8 | 75 | 113 | e14 | e6.4 | 275 | 30 | e46 | e18 | e6.8 | e5.3 |
| 12 | e3.9 | e2.9 | 74 | 113 | e20 | e6.4 | 243 | 27 | e45 | e18 | e6.7 | e5.2 |
| 13 | e3.9 | e2.9 | 89 | 113 | e27 | e6.4 | 217 | 26 | e45 | e18 | e6.6 | e5.2 |
| 14 | e3.8 | e3.0 | 103 | 112 | e35 | e6.2 | 185 | 25 | e44 | e18 | e6.5 | e5.2 |
| 15 | e3.7 | e3.1 | 102 | 112 | e48 | e6.2 | 160 | 24 | e42 | e18 | e6.4 | e5.2 |
| 16 | e3.7 | e3.2 | 101 | 111 | e94 | e6.0 | 139 | e22 | e39 | e17 | e6.4 | e5.2 |
| 17 | e3.6 | e3.3 | 100 | 111 | e94 | e6.0 | 138 | e24 | e37 | e16 | e6.3 | e5.2 |
| 18 | e3.5 | e3.3 | 100 | 87 | e94 | e6.0 | 123 | e25 | e36 | e15 | e6.2 | e5.1 |
| 19 | e3.5 | e3.3 | 99 | 62 | e94 | e5.9 | 110 | e27 | e34 | e14 | e6.2 | e5.1 |
| 20 | e3.4 | e3.3 | 99 | e52 | e93 | e5.9 | 102 | e31 | e33 | e13 | e6.1 | e5.1 |
| 21 | e3.4 | e3.3 | 98 | e44 | e93 | e5.8 | 99 | e36 | e32 | e13 | e6.0 | e5.1 |
| 22 | e3.3 | e3.2 | 98 | e34 | e93 | e5.8 | 98 | e40 | e30 | e12 | e6.0 | e5.1 |
| 23 | e3.2 | e3.2 | 97 | e28 | e92 | e5.8 | 94 | e45 | e28 | e12 | e5.9 | e5.1 |
| 24 | e3.2 | e3.1 | 97 | e24 | e92 | e5.8 | 88 | e50 | e27 | e11 | e5.8 | e5.1 |
| 25 | e3.2 | e3.1 | 97 | e18 | e92 | e5.7 | 82 | e57 | e26 | e11 | e5.8 | e5.1 |
| 26 | e3.2 | 4.4 | 97 | e15 | e91 | e5.7 | 73 | e57 | e26 | e10 | e5.7 | e5.1 |
| 27 | e3.1 | 4.0 | 97 | e12 | e91 | e5.7 | 67 | e56 | e25 | e9.2 | e5.7 | e5.0 |
| 28 | e3.1 | 5.3 | 96 | e11 | e91 | e5.7 | 63 | e56 | e25 | e9.0 | e5.6 | e5.0 |
| 29 | e3.0 | 4.3 | 96 | e11 | e91 | e5.7 | 59 | e54 | e24 | e8.8 | e5.6 | e5.0 |
| 30 | e3.0 | 21 | 96 | e11 | --- | e5.7 | 53 | e52 | e24 | e8.7 | e5.6 | e5.0 |
| 31 | e2.9 | --- | 96 | e11 | --- | e5.7 | --- | e52 | --- | e8.6 | e5.6 | --- |
| TOTAL | 118.8 | 114.1 | 2773 | 2256 | 1539 | 697.5 | 3775.1 | 1248 | 1164 | 486.3 | 202.1 | 156.1 |
| MEAN | 3.83 | 3.80 | 89.5 | 72.8 | 53.1 | 22.5 | 126 | 40.3 | 38.8 | 15.7 | 6.52 | 5.20 |
| MAX | 5.9 | 21 | 103 | 118 | 94 | 93 | 290 | 57 | 52 | 23 | 8.2 | 5.5 |
| MIN | 2.9 | 2.7 | 64 | 11 | 10 | 5.7 | 6.9 | 22 | 24 | 8.6 | 5.6 | 5.0 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2000, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 29.0 | 61.3 | 103 | 96.6 | 106 | 112 | 109 | 74.6 | 54.0 | 32.3 | 21.0 | 22.0 |
| MAX | 268 | 248 | 268 | 212 | 220 | 298 | 200 | 187 | 332 | 155 | 127 | 227 |
| (WY) | 1976 | 1973 | 1973 | 1965 | 1990 | 1964 | 1972 | 1983 | 1989 | 1990 | 1980 | 1975 |
| MIN | 1.11 | 1.50 | 2.41 | 2.40 | 31.0 | 4.31 | 2.78 | 2.97 | 1.53 | 3.01 | 1.98 | .61 |
| (WY) | 1964 | 1970 | 1970 | 1970 | 1980 | 1999 | 1986 | 1986 | 1969 | 1965 | 1966 | 1969 |

e Estimated.

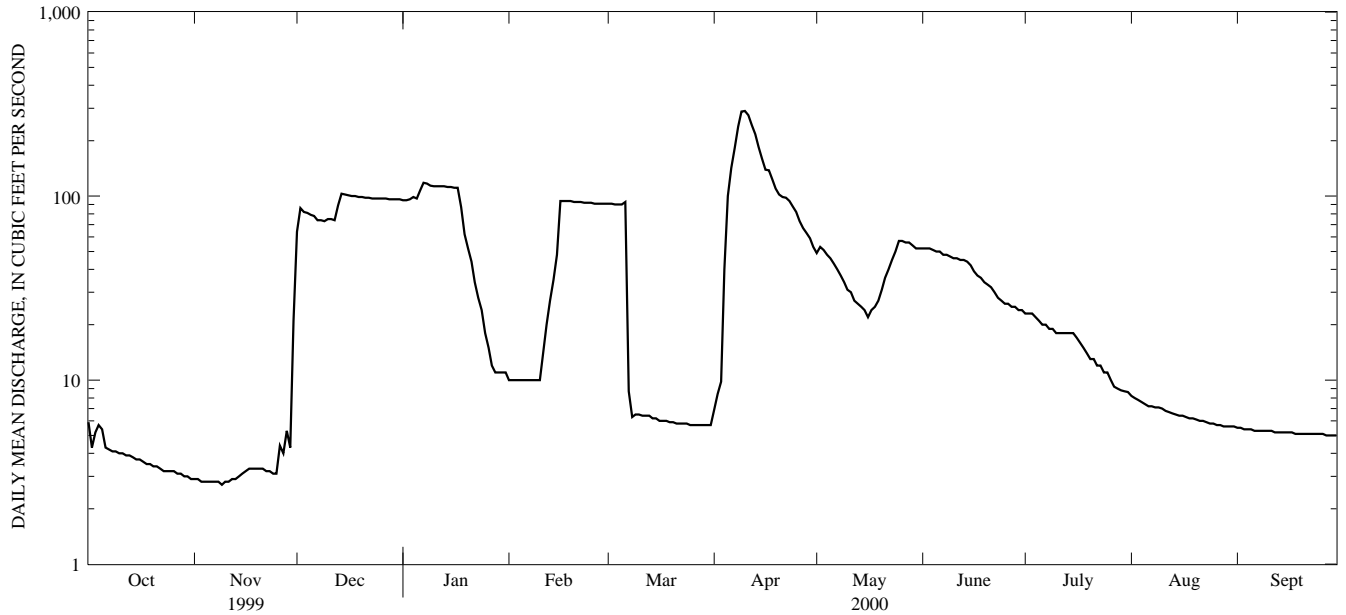
BEAVER RIVER BASIN

03106300 MUDDY CREEK NEAR PORTERSVILLE, PA--Continued

| SUMMARY STATISTICS | FOR 1999 CALENDAR YEAR | | FOR 2000 WATER YEAR | | WATER YEARS 1963 - 2000 | |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|-------------|
| ANNUAL TOTAL | 13851.7 | | 14530.0 | | | |
| ANNUAL MEAN | 37.9 | | 39.7 | | 68.5 | |
| HIGHEST ANNUAL MEAN | | | | | 98.9 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 24.1 | 1970 |
| HIGHEST DAILY MEAN | 220 | Feb 2 | 290 | Apr 10 | 1450 | Mar 10 1964 |
| LOWEST DAILY MEAN | 2.0 | Mar 15 | 2.7 | Nov 9 | .50 | Sep 1 1969 |
| ANNUAL SEVEN-DAY MINIMUM | a2.4 | Apr 7 | a2.8 | Nov 3 | .54 | Aug 29 1969 |
| INSTANTANEOUS PEAK FLOW | | | 304 | Apr 9 | b1640 | Mar 10 1964 |
| INSTANTANEOUS PEAK STAGE | | | 4.96 | Apr 9 | 8.18 | Mar 10 1964 |
| INSTANTANEOUS LOW FLOW | | | | | .40 | Sep 17 1966 |
| 10 PERCENT EXCEEDS | 117 | | 99 | | 178 | |
| 50 PERCENT EXCEEDS | 5.4 | | 18 | | 36 | |
| 90 PERCENT EXCEEDS | 2.9 | | 3.4 | | 3.8 | |

a Computed using estimated daily discharges.

b From rating curve extended above 820 ft³/s on basis of slope-area measurement of peak flow.



1-YEAR HYDROGRAPH
OCTOBER 1, 1999 TO SEPTEMBER 30, 2000