

## SWATARA CREEK BASIN

## 01572950 INDIANTOWN RUN NEAR HARPER TAVERN, PA

**LOCATION**--Lat 40°26'20", long 76°35'55", Lebanon County, Hydrologic Unit 02050305, on left bank, 10 ft downstream from Lake Road bridge over Indiantown Run, 20 ft west of State Highway 443 in Indiantown Gap Military Reservation, 1,500 ft upstream from Marquette Lake, 1.9 mi upstream from State Memorial Lake dam and 2.5 mi north of Harper Tavern.

**DRAINAGE AREA**--5.48 mi<sup>2</sup>.

**PERIOD OF RECORD**--August 2002 to current year.

**GAGE**--Water-stage recorder and crest-stage gage. Datum of gage is 530 ft above National Geodetic Vertical Datum of 1929, from topographic map.

**REMARKS**--Records fair except those for estimated daily discharges, which are poor. Satellite telemetry at station.

**PEAK DISCHARGES FOR CURRENT YEAR**--Peak discharges greater than a base discharge of 150 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) |
|---------|------|---------------------------------|---------------------|---------|------|---------------------------------|---------------------|
| Dec. 1  | 0900 | 185                             | 3.52                | Apr. 2  | 1545 | 198                             | 3.59                |
| Jan. 14 | 0515 | 176                             | 3.47                | Apr. 3  | 0600 | 198                             | 3.59                |
| Mar. 28 | 1730 | *198                            | *3.59               | July 17 | ---- | Unknown                         | Unknown             |

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG  | SEP  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| 1     | 24    | 3.7   | 93    | 11    | 7.1   | 8.9   | 30    | 8.8   | 3.9   | 2.6   | 4.0  | 2.4  |
| 2     | 23    | 3.5   | 62    | 9.1   | 7.0   | 8.1   | 92    | 8.1   | 3.8   | 2.4   | 3.8  | 2.2  |
| 3     | 22    | 3.7   | 47    | 9.4   | 6.2   | 7.4   | 138   | 7.6   | 5.0   | 2.3   | 3.5  | 2.1  |
| 4     | 15    | 6.9   | 36    | 11    | 6.3   | 7.2   | 78    | 7.1   | 6.3   | 2.3   | 3.3  | 1.9  |
| 5     | 12    | 6.8   | 28    | 14    | 6.2   | 7.2   | 51    | 6.8   | 4.6   | 2.9   | 3.2  | 1.8  |
| 6     | 10    | 5.4   | 23    | 31    | 6.3   | 7.5   | 37    | 6.6   | 12    | 4.1   | 3.0  | 1.8  |
| 7     | 8.8   | 5.3   | 24    | 25    | 6.4   | 10    | 30    | 6.6   | 13    | 2.9   | 3.1  | 1.7  |
| 8     | 7.7   | 5.2   | 20    | 48    | 6.9   | 18    | 25    | 6.2   | 8.4   | 17    | 3.0  | 1.7  |
| 9     | 6.8   | 5.3   | 19    | 42    | 8.3   | 16    | 20    | 6.1   | 8.5   | 6.3   | 3.1  | 1.6  |
| 10    | 6.1   | 5.2   | 54    | 36    | 9.5   | 16    | 17    | 5.8   | 8.2   | 4.7   | 2.9  | 1.6  |
| 11    | 5.4   | 5.2   | e45   | 32    | 7.5   | 15    | 15    | 5.6   | 7.0   | 4.1   | 2.7  | 1.5  |
| 12    | 4.9   | 10    | e35   | 32    | 7.2   | 14    | 13    | 5.5   | 6.2   | 3.7   | 2.6  | 1.5  |
| 13    | 4.6   | 8.5   | e30   | 26    | 6.7   | 13    | 12    | 5.2   | 5.7   | 3.4   | 2.5  | 1.5  |
| 14    | 6.6   | 6.7   | 26    | e90   | 12    | 12    | 11    | 6.2   | 5.4   | 3.5   | 2.4  | 1.4  |
| 15    | 5.1   | 6.6   | 21    | e50   | 21    | 11    | 10    | 8.7   | 5.0   | 3.2   | 2.3  | 1.5  |
| 16    | e4.0  | 6.7   | 18    | e40   | 17    | 10    | 9.2   | 5.6   | 5.1   | e15   | 3.1  | 1.7  |
| 17    | e3.2  | 6.6   | 17    | e35   | 16    | 9.7   | 9.0   | 5.4   | 4.6   | e130  | 2.9  | 2.5  |
| 18    | e3.0  | 6.6   | 15    | e30   | 14    | 9.3   | 8.5   | 5.1   | 4.2   | e45   | 2.4  | 1.7  |
| 19    | 8.1   | 6.3   | 13    | 24    | 13    | 9.0   | 8.0   | 4.8   | 4.0   | 18    | 2.7  | 1.6  |
| 20    | 4.8   | 7.7   | 11    | 22    | e12   | 9.1   | 7.6   | 5.7   | 3.8   | 14    | 2.4  | 1.5  |
| 21    | 4.5   | 8.0   | 10    | 19    | e13   | 8.8   | 7.0   | 5.1   | 3.6   | 12    | 2.4  | 1.5  |
| 22    | 5.3   | 6.5   | 9.2   | 17    | e13   | 8.9   | 6.8   | 4.6   | 3.5   | 10    | 2.3  | 1.5  |
| 23    | 4.2   | 6.2   | 32    | 15    | 12    | 19    | 12    | 4.6   | 3.3   | 8.8   | 2.1  | 1.6  |
| 24    | 4.0   | 40    | 24    | 13    | 10    | 23    | 12    | 4.5   | 2.9   | 7.5   | 1.9  | 1.5  |
| 25    | 3.8   | 49    | 19    | 12    | 9.8   | 19    | 8.9   | 4.3   | 2.8   | 8.6   | 1.9  | 1.4  |
| 26    | 3.6   | 37    | 18    | 12    | 9.0   | 18    | 8.1   | 4.0   | 2.7   | 6.5   | 1.9  | 2.0  |
| 27    | 3.5   | 30    | 16    | 12    | 8.7   | 18    | 8.3   | 3.5   | 2.6   | 5.7   | 1.9  | 2.3  |
| 28    | 3.3   | 59    | 14    | e9.5  | 8.7   | 85    | 7.6   | 3.5   | 2.8   | 5.2   | 5.7  | 1.7  |
| 29    | 3.3   | 42    | 13    | e9.0  | ---   | 96    | 7.4   | 4.2   | 3.1   | 4.9   | 2.7  | 1.8  |
| 30    | 5.0   | 35    | 12    | 8.4   | ---   | 57    | 9.2   | 4.3   | 3.0   | 4.5   | 2.6  | 1.5  |
| 31    | 3.9   | ---   | 11    | 7.6   | ---   | 40    | ---   | 4.1   | ---   | 4.2   | 2.7  | ---  |
| TOTAL | 229.5 | 434.6 | 815.2 | 752.0 | 280.8 | 611.1 | 708.6 | 174.2 | 155.0 | 365.3 | 87.0 | 52.0 |
| MEAN  | 7.40  | 14.5  | 26.3  | 24.3  | 10.0  | 19.7  | 23.6  | 5.62  | 5.17  | 11.8  | 2.81 | 1.73 |
| MAX   | 24    | 59    | 93    | 90    | 21    | 96    | 138   | 8.8   | 13    | 130   | 5.7  | 2.5  |
| MIN   | 3.0   | 3.5   | 9.2   | 7.6   | 6.2   | 7.2   | 6.8   | 3.5   | 2.6   | 2.3   | 1.9  | 1.4  |
| CFSM  | 1.35  | 2.64  | 4.80  | 4.43  | 1.83  | 3.60  | 4.31  | 1.03  | 0.94  | 2.15  | 0.51 | 0.32 |
| IN.   | 1.56  | 2.95  | 5.53  | 5.10  | 1.91  | 4.15  | 4.81  | 1.18  | 1.05  | 2.48  | 0.59 | 0.35 |

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

|      | 2002 | 2003 | 2004 | 2005 | 2002 | 2003 | 2004 | 2005 | 2002 | 2003 | 2004 | 2005 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 9.78 | 15.1 | 22.3 | 16.3 | 8.67 | 20.3 | 21.0 | 9.57 | 11.5 | 8.26 | 8.58 | 13.6 |
| MAX  | 15.8 | 18.1 | 26.3 | 24.3 | 10.0 | 28.6 | 23.6 | 12.5 | 22.4 | 11.8 | 12.6 | 37.5 |
| (WY) | 2004 | 2004 | 2005 | 2005 | 2005 | 2003 | 2005 | 2003 | 2003 | 2003 | 2004 | 2004 |
| MIN  | 6.08 | 12.7 | 16.7 | 10.2 | 6.78 | 12.5 | 16.9 | 5.62 | 5.17 | 5.13 | 2.81 | 1.73 |
| (WY) | 2003 | 2003 | 2003 | 2004 | 2003 | 2004 | 2003 | 2005 | 2005 | 2003 | 2005 | 2005 |

e Estimated.

## SWATARA CREEK BASIN

## 01572950 INDIANTOWN RUN NEAR HARPER TAVERN, PA--Continued

| SUMMARY STATISTICS       | FOR 2004 CALENDAR YEAR |        | FOR 2005 WATER YEAR |           | WATER YEARS 2002 - 2005 |             |
|--------------------------|------------------------|--------|---------------------|-----------|-------------------------|-------------|
| ANNUAL TOTAL             | 5425.8                 |        | 4665.3              |           |                         |             |
| ANNUAL MEAN              | 14.8                   |        | 12.8                |           | 14.1                    |             |
| HIGHEST ANNUAL MEAN      |                        |        |                     |           | 15.6                    | 2004        |
| LOWEST ANNUAL MEAN       |                        |        |                     |           | 12.8                    | 2005        |
| HIGHEST DAILY MEAN       | e600                   | Sep 18 | 138                 | Apr 3     | e600                    | Sep 18 2004 |
| LOWEST DAILY MEAN        | 2.5                    | Jul 11 | 1.4                 | Sep 14,25 | 0.83                    | Sep 10 2002 |
| ANNUAL SEVEN-DAY MINIMUM | 3.0                    | Jul 5  | 1.5                 | Sep 9     | 0.88                    | Sep 5 2002  |
| MAXIMUM PEAK FLOW        |                        |        | a198                | Mar 28b   | a2520                   | Sep 18 2004 |
| MAXIMUM PEAK STAGE       |                        |        | 3.59                | Mar 28b   | c9.31                   | Sep 18 2004 |
| INSTANTANEOUS LOW FLOW   |                        |        | 1.3                 | Sep 25    | 0.78                    | Sep 9 2002  |
| ANNUAL RUNOFF (CFSM)     | 2.71                   |        | 2.33                |           | 2.57                    |             |
| ANNUAL RUNOFF (INCHES)   | 36.83                  |        | 31.67               |           | 34.94                   |             |
| 10 PERCENT EXCEEDS       | 25                     |        | 30                  |           | 26                      |             |
| 50 PERCENT EXCEEDS       | 9.3                    |        | 7.0                 |           | 9.4                     |             |
| 90 PERCENT EXCEEDS       | 4.0                    |        | 2.3                 |           | 3.4                     |             |

a From rating curve extended above 124 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow at gage height 9.31 ft.

b Also Apr. 2, 3.

c From floodmark in gage.

e Estimated.

