

BUSH KILL BASIN

01439500 BUSH KILL AT SHOEMAKERS, PA

LOCATION.--Lat 41°05'17", long 75°02'17", Monroe County, Hydrologic Unit 02040104, on right bank 30 ft downstream from bridge on township route 523, 0.1 mi downstream from Saw Creek, 0.7 mi northwest of Shoemakers, and 2.0 mi southwest of Bushkill.

DRAINAGE AREA.--117 mi².

PERIOD OF RECORD.--October 1908 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1928, published as Bushkill Creek near Shoemakers; October 1928 to September 1952, published as Bushkill Creek at Shoemakers.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1202: 1921, 1932(M), 1933, 1935-36, 1938(M), 1939-40, 1942, 1945, 1946(M), 1948(M). WSP 1302: 1909-15, 1920(M), 1922-29. WDR PA-89-1: 1988.

GAGE.--Water-stage recorder. Datum of gage is 421.13 ft above sea level. Sept. 19, 1908, to Aug. 12, 1938, nonrecording gage, and Aug. 13, 1938, to June 20, 1956, water-stage recorder at site 50 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

| Date | Time | Discharge ft ³ /s | Gage Height (ft) | Date | Time | Discharge ft ³ /s | Gage Height (ft) |
|---------|------|---------------------------------|---------------------|----------------------------------|------|---------------------------------|---------------------|
| Feb. 28 | 2100 | *895 | *3.09 | (No peaks above base discharge.) | | | |

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 | 151 | 112 | 239 | 168 | e110 | 785 | 264 | 240 | 167 | 149 | 426 | 99 |
| 2 | 125 | 130 | 215 | 162 | e100 | 709 | 244 | 237 | 155 | 137 | 398 | 100 |
| 3 | 117 | 325 | 201 | 163 | e110 | 631 | 235 | 216 | 141 | 127 | 394 | 113 |
| 4 | 152 | 276 | 197 | 171 | e110 | 563 | 305 | 200 | 131 | 125 | 442 | 116 |
| 5 | 211 | 243 | 191 | 180 | e100 | 527 | 322 | 190 | 132 | 121 | 327 | 100 |
| 6 | e180 | 227 | 208 | 156 | e95 | 497 | 282 | 177 | 312 | 107 | 271 | 96 |
| 7 | 157 | 206 | 219 | 146 | e90 | 463 | 255 | 167 | 563 | 97 | 342 | 95 |
| 8 | 139 | 184 | 194 | 137 | e88 | 450 | 240 | 164 | 499 | 85 | 292 | 90 |
| 9 | 133 | 171 | 179 | 130 | e85 | 438 | 301 | 152 | 413 | 76 | 234 | 85 |
| 10 | 156 | 164 | 171 | 169 | e80 | 416 | 303 | 143 | 342 | 71 | 199 | 81 |
| 11 | 188 | 158 | 171 | 308 | e80 | 432 | 312 | 193 | 307 | 66 | 177 | 75 |
| 12 | 158 | 144 | 155 | 262 | e80 | 780 | 301 | 188 | 483 | 58 | 309 | 70 |
| 13 | 140 | 138 | 149 | e210 | e77 | 688 | 275 | 191 | 550 | 53 | 382 | 117 |
| 14 | 154 | 132 | 191 | e170 | e120 | 590 | 259 | 252 | 459 | 49 | 328 | 113 |
| 15 | 140 | 129 | 308 | e160 | e190 | 522 | 249 | 219 | 403 | 60 | 288 | 124 |
| 16 | 130 | 125 | 292 | e160 | e180 | 469 | 242 | 189 | 353 | 275 | 250 | 117 |
| 17 | 126 | 124 | 261 | e130 | e170 | 631 | 236 | 174 | 305 | 305 | 213 | 99 |
| 18 | 124 | 124 | 239 | e150 | e160 | 595 | 307 | 169 | 272 | 184 | 189 | 88 |
| 19 | 119 | 122 | 221 | e140 | e170 | 524 | 296 | 219 | 258 | 140 | 176 | 84 |
| 20 | 129 | 120 | 233 | e140 | e170 | 475 | 268 | 260 | 225 | 126 | 156 | 96 |
| 21 | 132 | 122 | 381 | e140 | e160 | 437 | 336 | 260 | 200 | 115 | 139 | 85 |
| 22 | 124 | 119 | 343 | e140 | e160 | e400 | 552 | 244 | 284 | 119 | 130 | 70 |
| 23 | 153 | 115 | 304 | e130 | e180 | e360 | 502 | 260 | 238 | 114 | 128 | 62 |
| 24 | 147 | 115 | 277 | e120 | e250 | e330 | 458 | 345 | 194 | 99 | 154 | 63 |
| 25 | 135 | 118 | e250 | e120 | e300 | 311 | 408 | 348 | 168 | 91 | 140 | 60 |
| 26 | 128 | 139 | e240 | e120 | e360 | 286 | 365 | 304 | 160 | 89 | 127 | 64 |
| 27 | 125 | 415 | e230 | e110 | 370 | 256 | 337 | 266 | 190 | 265 | 121 | 69 |
| 28 | 122 | 366 | e200 | e110 | 764 | 382 | 316 | 237 | 182 | 318 | 115 | 61 |
| 29 | 119 | 309 | e190 | e100 | 845 | 379 | 293 | 214 | 155 | 244 | 115 | 54 |
| 30 | 118 | 270 | e180 | e120 | --- | 329 | 268 | 193 | 166 | 316 | 109 | 50 |
| 31 | 116 | --- | 179 | e110 | --- | 293 | --- | 177 | --- | 395 | 103 | --- |
| TOTAL | 4348 | 5442 | 7008 | 4732 | 5754 | 14948 | 9331 | 6788 | 8407 | 4576 | 7174 | 2596 |
| MEAN | 140 | 181 | 226 | 153 | 198 | 482 | 311 | 219 | 280 | 148 | 231 | 86.5 |
| MAX | 211 | 415 | 381 | 308 | 845 | 785 | 552 | 348 | 563 | 395 | 442 | 124 |
| MIN | 116 | 112 | 149 | 100 | 77 | 256 | 235 | 143 | 131 | 49 | 103 | 50 |
| CFSM | 1.20 | 1.55 | 1.93 | 1.30 | 1.70 | 4.12 | 2.66 | 1.87 | 2.40 | 1.26 | 1.98 | .74 |
| IN. | 1.38 | 1.73 | 2.23 | 1.50 | 1.83 | 4.75 | 2.97 | 2.16 | 2.67 | 1.45 | 2.28 | .83 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2000, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 123 | 211 | 263 | 260 | 275 | 434 | 431 | 304 | 193 | 129 | 98.0 | 92.9 |
| MAX | 773 | 643 | 841 | 807 | 706 | 1119 | 1002 | 773 | 919 | 747 | 864 | 569 |
| (WY) | 1956 | 1933 | 1997 | 1979 | 1909 | 1936 | 1993 | 1989 | 1972 | 1945 | 1955 | 1933 |
| MIN | 7.74 | 13.6 | 21.7 | 44.2 | 39.7 | 156 | 141 | 90.7 | 32.8 | 13.4 | 8.33 | 4.39 |
| (WY) | 1965 | 1965 | 1999 | 1981 | 1934 | 1981 | 1985 | 1941 | 1962 | 1999 | 1964 | 1964 |

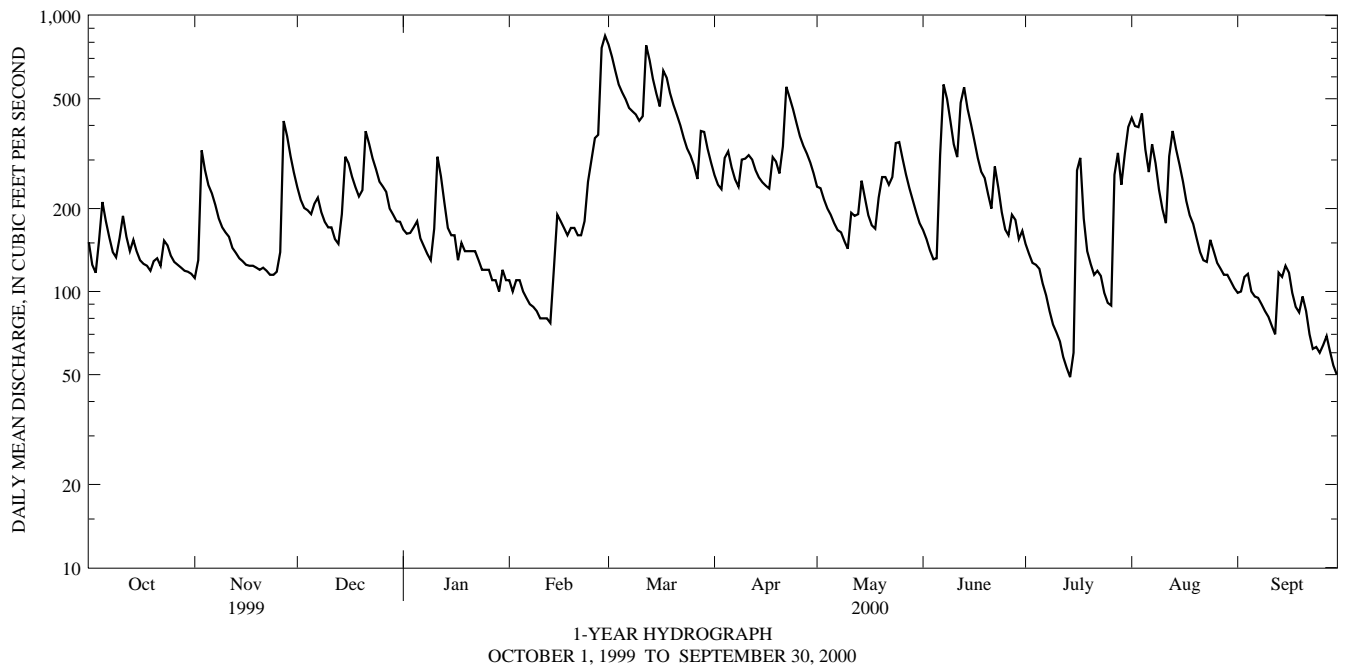
e Estimated.

BUSH KILL BASIN

01439500 BUSH KILL AT SHOEMAKERS, PA--Continued

| SUMMARY STATISTICS | FOR 1999 CALENDAR YEAR | | FOR 2000 WATER YEAR | | WATER YEARS 1909 - 2000 | |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|-------------|
| ANNUAL TOTAL | 64122.6 | | 81104 | | 234 | |
| ANNUAL MEAN | 176 | | 222 | | 419 | |
| HIGHEST ANNUAL MEAN | | | | | 1928 | |
| LOWEST ANNUAL MEAN | | | | | 95.4 | |
| HIGHEST DAILY MEAN | 1160 | Jan 25 | 845 | Feb 29 | 11800 | Aug 19 1955 |
| LOWEST DAILY MEAN | 4.4 | Aug 12 | 49 | Jul 14 | 2.6 | Sep 25 1964 |
| ANNUAL SEVEN-DAY MINIMUM | 4.7 | Aug 7 | 60 | Sep 24 | 2.7 | Sep 21 1964 |
| INSTANTANEOUS PEAK FLOW | | | 895 | Feb 28 | a 23400 | Aug 19 1955 |
| INSTANTANEOUS PEAK STAGE | | | 3.09 | Feb 28 | b 13.95 | Aug 19 1955 |
| INSTANTANEOUS LOW FLOW | | | | | 2.6 | Sep 25 1964 |
| ANNUAL RUNOFF (CFSM) | 1.50 | | 1.89 | | 2.00 | |
| ANNUAL RUNOFF (INCHES) | 20.39 | | 25.79 | | 27.21 | |
| 10 PERCENT EXCEEDS | 378 | | 404 | | 521 | |
| 50 PERCENT EXCEEDS | 147 | | 178 | | 160 | |
| 90 PERCENT EXCEEDS | 9.3 | | 96 | | 27 | |

a From rating curve extended above 2,600 ft³/s on basis of slope-area measurement of peak flow.
b From floodmark.



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