

YORK RIVER BASIN

01673000 PAMUNKEY RIVER NEAR HANOVER, VA

LOCATION.--Lat 37°46'03", long 77°19'57", Hanover County, Hydrologic Unit 02080106, on right bank 100 ft down- stream from bridge on State Highway 614, 0.3 mi upstream from Mechumps Creek, 2.0 mi east of Hanover, and 7.0 mi upstream from Millpond Creek.

DRAINAGE AREA.--1,081 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1302: 1944(M). WSP 1382: 1949. WSP 2103: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 14.72 ft above sea level. Prior to Oct. 15 1976, nonrecording gage at same site and datum.

REMARKS.--Records good except for periods of doubtful or no gage-height record, Oct. 30, Nov. 1-3, and Sep. 14-16, which are fair. Some regulation since January 1972 by Lake Anna, capacity, 373,000 acre-ft, and occasional diurnal fluctuation at low flow caused by mill upstream from station. Statistics of monthly mean data and summary statistics for water years 1942 - 1971 (unregulated flow) are available in previous data books, water years 1991 - 1998. Unknown amount of diversion for irrigation upstream from gage. Maximum discharge, 40,300 ft³/s, from rating curve extended above 22,000 ft³/s.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1928 reached a stage of 32.6 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,640 ft³/s, Mar 18, gage height, 17.93 ft; minimum discharge, 45 ft³/s, Aug 7, gage height, 2.20 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|------|------|-------|-------|-------|-------|------|------|------|------|-------|
| 1 | 55 | e65 | 152 | 179 | 373 | 483 | 620 | 274 | 134 | 558 | 97 | 112 |
| 2 | 54 | e84 | 155 | 161 | 363 | 689 | 716 | 265 | 101 | 386 | 95 | 91 |
| 3 | 56 | e137 | 143 | 245 | 422 | 686 | 741 | 251 | 100 | 173 | 92 | 76 |
| 4 | 53 | 153 | 113 | 506 | 484 | 614 | 740 | 245 | 96 | 111 | 89 | 74 |
| 5 | 57 | 127 | 106 | 605 | 537 | 750 | 692 | 233 | 82 | 95 | 82 | 244 |
| 6 | 58 | 97 | 105 | 500 | 449 | 858 | 640 | 229 | 82 | 80 | 57 | 517 |
| 7 | 58 | 95 | 105 | 425 | 390 | 725 | 589 | 226 | 78 | 69 | 47 | 959 |
| 8 | 60 | 118 | 107 | 383 | 356 | 586 | 563 | 225 | 76 | 68 | 51 | 552 |
| 9 | 96 | 160 | 159 | 317 | 331 | 514 | 551 | 210 | 72 | 69 | 51 | 315 |
| 10 | 112 | 162 | 215 | 265 | 311 | 491 | 619 | 203 | 70 | 90 | 52 | 268 |
| 11 | 85 | 157 | 211 | 226 | 294 | 480 | 651 | 189 | 67 | 91 | 49 | 222 |
| 12 | 91 | 157 | 201 | 220 | 279 | 491 | 656 | 164 | 63 | 91 | 51 | 183 |
| 13 | 86 | 155 | 273 | 223 | 304 | 499 | 636 | 155 | 68 | 100 | 49 | 176 |
| 14 | 106 | 147 | 384 | 214 | 338 | 507 | 573 | 171 | 81 | 101 | 55 | e150 |
| 15 | 95 | 148 | 332 | 241 | 339 | 1670 | 434 | 177 | 85 | 94 | 73 | e135 |
| 16 | 87 | 148 | 290 | 290 | 316 | 4490 | 403 | 172 | 75 | 84 | 101 | e2700 |
| 17 | 79 | 155 | 256 | 278 | 292 | 6000 | 385 | 167 | 81 | 75 | 80 | 5950 |
| 18 | 80 | 153 | 213 | 333 | 305 | 6200 | 365 | 180 | 80 | 68 | 62 | 4740 |
| 19 | 77 | 149 | 180 | 576 | 484 | 3660 | 352 | 175 | 78 | 65 | 53 | 1860 |
| 20 | 75 | 151 | 167 | 741 | 783 | 1680 | 335 | 159 | 75 | 61 | 62 | 806 |
| 21 | 74 | 151 | 151 | 732 | 718 | 1370 | 321 | 146 | 88 | 66 | 75 | 507 |
| 22 | 69 | 155 | 144 | 518 | 531 | 2710 | 313 | 140 | 88 | 60 | 81 | 421 |
| 23 | 79 | 151 | 137 | 390 | 426 | 3250 | 319 | 158 | 95 | 60 | 65 | 347 |
| 24 | 109 | 146 | 148 | 494 | 367 | 2200 | 439 | 209 | 99 | 57 | 57 | 275 |
| 25 | 107 | 141 | 160 | 1820 | 327 | 1460 | 460 | 287 | 90 | 60 | 66 | 244 |
| 26 | 102 | 145 | 164 | 2420 | 318 | 1020 | 414 | 270 | 69 | 64 | 102 | 214 |
| 27 | 108 | 155 | 149 | 1630 | 320 | 889 | 403 | 211 | 64 | 57 | 92 | 193 |
| 28 | 111 | 155 | 161 | 858 | 324 | 812 | 347 | 169 | 65 | 53 | 90 | 261 |
| 29 | 130 | 152 | 183 | 628 | --- | 743 | 314 | 143 | 64 | 54 | 367 | 610 |
| 30 | e86 | 152 | 205 | 508 | --- | 687 | 293 | 146 | 94 | 61 | 276 | 946 |
| 31 | 65 | --- | 195 | 439 | --- | 637 | --- | 156 | --- | 93 | 154 | --- |
| TOTAL | 2560 | 4221 | 5664 | 17365 | 11081 | 47851 | 14884 | 6105 | 2460 | 3214 | 2773 | 24148 |
| MEAN | 82.6 | 141 | 183 | 560 | 396 | 1544 | 496 | 197 | 82.0 | 104 | 89.5 | 805 |
| MAX | 130 | 162 | 384 | 2420 | 783 | 6200 | 741 | 287 | 134 | 558 | 367 | 5950 |
| MIN | 53 | 65 | 105 | 161 | 279 | 480 | 293 | 140 | 63 | 53 | 47 | 74 |
| CFSM | .08 | .13 | .17 | .52 | .37 | 1.43 | .46 | .18 | .08 | .10 | .08 | .74 |
| IN. | .09 | .15 | .19 | .60 | .38 | 1.65 | .51 | .21 | .08 | .11 | .10 | .83 |

01673000 PAMUNKEY RIVER NEAR HANOVER, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1999, BY WATER YEAR (WY) [REGULATED, UNADJUSTED]

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 711 | 861 | 1282 | 1696 | 1863 | 2111 | 1750 | 1169 | 794 | 533 | 438 | 520 |
| MAX | 3461 | 3505 | 3450 | 4334 | 7118 | 5430 | 5009 | 2821 | 4293 | 2747 | 2025 | 2939 |
| (WY) | 1980 | 1986 | 1997 | 1978 | 1998 | 1994 | 1984 | 1978 | 1972 | 1975 | 1985 | 1975 |
| MIN | 82.6 | 113 | 183 | 197 | 396 | 248 | 434 | 197 | 82.0 | 104 | 89.5 | 60.2 |
| (WY) | 1999 | 1992 | 1999 | 1981 | 1999 | 1981 | 1999 | 1999 | 1999 | 1999 | 1999 | 1998 |

| SUMMARY STATISTICS | FOR 1998 CALENDAR YEAR | FOR 1999 WATER YEAR | FOR 1998 CALENDAR YEAR | FOR 1999 WATER YEAR | FOR 1998 CALENDAR YEAR | FOR 1999 WATER YEAR |
|--------------------------|------------------------|---------------------|------------------------|---------------------|------------------------|---------------------|
| ANNUAL TOTAL | 618194 | 142326 | | | | |
| ANNUAL MEAN | 1694 | 390 | | | 1140 | |
| HIGHEST ANNUAL MEAN | | | | | 1859 | 1998 |
| LOWEST ANNUAL MEAN | | | | | 265 | 1981 |
| HIGHEST DAILY MEAN | 16400 | Feb 7 | 6200 | Mar 18 | 25000 | Jun 23 1972 |
| LOWEST DAILY MEAN | 53 | Oct 4 | 47 | Aug 7 | 47 | Sep 18 1991 |
| ANNUAL SEVEN-DAY MINIMUM | 55 | Sep 29 | 50 | Aug 7 | 50 | Aug 7 1999 |
| INSTANTANEOUS PEAK FLOW | | | 6640 | Mar 18 | 29900 | Jun 23 1972 |
| INSTANTANEOUS PEAK STAGE | | | 17.93 | Mar 18 | 29.22 | Jun 23 1972 |
| INSTANTANEOUS LOW FLOW | | | 45 | Aug 7 | 45 | Aug 7 1999 |
| ANNUAL RUNOFF (CFSM) | 1.57 | | .36 | | 1.05 | |
| ANNUAL RUNOFF (INCHES) | 21.27 | | 4.90 | | 14.33 | |
| 10 PERCENT EXCEEDS | 5720 | | 702 | | 2670 | |
| 50 PERCENT EXCEEDS | 377 | | 167 | | 607 | |
| 90 PERCENT EXCEEDS | 66 | | 65 | | 119 | |

e Estimated.

