# 01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV

Potomac Basin
North Branch Potomac Subbasin

LOCATION.--Lat 39°26'42.4", long 79°06'38.9" referenced to North American Datum of 1983, Mineral County, WV, Hydrologic Unit 02070002, on right bank at highway bridge at Barnum, W. Va., 0.4 mi upstream from Polly Run, and 4.0 mi southwest of Piedmont, W. Va., and at mile 59.4.

DRAINAGE AREA.--266 $mi^2$.

## SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1966 to September 1985, October 1985 to September 2003 (operated as a partial-record station only), October 2003 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,151.82 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good below 5,000 $ft^3/s$, and fair above. Prior to July 1981 regulation at low flow by Stony River Reservoir, 39 mi upstream from station (see station 01595200). Since July 1981 complete regulation by Jennings Randolph Lake, 1.5 mi upstream from station, capacity 96,600 acre-ft. U.S. Army Corps of Engineers satellite collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,030 $ft^3/s$, May 16, gage height, 7.35 ft; minimum discharge, 140 $ft^3/s$, Sept. 25.

**01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV—Continued**

**DISCHARGE, CUBIC FEET PER SECOND**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
**DAILY MEAN VALUES**

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 190 | 213 | 244 | 700 | 504 | 502 | 327 | 804 | 1,210 | 314 | 286 | 225 |
| 2 | 190 | 213 | 246 | 577 | 645 | 503 | 290 | 557 | 1,250 | 314 | 291 | 225 |
| 3 | 190 | 213 | 251 | 490 | 645 | 503 | 277 | 589 | 816 | 315 | 286 | 225 |
| 4 | 190 | 213 | 250 | 429 | 646 | 515 | 284 | 637 | 1,820 | 318 | 286 | 225 |
| 5 | 190 | 193 | 250 | 383 | 649 | 1,470 | 283 | 575 | 2,990 | 321 | 286 | 225 |
| 6 | 190 | 180 | 250 | 383 | 889 | 2,060 | 285 | 540 | 1,780 | 319 | 286 | 225 |
| 7 | 353 | 179 | 250 | 568 | 1,330 | 2,010 | 286 | 499 | 764 | 495 | 286 | 225 |
| 8 | 438 | 179 | 251 | 705 | 1,520 | 1,400 | 286 | 444 | 534 | 782 | 286 | 224 |
| 9 | 283 | 180 | 258 | 705 | 1,510 | 859 | 286 | 733 | 464 | 780 | 285 | 225 |
| 10 | 190 | 179 | 904 | 705 | 1,300 | 662 | 286 | 2,190 | 446 | 482 | 284 | 225 |
| 11 | 193 | 179 | 1,510 | 943 | 1,120 | 606 | 286 | 3,160 | 386 | 301 | 249 | 225 |
| 12 | 192 | 180 | 1,500 | 1,130 | 1,120 | 549 | 286 | 3,600 | 338 | 300 | 222 | 225 |
| 13 | 731 | 182 | 1,670 | 1,130 | 1,000 | 510 | 286 | 2,500 | 335 | 300 | 222 | 224 |
| 14 | 633 | 179 | 1,790 | 1,130 | 793 | 510 | 286 | 1,590 | 334 | 300 | 222 | 222 |
| 15 | 186 | 177 | 1,480 | 933 | 713 | 510 | 286 | 1,220 | 334 | 300 | 222 | 222 |
| 16 | 347 | 187 | 1,470 | 795 | 711 | 510 | 286 | 3,330 | 385 | 301 | 222 | 223 |
| 17 | 262 | 193 | 1,450 | 794 | 711 | 510 | 286 | 2,230 | 775 | 294 | 222 | 224 |
| 18 | 254 | 193 | 1,430 | 619 | 711 | 515 | 284 | 1,210 | 801 | 286 | 222 | 223 |
| 19 | 215 | 193 | 1,090 | 498 | 588 | 526 | 497 | 1,520 | 467 | 286 | 221 | 223 |
| 20 | 175 | 193 | 862 | 497 | 504 | 817 | 511 | 1,790 | 316 | 286 | 227 | 739 |
| 21 | 174 | 193 | 769 | 494 | 504 | 1,000 | 379 | 2,000 | 303 | 286 | 232 | 632 |
| 22 | 174 | 193 | 703 | 385 | 504 | 879 | 1,100 | 2,310 | 386 | 286 | 231 | 219 |
| 23 | 174 | 193 | 704 | 306 | 504 | 795 | 1,320 | 1,380 | 398 | 282 | 231 | 219 |
| 24 | 176 | 193 | 705 | 306 | 504 | 794 | 730 | 423 | 345 | 276 | 231 | 219 |
| 25 | 177 | 193 | 705 | 306 | 504 | 611 | 495 | 420 | 329 | 281 | 231 | 200 |
| 26 | 179 | 194 | 705 | 306 | 507 | 504 | 618 | 420 | 319 | 289 | 231 | 208 |
| 27 | 177 | 193 | 705 | 306 | 510 | 504 | 757 | 548 | 318 | 289 | 231 | 210 |
| 28 | 177 | 222 | 705 | 306 | 505 | 407 | 981 | 622 | 315 | 288 | 236 | 209 |
| 29 | 177 | 244 | 705 | 308 | 500 | 335 | 988 | 621 | 314 | 287 | 228 | 207 |
| 30 | 199 | 244 | 705 | 310 | --- | 327 | 825 | 619 | 314 | 286 | 225 | 207 |
| 31 | 213 | --- | 703 | 310 | --- | 327 | --- | 905 | --- | 286 | 225 | --- |
| Total | 7,589 | 5,860 | 25,220 | 17,757 | 22,151 | 22,530 | 14,377 | 39,986 | 19,886 | 10,530 | 7,645 | 7,529 |
| Mean | 245 | 195 | 814 | 573 | 764 | 727 | 479 | 1,290 | 663 | 340 | 247 | 251 |
| Max | 731 | 244 | 1,790 | 1,130 | 1,520 | 2,060 | 1,320 | 3,600 | 2,990 | 782 | 291 | 739 |
| Min | 174 | 177 | 244 | 306 | 500 | 327 | 277 | 420 | 303 | 276 | 221 | 200 |
| Cfsm | 0.92 | 0.73 | 3.06 | 2.15 | 2.87 | 2.73 | 1.80 | 4.85 | 2.49 | 1.28 | 0.93 | 0.94 |
| In. | 1.06 | 0.82 | 3.53 | 2.48 | 3.10 | 3.15 | 2.01 | 5.59 | 2.78 | 1.47 | 1.07 | 1.05 |

**Monthend contents, in acre-feet, in Jennings Randolph Lake (contents on Sept. 30, 2007 75,600 acre-feet). Records furnished by U.S. Army Corp of Engineers.**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 65,400 | 63,700 | 72,500 | 74,200 | 74,900 | 89,300 | 95,500 | 96,100 | 93,800 | 90,300 | 80,400 | 68,700 |

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 – 1985, 2004 – 2008 BY WATER YEAR (WY)**

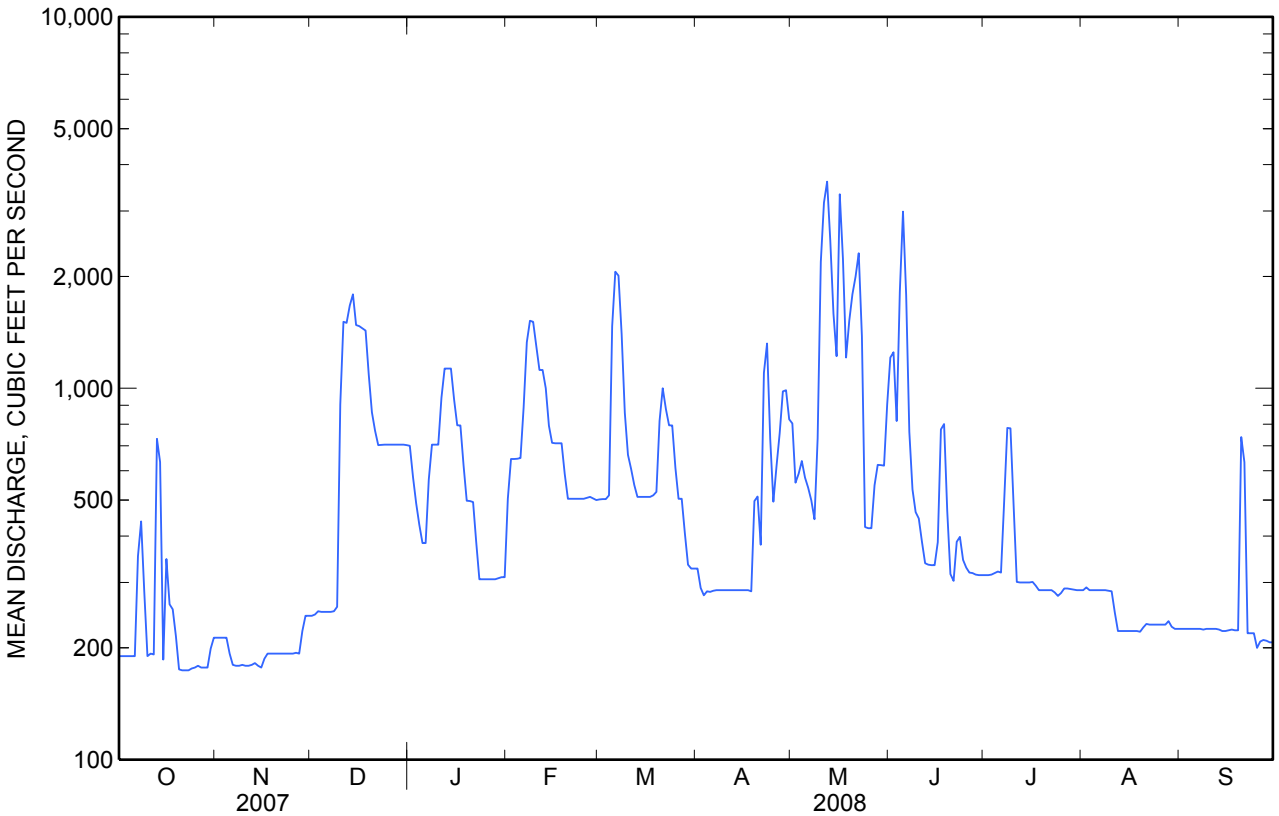
| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mean | 299 | 404 | 666 | 611 | 702 | 1,037 | 829 | 632 | 429 | 255 | 225 | 212 |
| Max | 1,035 | 1,070 | 1,746 | 1,219 | 1,246 | 2,001 | 1,645 | 1,290 | 1,149 | 985 | 551 | 546 |
| (WY) | (1977) | (1973) | (1973) | (1974) | (1979) | (1967) | (1970) | (2008) | (1981) | (1978) | (1980) | (1971) |
| Min | 28.8 | 150 | 269 | 108 | 216 | 307 | 357 | 105 | 69.1 | 41.3 | 66.5 | 29.1 |
| (WY) | (1969) | (1975) | (2007) | (1981) | (1978) | (2006) | (1968) | (1982) | (1969) | (1968) | (1968) | (1968) |

**01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV—Continued**

**SUMMARY STATISTICS**

| | Calendar Year 2007 | | Water Year 2008 | | Water Years 1966 – 1985, 2004 – 2008 | |
|---|---|---|---|---|---|---|
| **Annual total** | 160,234 | | 201,060 | | | |
| **Annual mean** | 439 | | 549 | | 526 | |
| **Annual mean‡** | 437 | | 539 | | 528 | |
| **Highest annual mean** | | | | | 690 | 1973 |
| **Lowest annual mean** | | | | | 318 | 1969 |
| **Highest daily mean** | 2,090 | Apr 16 | 3,600 | May 12 | 10,900 | Jul 3, 1978 |
| **Lowest daily mean** | 141 | Sep 27 | 174 | Oct 21[a] | 10 | Oct 1, 1968 |
| **Annual seven-day minimum** | 173 | Jun 28 | 176 | Oct 20 | 11 | Sep 27, 1968 |
| **Maximum peak flow** | | | 5,030 | May 16 | [b]27,100 | Jul 3, 1978 |
| **Maximum peak stage** | | | 7.35 | May 16 | 13.37 | Jul 3, 1978 |
| **Instantaneous low flow** | | | 140 | Sep 25 | 0.91 | Aug 12, 1981 |
| **Annual runoff (cfsm)** | 1.65 | | 2.07 | | 1.98 | |
| **Annual runoff (cfsm) ‡** | 1.64 | | 2.03 | | 1.98 | |
| **Annual runoff (inches)** | 22.41 | | 28.12 | | 26.85 | |
| **Annual runoff (inches) ‡** | 22.30 | | 27.60 | | 26.95 | |
| **10 percent exceeds** | 1,070 | | 1,150 | | 1,160 | |
| **50 percent exceeds** | 262 | | 320 | | 313 | |
| **90 percent exceeds** | 174 | | 193 | | 82 | |

‡ Adjusted for change in reservoir contents since October 1981.

[a] Oct. 21-23.

[b] From rating curve extended above 8,000 ft³/s on basis of slope-area measurement of peak flow.