



2005 Water Year  
NESHAMINY CREEK BASIN  
01464750 Neshaminy Creek near Rushland, PA

Latitude: 40° 15 ' 37"

Longitude: 075° 02 ' 07"

Hydrologic Unit Code: 02040201

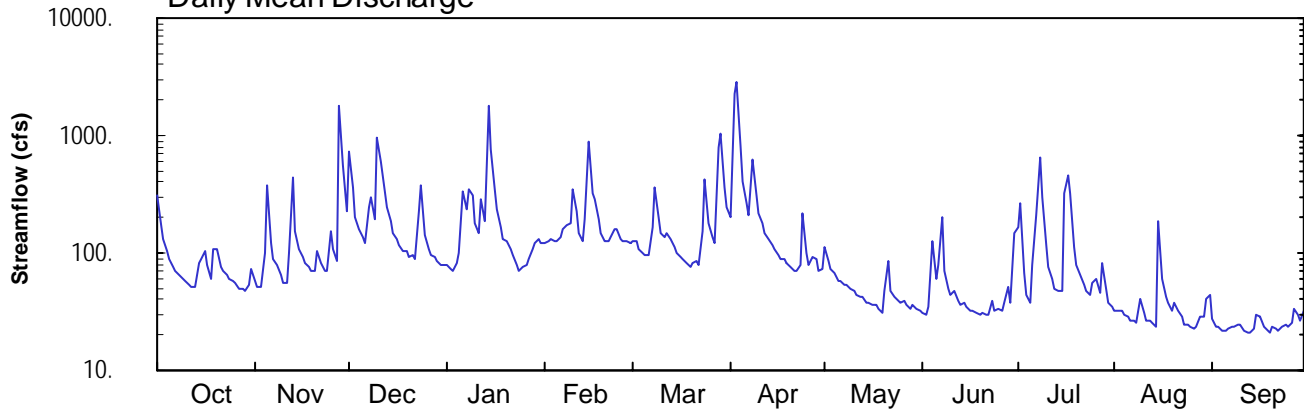
Bucks County

Datum:

feet

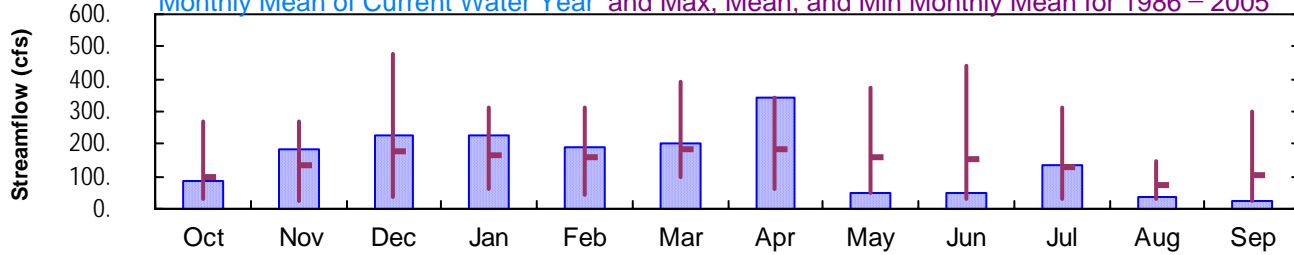
Drainage Area: 91. mi<sup>2</sup>

### Daily Mean Discharge

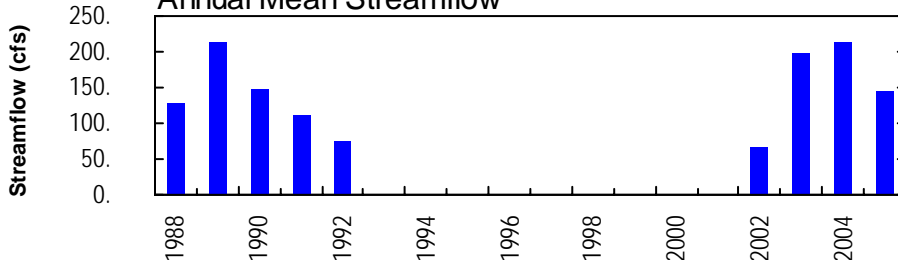


### Monthly Statistics

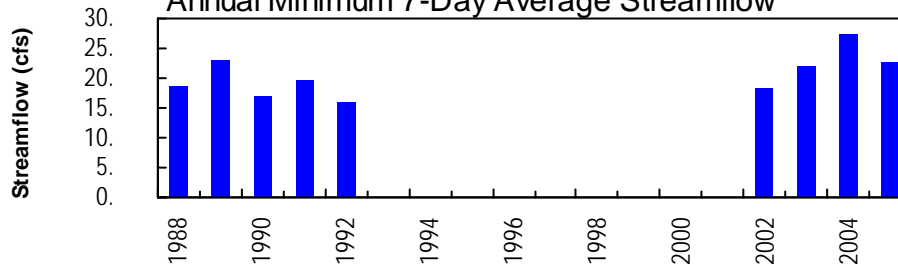
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1986 – 2005



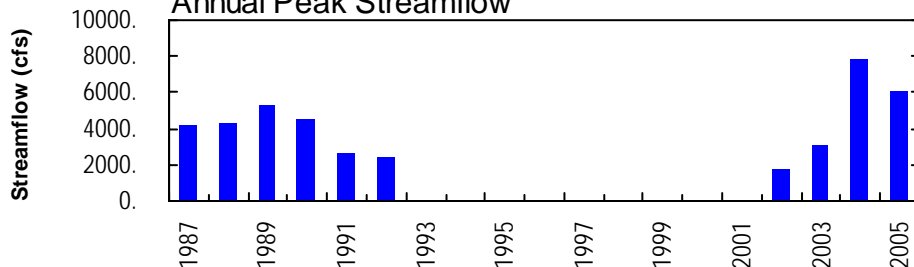
### Annual Mean Streamflow



### Annual Minimum 7-Day Average Streamflow



### Annual Peak Streamflow



01464750-Neshaminy Creek near Rushland

## NESHAMINY CREEK BASIN

## 01464750 NESHAMINY CREEK NEAR RUSHLAND, PA

**LOCATION.**--Lat 40°15'37", long 75°02'07", Bucks County, Hydrologic Unit 02040201, on left bank at bridge on Rushland Road, 2,000 ft upstream from confluence with Little Neshaminy Creek.

**DRAINAGE AREA.**--91.0 mi<sup>2</sup>.

**PERIOD OF RECORD.**--December 1986 to September 1992; October 2001 to current year.

**REVISED RECORDS.**--WDR PA-02-1: 1988-92 (P).

**GAGE.**--Water-stage recorder and crest-stage gage. Elevation of gage is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

**REMARKS.**--Records good except those greater than 916 ft<sup>3</sup>/s and those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station. Flow regulated by Lake Galena (Peace Valley Reservoir) and diversion for municipal supply by Forest Park Water Company on North Branch Neshaminy Creek.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 1,950 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) |
|---------|------|---------------------------------|---------------------|---------|------|---------------------------------|---------------------|
| Nov. 28 | 1115 | 3,950                           | 10.04               | Apr. 2  | 2130 | *5,990                          | *12.93              |
| Jan. 14 | 1345 | 3,690                           | 9.65                | July 16 | 2100 | 2,400                           | 7.70                |
| Mar. 28 | 2230 | 2,780                           | 8.27                |         |      |                                 |                     |

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     | 315  | 57   | 720  | 79   | e120 | 125  | 199   | 113  | 31   | 166  | 32   | 28   |
| 2     | 176  | 53   | 356  | 73   | e125 | 125  | 2290  | 84   | 30   | 265  | 32   | 23   |
| 3     | 130  | 51   | 204  | 71   | e130 | 108  | 2890  | 73   | 34   | 69   | 32   | 23   |
| 4     | 104  | 99   | 159  | 82   | 124  | 98   | 838   | 66   | 124  | 45   | 30   | 21   |
| 5     | 87   | 384  | 137  | 100  | 124  | 95   | 414   | 58   | 61   | 38   | 29   | 22   |
| 6     | 75   | 120  | 122  | 339  | 137  | 97   | 269   | 57   | 78   | 81   | 27   | 23   |
| 7     | 70   | 88   | 248  | 240  | 161  | 165  | 212   | 54   | 202  | 207  | 26   | 24   |
| 8     | 64   | 78   | 303  | 349  | 170  | 363  | 615   | 54   | 69   | 645  | 26   | 23   |
| 9     | 59   | 64   | 193  | 305  | 180  | 206  | 305   | 50   | 50   | 299  | 41   | 25   |
| 10    | 58   | 56   | 968  | 182  | 344  | 148  | 217   | 48   | 44   | 116  | 31   | 24   |
| 11    | 54   | 55   | 600  | 149  | 226  | 136  | 180   | 45   | 48   | 75   | 26   | 21   |
| 12    | 52   | 99   | 332  | 284  | 146  | 145  | 150   | 43   | 40   | 59   | 26   | 21   |
| 13    | 51   | 434  | 243  | 188  | 125  | 132  | 132   | 42   | 36   | 49   | 25   | 21   |
| 14    | 83   | 156  | 188  | 1760 | 191  | 113  | 118   | 37   | 38   | 48   | 23   | 22   |
| 15    | 89   | 110  | 149  | 761  | 886  | 101  | 107   | 38   | 35   | 47   | 186  | 29   |
| 16    | 104  | 94   | 130  | 351  | 319  | 94   | 96    | 36   | 32   | 318  | 59   | 29   |
| 17    | 79   | 83   | 118  | 235  | 281  | 88   | 90    | 36   | 33   | 466  | 42   | 23   |
| 18    | 60   | 76   | 105  | 166  | 195  | 84   | 88    | 34   | 30   | 327  | 38   | 23   |
| 19    | 109  | 71   | 102  | e130 | 149  | 77   | 82    | 31   | 30   | 113  | 32   | 21   |
| 20    | 108  | 70   | 92   | e125 | 128  | 82   | 77    | 48   | 31   | 80   | 37   | 23   |
| 21    | 77   | 105  | 95   | e110 | 128  | 87   | 71    | 85   | 30   | 64   | 32   | 22   |
| 22    | 70   | 81   | 90   | e95  | 138  | 79   | 71    | 48   | 29   | 54   | 28   | 22   |
| 23    | 65   | 71   | 223  | e80  | 160  | 151  | 78    | 42   | 39   | 48   | 25   | 24   |
| 24    | 61   | 72   | 370  | e70  | 157  | 420  | 218   | 40   | 32   | 43   | 24   | 25   |
| 25    | 58   | 156  | 143  | e75  | 131  | 176  | 101   | 37   | 33   | 56   | 23   | 24   |
| 26    | 56   | 109  | 108  | e80  | 125  | 136  | 80    | 39   | 32   | 59   | 23   | 25   |
| 27    | 50   | 84   | 98   | e90  | 124  | 120  | 93    | 36   | 38   | 46   | 23   | 33   |
| 28    | 50   | 1810 | 94   | e110 | 120  | 804  | 87    | 34   | 51   | 82   | 29   | 30   |
| 29    | 48   | 551  | 86   | e120 | ---  | 1040 | 71    | 37   | 38   | 49   | 28   | 26   |
| 30    | 54   | 230  | 80   | e130 | ---  | 368  | 73    | 34   | 145  | 38   | 40   | 32   |
| 31    | 72   | ---  | 78   | e120 | ---  | 248  | ---   | 32   | ---  | 35   | 44   | ---  |
| TOTAL | 2588 | 5567 | 6934 | 7049 | 5344 | 6211 | 10312 | 1511 | 1543 | 4087 | 1119 | 732  |
| MEAN  | 83.5 | 186  | 224  | 227  | 191  | 200  | 344   | 48.7 | 51.4 | 132  | 36.1 | 24.4 |
| MAX   | 315  | 1810 | 968  | 1760 | 886  | 1040 | 2890  | 113  | 202  | 645  | 186  | 33   |
| MIN   | 48   | 51   | 78   | 70   | 120  | 77   | 71    | 31   | 29   | 35   | 23   | 21   |
| CFSM  | 0.92 | 2.04 | 2.46 | 2.50 | 2.10 | 2.20 | 3.78  | 0.54 | 0.57 | 1.45 | 0.40 | 0.27 |
| IN.   | 1.06 | 2.28 | 2.83 | 2.88 | 2.18 | 2.54 | 4.22  | 0.62 | 0.63 | 1.67 | 0.46 | 0.30 |

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

|      | 95.9 | 136  | 178  | 166  | 157  | 183  | 183  | 159  | 150  | 130  | 75.6 | 106  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 95.9 | 136  | 178  | 166  | 157  | 183  | 183  | 159  | 150  | 130  | 75.6 | 106  |
| MAX  | 270  | 270  | 477  | 311  | 315  | 391  | 344  | 374  | 443  | 315  | 149  | 298  |
| (WY) | 2004 | 2004 | 2004 | 1990 | 1988 | 2003 | 2005 | 1989 | 1989 | 1989 | 2003 | 2004 |
| MIN  | 28.2 | 22.6 | 37.1 | 62.5 | 41.2 | 95.7 | 61.9 | 48.7 | 30.4 | 32.5 | 32.2 | 24.4 |
| (WY) | 2002 | 2002 | 2002 | 2002 | 2002 | 1990 | 1988 | 2005 | 1991 | 1992 | 1987 | 2005 |

e Estimated.

## NESHAMINY CREEK BASIN

01464750 NESHAMINY CREEK NEAR RUSHLAND, PA--Continued

| SUMMARY STATISTICS       | FOR 2004 CALENDAR YEAR |        | FOR 2005 WATER YEAR |                    | FOR PERIOD OF DAILY RECORD |             |
|--------------------------|------------------------|--------|---------------------|--------------------|----------------------------|-------------|
| ANNUAL TOTAL             | 62116                  |        | 52997               |                    | 144                        |             |
| ANNUAL MEAN              | 170                    |        | 145                 |                    | 214                        |             |
| HIGHEST ANNUAL MEAN      |                        |        |                     |                    | 66.4                       |             |
| LOWEST ANNUAL MEAN       |                        |        |                     |                    | 1989, 2004                 |             |
| HIGHEST DAILY MEAN       | 3850                   | Sep 29 | 2890                | Apr 3              | 3850                       | Sep 29 2004 |
| LOWEST DAILY MEAN        | 22                     | Jul 11 | 21                  | Sep 4 <sup>a</sup> | 15                         | Aug 14 1987 |
| ANNUAL SEVEN-DAY MINIMUM | 27                     | Jul 5  | 22                  | Sep 8              | 16                         | Sep 14 1992 |
| MAXIMUM PEAK FLOW        |                        |        | b5990               |                    | b7750                      |             |
| MAXIMUM PEAK STAGE       |                        |        | 12.93               |                    | 15.04                      |             |
| ANNUAL RUNOFF (CFSM)     | 1.87                   |        | 1.60                |                    | 1.58                       |             |
| ANNUAL RUNOFF (INCHES)   | 25.39                  |        | 21.66               |                    | 21.52                      |             |
| 10 PERCENT EXCEEDS       | 333                    |        | 301                 |                    | 303                        |             |
| 50 PERCENT EXCEEDS       | 90                     |        | 80                  |                    | 72                         |             |
| 90 PERCENT EXCEEDS       | 40                     |        | 28                  |                    | 25                         |             |

<sup>a</sup> Also Sept. 11-13, 19.<sup>b</sup> From rating curve extended above 916 ft<sup>3</sup>/s based on slope-area measurement at gage height 10.33 ft.