

**CONESTOGA RIVER BASIN**

**01576529 UNNAMED TRIBUTARY TO BIG SPRING RUN NEAR LAMPETER, PA**

**LOCATION.**--Lat 39°59'57", long 76°15'52", Lancaster County, Hydrologic Unit 02050306, on left bank 70 ft upstream from bridge on Morningside Drive near the intersection with Long Rifle Road and Gypsy Hill Road, and 1.0 mi northwest of Lampeter.

**DRAINAGE AREA.**--1.42 mi<sup>2</sup>.

**WATER-DISCHARGE RECORDS**

**PERIOD OF RECORD.**--October 1993 to July 2001 (discontinued).

**GAGE.**--Water-stage recorder. Datum of gage is 290.25 ft above sea level.

**REMARKS.**--No estimated daily discharges. Records fair except for period, June 22 to July 31, which is poor. Satellite telemetry at station.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 140 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) |
|---------|------|---------------------------------|---------------------|--|------|---------------------------------|---------------------|
| June 22 | 2000 | *584                            | *6.73               | No other peak greater than base discharge. |      |                                 |                     |

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES**

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB  | MAR  | APR  | MAY   | JUN   | JUL   | AUG | SEP |
|-------|-------|-------|-------|-------|------|------|------|-------|-------|-------|-----|-----|
| 1     | .95   | .44   | .42   | .59   | 2.3  | 1.3  | 2.2  | 1.1   | 1.1   | 1.4   | --- | --- |
| 2     | .93   | .41   | .40   | .58   | 1.8  | 1.2  | 1.9  | 1.1   | 1.2   | 1.1   | --- | --- |
| 3     | .89   | .39   | .39   | .56   | 1.4  | 1.2  | 1.7  | 1.0   | .89   | .99   | --- | --- |
| 4     | .84   | .39   | .36   | .55   | 1.3  | 1.4  | 1.6  | 1.0   | .78   | 1.0   | --- | --- |
| 5     | .89   | .39   | .36   | .55   | 1.5  | 1.8  | 1.5  | .98   | .79   | 1.7   | --- | --- |
| 6     | .82   | .39   | .37   | .55   | 1.4  | 1.4  | 1.7  | .98   | .76   | 1.1   | --- | --- |
| 7     | .75   | .39   | .37   | .55   | 1.4  | 1.9  | 1.5  | .96   | .76   | .96   | --- | --- |
| 8     | .72   | .39   | .37   | .55   | 1.3  | 1.7  | 1.5  | .93   | .71   | 1.1   | --- | --- |
| 9     | .72   | .39   | .37   | .53   | 3.4  | 1.5  | 1.6  | .94   | .70   | 1.4   | --- | --- |
| 10    | .72   | .91   | .37   | .51   | 4.9  | 1.4  | 1.5  | .89   | .68   | 1.2   | --- | --- |
| 11    | .70   | .42   | .37   | .50   | 1.8  | 1.3  | 1.8  | .89   | .66   | 1.1   | --- | --- |
| 12    | .68   | .39   | .37   | .50   | 1.6  | 1.2  | 1.6  | .88   | .64   | .90   | --- | --- |
| 13    | .68   | .38   | .34   | .50   | 1.5  | 3.7  | 1.5  | .83   | .63   | .84   | --- | --- |
| 14    | .68   | .61   | 3.7   | .50   | 1.5  | 1.7  | 1.4  | .79   | .61   | .83   | --- | --- |
| 15    | .68   | .44   | .77   | .90   | 1.5  | 1.5  | 1.5  | .79   | .62   | .79   | --- | --- |
| 16    | .65   | .42   | .93   | .66   | 1.8  | 1.7  | 2.5  | .80   | 2.0   | .76   | --- | --- |
| 17    | .73   | .41   | 12    | .61   | 2.1  | 1.9  | 1.9  | .80   | 1.3   | .74   | --- | --- |
| 18    | .86   | .39   | 1.6   | .58   | 1.4  | 1.7  | 3.1  | .80   | .68   | .72   | --- | --- |
| 19    | .66   | .39   | 1.3   | 8.8   | 1.4  | 1.5  | 1.9  | .80   | .61   | .70   | --- | --- |
| 20    | .61   | .39   | 1.1   | 4.1   | 1.4  | 1.4  | 1.7  | .80   | 1.5   | .67   | --- | --- |
| 21    | .61   | .38   | .94   | 1.6   | 1.3  | 3.9  | 1.6  | 1.7   | 1.0   | .65   | --- | --- |
| 22    | .61   | .37   | .91   | 1.2   | 1.3  | 2.3  | 1.5  | 1.1   | 43    | .62   | --- | --- |
| 23    | .61   | .37   | .80   | 1.1   | 1.3  | 1.8  | 1.5  | 1.3   | 6.9   | .60   | --- | --- |
| 24    | .58   | .37   | .77   | 1.0   | 1.2  | 1.6  | 1.4  | .85   | 2.3   | .60   | --- | --- |
| 25    | .53   | .37   | .75   | .92   | 1.7  | 1.4  | 1.3  | .85   | 1.6   | .59   | --- | --- |
| 26    | .52   | 1.1   | .68   | .85   | 1.6  | 1.4  | 1.3  | 2.8   | 1.5   | .60   | --- | --- |
| 27    | .49   | .51   | .68   | .82   | 1.4  | 1.4  | 1.2  | 2.0   | 1.4   | .59   | --- | --- |
| 28    | .47   | .45   | .66   | .77   | 1.3  | 1.4  | 1.2  | 1.1   | 1.3   | .54   | --- | --- |
| 29    | .47   | .46   | .71   | .73   | ---  | 1.7  | 1.1  | .95   | 1.2   | .55   | --- | --- |
| 30    | .47   | .50   | .66   | 5.3   | ---  | 11   | 1.1  | .89   | 1.3   | .57   | --- | --- |
| 31    | .45   | ---   | .62   | 5.3   | ---  | 2.7  | ---  | .83   | ---   | .55   | --- | --- |
| TOTAL | 20.97 | 13.61 | 34.44 | 42.76 | 47.8 | 63.0 | 48.8 | 32.43 | 79.12 | 26.46 | --- | --- |
| MEAN  | .68   | .45   | 1.11  | 1.38  | 1.71 | 2.03 | 1.63 | 1.05  | 2.64  | .85   | --- | --- |
| MAX   | .95   | 1.1   | 12    | 8.8   | 4.9  | 11   | 3.1  | 2.8   | 43    | 1.7   | --- | --- |
| MIN   | .45   | .37   | .34   | .50   | 1.2  | 1.2  | 1.1  | .79   | .61   | .54   | --- | --- |
| CFSM  | .48   | .32   | .78   | .97   | 1.20 | 1.43 | 1.15 | .74   | 1.86  | .60   | --- | --- |
| IN.   | .55   | .36   | .90   | 1.12  | 1.25 | 1.65 | 1.28 | .85   | 2.07  | .69   | --- | --- |

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2001, BY WATER YEAR (WY)**

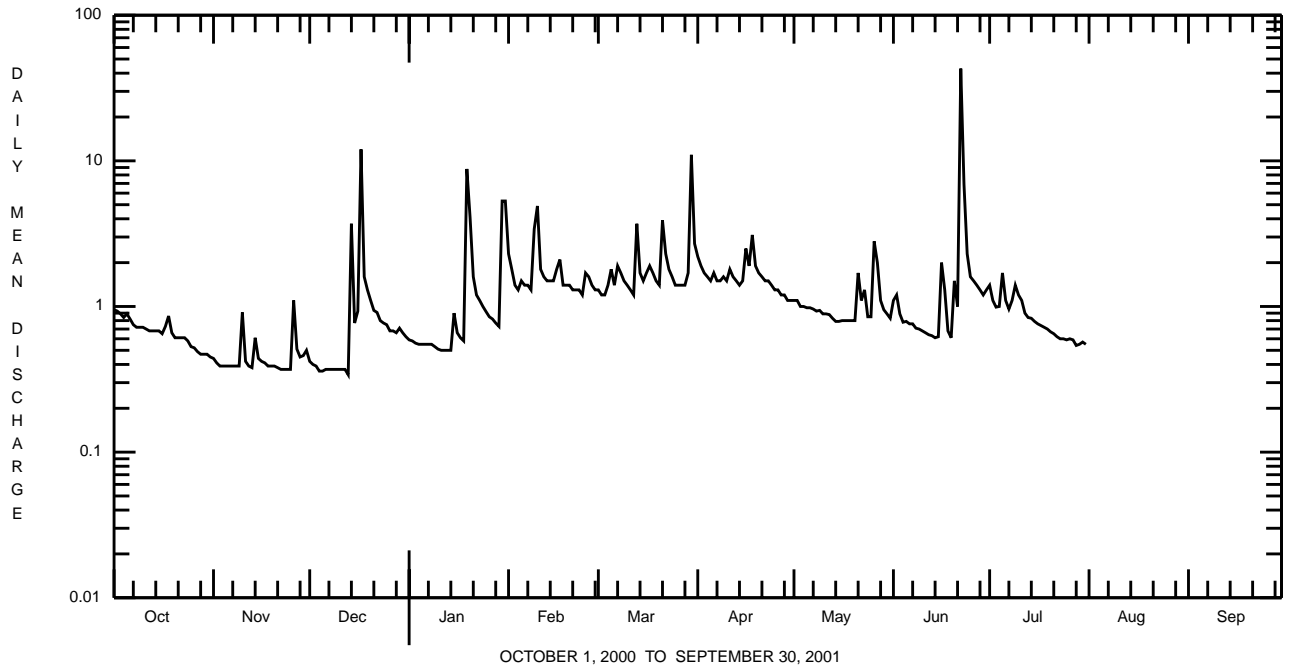
|      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 1.17 | 1.42 | 1.78 | 2.02 | 1.93 | 3.26 | 1.93 | 1.46 | 1.54 | 1.13 | .86  | 1.19 |
| MAX  | 3.90 | 3.51 | 4.89 | 5.02 | 2.54 | 9.49 | 3.03 | 2.53 | 2.82 | 2.59 | 2.70 | 2.67 |
| (WY) | 1997 | 1997 | 1997 | 1996 | 1994 | 1994 | 1996 | 1996 | 1996 | 1996 | 1996 | 1999 |
| MIN  | .19  | .27  | .23  | .77  | 1.09 | 1.47 | 1.01 | .61  | .36  | .20  | .19  | .20  |
| (WY) | 1998 | 1999 | 1999 | 2000 | 1999 | 1999 | 1995 | 1999 | 1999 | 1999 | 1999 | 1995 |

CONESTOGA RIVER BASIN

01576529 UNNAMED TRIBUTARY TO BIG SPRING RUN NEAR LAMPETER, PA--Continued

| SUMMARY STATISTICS       | FOR 2000 CALENDAR YEAR |        | FOR 2001 WATER YEAR |        | WATER YEARS 1994 - 2001 |             |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|-------------|
| ANNUAL TOTAL             | 476.99                 |        |                     |        |                         |             |
| ANNUAL MEAN              | 1.30                   |        |                     |        | 1.69                    |             |
| HIGHEST ANNUAL MEAN      |                        |        |                     |        | 2.58                    |             |
| LOWEST ANNUAL MEAN       |                        |        |                     |        | .90                     |             |
| HIGHEST DAILY MEAN       | 21                     | Mar 21 | 43                  | Jun 22 | 56                      | Sep 16 1999 |
| LOWEST DAILY MEAN        | .34                    | Dec 13 | .34                 | Dec 13 | .07                     | Aug 24 1995 |
| ANNUAL SEVEN-DAY MINIMUM | .37                    | Dec 7  | .37                 | Dec 7  | .08                     | Sep 10 1995 |
| MAXIMUM PEAK FLOW        |                        |        | a584                | Jun 22 | a584                    | Jun 22 2001 |
| MAXIMUM PEAK STAGE       |                        |        | 6.73                | Jun 22 | 6.73                    | Jun 22 2001 |
| INSTANTANEOUS LOW FLOW   |                        |        | .34                 | Dec 4b | .05                     | Aug 25 1995 |
| ANNUAL RUNOFF (CFSM)     | .92                    |        |                     |        | 1.19                    |             |
| ANNUAL RUNOFF (INCHES)   | 12.50                  |        |                     |        | 16.15                   |             |
| 10 PERCENT EXCEEDS       | 2.2                    |        | 1.8                 |        | 2.7                     |             |
| 50 PERCENT EXCEEDS       | .84                    |        | .90                 |        | 1.1                     |             |
| 90 PERCENT EXCEEDS       | .42                    |        | .41                 |        | .27                     |             |

a From rating curve extended above 140 ft<sup>3</sup>/s on basis of calculation of flow through culvert at gage heights 4.60, 5.30, 6.00 and 6.65 ft.  
 b Also Dec. 5, 12-14.



## CONESTOGA RIVER BASIN

## 01576529 UNNAMED TRIBUTARY TO BIG SPRING RUN NEAR LAMPETER, PA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1993 to July 2001 (discontinued).

INSTRUMENTATION.--Automatic pumping sampler since December 1993.

REMARKS.--Fixed-time, base flow, and stormflow samples collected at streamflow control. Constituent values for stormflow water quality are for discharge-weighted composite samples. Samples with two dates are composited samples; sample time is the composite start time, discharge is the mean for the composited period. Some values for "dissolved" parameters exceed values for the corresponding "total" parameter. These results are within the limits of analytical precision and methods.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

| DATE     | TIME | AGENCY<br>ANA-<br>LYZING<br>SAMPLE<br>(CODE<br>NUMBER)<br>(00028) | AGENCY<br>COL-<br>LECTING<br>SAMPLE<br>(CODE<br>NUMBER)<br>(00027) | DIS-<br>CHARGE,<br>IN<br>CUBIC<br>FEET<br>PER<br>SECOND<br>(00060) | DIS-<br>CHARGE,<br>INST.<br>CUBIC<br>FEET<br>PER<br>SECOND<br>(00061) | TUR-<br>BID-<br>ITY<br>(NTU)<br>(00076) | OXYGEN,<br>DIS-<br>SOLVED<br>(MG/L)<br>(00300) | PH<br>WATER<br>WHOLE<br>FIELD<br>(STAND-<br>ARD<br>UNITS)<br>(00400) | SPE-<br>CIFIC<br>CON-<br>DUCT-<br>ANCE<br>(µS/CM)<br>(00095) | TEMPER-<br>ATURE<br>WATER<br>(DEG C)<br>(00010) | NITRO-<br>GEN,<br>AM-<br>MONIA<br>DIS-<br>SOLVED<br>(MG/L)<br>(00608) | NITRO-<br>GEN,AM-<br>MONIA +<br>ORGANIC<br>DIS.<br>(MG/L)<br>AS N)<br>(00623) |
|----------|------|---|--|--|---|---|--|--|--|---|---|---|
| OCT 2000 |      |   |  |  |   |   |  |  |  |   |   |   |
| 04...    | 0810 | 80020   | 1028   | --   | .82   | 2.0                                     | 9.5  | 7.5  | 758  | 14.3  | <.020   | .19   |
| 16...    | 0910 | 80020   | 1028   | --   | .64   | 2.2                                     | 9.2  | 7.3  | 740  | 12.9  | <.041   | .17   |
| 24...    | 0800 | 80020   | 1028   | --   | .58   | 2.0                                     | 9.9  | 7.7  | 739  | 9.8   | <.041   | .19   |
| NOV      |      |   |  |  |   |   |  |  |  |   |   |   |
| 02...    | 0735 | 80020   | 1028   | --   | .44   | 2.9                                     | 12.6   | 7.3  | 724  | 7.0   | <.041   | .26   |
| 14...    | 0820 | 80020   | 1028   | --   | .48   | --                                      | 10.5   | 7.2  | 702  | 10.4  | <.041   | .27   |
| 14...    | 0821 | 80020   | 1028   | --   | .48   | --                                      | 10.5   | 7.2  | 702  | 10.4  | <.041   | .34   |
| DEC      |      |   |  |  |   |   |  |  |  |   |   |   |
| 12...    | 0815 | 80020   | 1028   | --   | .39   | .1                                      | 12.5   | 8.5  | 738  | 5.8   | <.041   | .29   |
| JAN 2001 |      |   |  |  |   |   |  |  |  |   |   |   |
| 09...    | 0810 | 80020   | 1028   | --   | .52   | .7                                      | 14.5   | --   | 842  | 2.3   | <.041   | .24   |
| JAN      |      |   |  |  |   |   |  |  |  |   |   |   |
| 30-30    | 1137 | 80020   | 1028   | 9.5  | --  | --                                      | --   | --   | --   | --  | 1.08  | 3.1   |
| JAN      |      |   |  |  |   |   |  |  |  |   |   |   |
| 30-30    | 1138 | 80020   | 1028   | 9.5  | --  | --                                      | --   | --   | --   | --  | 1.22  | 3.1   |
| FEB      |      |   |  |  |   |   |  |  |  |   |   |   |
| 13...    | 0820 | 80020   | 1028   | --   | 1.5   | 5.7                                     | 14.4   | 8.3  | 759  | 5.2   | <.041   | .18   |
| MAR      |      |   |  |  |   |   |  |  |  |   |   |   |
| 12...    | 0800 | 80020   | 1028   | --   | 1.2   | 6.1                                     | 14.2   | 7.6  | 763  | 3.6   | <.041   | .24   |
| 12...    | 0801 | 80020   | 1028   | --   | 1.2   | 6.1                                     | 14.2   | 7.6  | 763  | 3.6   | <.041   | .20   |
| MAR      |      |   |  |  |   |   |  |  |  |   |   |   |
| 13-13    | 0052 | 80020   | 1028   | 7.5  | --  | --                                      | --   | --   | --   | --  | 1.20  | 2.7   |
| MAR      |      |   |  |  |   |   |  |  |  |   |   |   |
| 21-21    | 1352 | 80020   | 1028   | 7.9  | --  | --                                      | --   | --   | --   | --  | .178  | 1.3   |
| 29...    | 0830 | 80020   | 1028   | --   | 1.3   | 5.2                                     | 14.1   | 7.6  | 680  | 5.7   | <.041   | E.06  |
| APR      |      |   |  |  |   |   |  |  |  |   |   |   |
| 10...    | 0830 | 80020   | 1028   | --   | 1.4   | 4.1                                     | 10.3   | 7.9  | 716  | 11.5  | <.041   | .29   |
| 19...    | 0815 | 80020   | 1028   | --   | 1.8   | 5.2                                     | 12.1   | 7.1  | 759  | 6.2   | <.041   | .33   |
| MAY      |      |   |  |  |   |   |  |  |  |   |   |   |
| 01...    | 0800 | 80020   | 1028   | --   | 1.2   | 3.8                                     | 10.4   | 7.0  | 718  | 10.7  | <.041   | .26   |
| 09...    | 0730 | 80020   | 1028   | --   | .93   | 6.3                                     | 9.1  | 7.0  | 695  | 13.0  | .041  | .30   |
| 09...    | 0731 | 80020   | 1028   | --   | .93   | 6.3                                     | 9.1  | 7.0  | 695  | 13.0  | .044  | .30   |
| 09...    | 0830 | 80020   | 1028   | --   | --  | --                                      | --   | --   | --   | --  | --  | --  |
| 16...    | 1030 | 80020   | 1028   | --   | .84   | 5.5                                     | 12.6   | 7.6  | 610  | 15.4  | E.025   | .30   |
| MAY      |      |   |  |  |   |   |  |  |  |   |   |   |
| 23-23    | 0007 | 80020   | 1028   | 3.5  | --  | --                                      | --   | --   | --   | --  | .112  | 1.1   |
| MAY      |      |   |  |  |   |   |  |  |  |   |   |   |
| 26-26    | 0752 | 80020   | 1028   | 5.1  | --  | --                                      | --   | --   | --   | --  | .161  | 1.1   |
| MAY      |      |   |  |  |   |   |  |  |  |   |   |   |
| 26-26    | 0753 | 80020   | 1028   | 5.1  | --  | --                                      | --   | --   | --   | --  | .163  | 1.1   |
| 29...    | 0845 | 80020   | 1028   | --   | .93   | 4.6                                     | 9.7  | 7.2  | 735  | 14.7  | E.022   | .40   |
| JUN      |      |   |  |  |   |   |  |  |  |   |   |   |
| 01-02    | 2152 | 80020   | 1028   | 3.8  | --  | --                                      | --   | --   | --   | --  | .081  | .62   |
| 07...    | 0815 | 80020   | 1028   | --   | .80   | 12                                      | 8.5  | 7.3  | 743  | 16.2  | <.040   | .27   |
| 19...    | 0800 | 80020   | 1028   | --   | .64   | 6.5                                     | 8.6  | 7.5  | 745  | 16.9  | <.040   | .29   |
| JUN      |      |   |  |  |   |   |  |  |  |   |   |   |
| 20-20    | 2022 | 80020   | 1028   | 6.4  | --  | --                                      | --   | --   | --   | --  | .197  | 1.5   |
| JUN      |      |   |  |  |   |   |  |  |  |   |   |   |
| 22-23    | 1822 | 80020   | 1028   | 88   | --  | --                                      | --   | --   | --   | --  | .212  | 1.1   |
| JUL      |      |   |  |  |   |   |  |  |  |   |   |   |
| 03...    | 0800 | 80020   | 1028   | --   | 1.0   | 4.6                                     | 11.2   | 7.4  | 712  | 15.3  | <.040   | .21   |

## CONESTOGA RIVER BASIN

## 01576529 UNNAMED TRIBUTARY TO BIG SPRING RUN NEAR LAMPETER, PA--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

| DATE     | NITRO-<br>GEN, AM-<br>MONIA +<br>ORGANIC<br>TOTAL<br>(MG/L<br>AS N)<br>(00625) | NITRO-<br>GEN,<br>NO2+NO3<br>DIS-<br>SOLVED<br>(MG/L<br>AS N)<br>(00631) | NITRO-<br>GEN,<br>NITRITE<br>DIS-<br>SOLVED<br>(MG/L<br>AS N)<br>(00613) | PHOS-<br>PHORUS<br>DIS-<br>SOLVED<br>(MG/L<br>AS P)<br>(00666) | PHOS-<br>PHORUS<br>ORTHO,<br>DIS-<br>SOLVED<br>(MG/L<br>AS P)<br>(00671) | PHOS-<br>PHORUS<br>TOTAL<br>(MG/L<br>AS P)<br>(00665) | PERI-<br>PHYTON<br>BIOMASS<br>ASH<br>WEIGHT<br>G/SQ M<br>(00572) | PERI-<br>PHYTON<br>BIOMASS<br>DRY<br>WEIGHT<br>G/SQ M<br>(00573) | PHEO-<br>PHYTIN<br>A,<br>PERI-<br>PHYTON<br>(MG/M <sup>2</sup> )<br>(62359) | FECAL<br>STREP,<br>KF STRP<br>WATER<br>(COL/<br>100 ML)<br>(31673) | CHLOR-A<br>PERI-<br>PHYTON<br>CHROMO-<br>GRAPHIC<br>FLUOROM<br>(MG/M <sup>2</sup> )<br>(70957) | SEDI-<br>MENT,<br>SUS-<br>PENDEED<br>(MG/L)<br>(80154) |
|----------|--|--|--|--|--|---|--|--|---|--|--|--|
| OCT 2000 |  |  |  |  |  |   |  |  |   |  |  |  |
| 04...    | .23  | 8.63   | .015   | .011   | --   | .021  | --   | --   | --  | --   | --   | 4  |
| 16...    | .29  | 8.44   | .029   | .014   | --   | .026  | --   | --   | --  | --   | --   | 4  |
| 24...    | .23  | 9.03   | .016   | .024   | --   | .039  | --   | --   | --  | 510  | --   | 9  |
| NOV      |  |  |  |  |  |   |  |  |   |  |  |  |
| 02...    | .22  | 9.11   | .018   | .013   | --   | .020  | --   | --   | --  | --   | --   | 10   |
| 14...    | .26  | 8.93   | .027   | .053   | --   | .060  | --   | --   | --  | 580k   | --   | 14   |
| 14...    | .26  | 8.84   | .027   | .051   | --   | .060  | --   | --   | --  | --   | --   | 8  |
| DEC      |  |  |  |  |  |   |  |  |   |  |  |  |
| 12...    | .23  | 9.23   | .014   | .008   | --   | .016  | --   | --   | --  | 540  | --   | 23   |
| JAN 2001 |  |  |  |  |  |   |  |  |   |  |  |  |
| 09...    | .22  | 9.31   | .014   | .014   | --   | .018  | --   | --   | --  | 310  | --   | 32   |
| JAN      |  |  |  |  |  |   |  |  |   |  |  |  |
| 30-30    | 4.2  | 2.69   | .034   | .782   | .674   | 1.10  | --   | --   | --  | --   | --   | 138  |
| JAN      |  |  |  |  |  |   |  |  |   |  |  |  |
| 30-30    | 4.2  | 2.77   | .034   | .826   | .727   | 1.13  | --   | --   | --  | --   | --   | 133  |
| FEB      |  |  |  |  |  |   |  |  |   |  |  |  |
| 13...    | .30  | 9.53   | .016   | .031   | --   | .044  | --   | --   | --  | 210  | --   | 2  |
| MAR      |  |  |  |  |  |   |  |  |   |  |  |  |
| 12...    | .35  | 9.87   | .021   | .011   | E.010  | .034  | --   | --   | --  | 56   | --   | 3  |
| 12...    | .32  | 10.1   | .020   | .012   | E.010  | .033  | --   | --   | --  | --   | --   | 6  |
| MAR      |  |  |  |  |  |   |  |  |   |  |  |  |
| 13-13    | 4.4  | 4.93   | .066   | .283   | .239   | 1.12  | --   | --   | --  | --   | --   | 315  |
| MAR      |  |  |  |  |  |   |  |  |   |  |  |  |
| 21-21    | 4.2  | 3.79   | .039   | .230   | .202   | 1.65  | --   | --   | --  | --   | --   | 612  |
| 29...    | .42  | 9.50   | .015   | .009   | --   | .045  | --   | --   | --  | --   | --   | 18   |
| APR      |  |  |  |  |  |   |  |  |   |  |  |  |
| 10...    | .40  | 8.46   | .037   | .016   | --   | .031  | --   | --   | --  | --   | --   | 21   |
| 19...    | .43  | 8.75   | .021   | .020   | --   | .045  | --   | --   | --  | --   | --   | 2  |
| MAY      |  |  |  |  |  |   |  |  |   |  |  |  |
| 01...    | .31  | 9.16   | .045   | .020   | --   | .031  | --   | --   | --  | 340  | --   | 21   |
| 09...    | .40  | 8.58   | .051   | .024   | --   | .039  | --   | --   | --  | --   | --   | 9  |
| 09...    | .40  | 8.79   | .051   | .024   | --   | .040  | --   | --   | --  | --   | --   | 14   |
| 09...    | --   | --   | --   | --   | --   | --  | 458.1  | 484.3  | 41  | --   | 102  | --   |
| 16...    | .43  | 7.35   | .015   | .010   | --   | .025  | --   | --   | --  | --   | --   | 6  |
| MAY      |  |  |  |  |  |   |  |  |   |  |  |  |
| 23-23    | 1.8  | 6.40   | .090   | .158   | .097   | .361  | --   | --   | --  | --   | --   | 98   |
| MAY      |  |  |  |  |  |   |  |  |   |  |  |  |
| 26-26    | 2.0  | 3.88   | .115   | .193   | .152   | .390  | --   | --   | --  | --   | --   | 108  |
| MAY      |  |  |  |  |  |   |  |  |   |  |  |  |
| 26-26    | 1.8  | 3.92   | .115   | .197   | .155   | .386  | --   | --   | --  | --   | --   | 107  |
| 29...    | .48  | 7.82   | .050   | .042   | --   | .055  | --   | --   | --  | 400  | --   | 15   |
| JUN      |  |  |  |  |  |   |  |  |   |  |  |  |
| 01-02    | 1.6  | 5.35   | .077   | .128   | .101   | .397  | --   | --   | --  | --   | --   | 136  |
| 07...    | .39  | 7.42   | .034   | .015   | --   | .036  | --   | --   | --  | --   | --   | 16   |
| 19...    | .37  | 7.59   | .029   | .035   | .021   | .048  | --   | --   | --  | 3200   | --   | 74   |
| JUN      |  |  |  |  |  |   |  |  |   |  |  |  |
| 20-20    | 2.6  | 3.95   | .123   | .386   | .321   | .669  | --   | --   | --  | --   | --   | 126  |
| JUN      |  |  |  |  |  |   |  |  |   |  |  |  |
| 22-23    | 6.8  | 3.49   | .110   | .536   | .454   | 3.68  | --   | --   | --  | --   | --   | 1930   |
| JUL      |  |  |  |  |  |   |  |  |   |  |  |  |
| 03...    | .38  | 8.05   | .030   | .009   | <.020  | .019  | --   | --   | --  | --   | --   | 10   |

## CONESTOGA RIVER BASIN

## 01576529 UNNAMED TRIBUTARY TO BIG SPRING RUN NEAR LAMPETER, PA--Continued

BIOLOGICAL DATA, MAY 2000 TO MAY 2001  
BENTHIC MACROINVERTEBRATES

REMARKS.--Rapid bioassessments for benthic macroinvertebrates were conducted in May 2000 to May 2001. Samples represent counts per 200-organism (approximate) subsamples.

| Benthic Macroinvertebrate              | May<br>2000 | Sept.<br>2000 | Sept.<br>2000 | May<br>2001 |
|--|-------------|---------------|---------------|-------------|
| Platyhelminthes                        | --          | --            | --            | --          |
| Turbellaria (FLATWORMS)                | --          | --            | --            | --          |
| Tricladida                             | --          | --            | --            | --          |
| Planariidae                            | 4           | 7             | 5             | 9           |
| Annelida                               | --          | --            | --            | --          |
| Oligochaeta (AQUATIC EARTHWORMS)       | --          | --            | --            | --          |
| Haplotaenidae                          | --          | --            | --            | --          |
| Tubificidae                            | --          | --            | --            | 3           |
| <u>Limnodrilus hoffmeisteri</u>        | 1           | --            | --            | --          |
| <u>Limnodrilus</u> sp                  | --          | 30            | 17            | 4           |
| Naididae                               | --          | --            | --            | 1           |
| <u>Nais bretscheri</u>                 | 31          | --            | --            | --          |
| <u>Nais</u> sp                         | --          | --            | --            | 4           |
| <u>Ophidonais serpentina</u>           | 1           | --            | --            | --          |
| Mollusca                               | --          | --            | --            | --          |
| Gastropoda (SNAILS)                    | --          | --            | --            | --          |
| Basommatophora                         | --          | --            | --            | --          |
| Physidae                               | --          | 1             | 1             | --          |
| Arthropoda                             | --          | --            | --            | --          |
| Crustacea                              | --          | --            | --            | --          |
| Ostracoda (SEED SHRIMP)                | --          | 11            | 15            | --          |
| Isopoda (AQUATIC SOWBUGS)              | --          | --            | --            | --          |
| Asellidae                              | --          | --            | --            | --          |
| Caecidotea sp                          | 12          | --            | 1             | 6           |
| Amphipoda (SCUDS)                      | --          | --            | 1             | --          |
| Gammaridae                             | --          | --            | --            | --          |
| <u>Gammarus pseudolimnaeus</u>         | 38          | --            | --            | 6           |
| <u>Gammarus</u> sp                     | --          | 2             | 2             | --          |
| Arachnoidea                            | --          | --            | --            | --          |
| Hydracarina (WATER MITES)              | --          | --            | --            | --          |
| Sperchonidae                           | --          | --            | --            | --          |
| <u>Sperchon</u> sp                     | --          | --            | --            | 1           |
| Insecta                                | --          | --            | --            | --          |
| Pterygota                              | --          | --            | --            | --          |
| Ephemeroptera (MAYFLIES)               | --          | --            | --            | --          |
| Baetidae                               | --          | 1             | 1             | --          |
| <u>Baetis flavistriga</u>              | 1           | 2             | --            | --          |
| Heptageniidae                          | --          | --            | --            | --          |
| <u>Stenacron</u> sp                    | --          | --            | 2             | --          |
| Odonata                                | --          | --            | --            | --          |
| Coenagrionidae (DAMSELFLIES)           | 1           | --            | --            | --          |
| <u>Enallagma</u> sp                    | --          | 1             | --            | 1           |
| Hemiptera (TRUE BUGS)                  | --          | --            | --            | --          |
| Corixidae (WATER BOATMEN)              | --          | --            | --            | --          |
| <u>Hesperocorixa</u> sp                | --          | 16            | 18            | --          |
| Lepidoptera (AQUATIC CATERPILLARS)     | --          | 1             | --            | --          |
| Coleoptera (BEETLES)                   | --          | --            | --            | --          |
| Haliplidae (CRAWLING WATER BEETLES)    | --          | --            | --            | --          |
| <u>Peltodytes</u> sp                   | --          | --            | 2             | --          |
| Dytiscidae (PREDACEOUS DIVING BEETLES) | --          | --            | --            | --          |
| <u>Agabus</u> sp                       | 5           | --            | --            | 1           |
| Psephenidae (RIFLE BEETLES)            | --          | --            | --            | --          |
| <u>Ectopria</u> sp                     | --          | 5             | 4             | 2           |
| Elmidae                                | --          | --            | --            | --          |
| <u>Dubiraphia</u> sp                   | --          | 4             | 4             | 3           |
| <u>Optioservus</u> sp                  | 3           | 4             | 3             | 4           |
| <u>Stenelmis</u> sp                    | 4           | 13            | 7             | 10          |

## CONESTOGA RIVER BASIN

## 01576529 UNNAMED TRIBUTARY TO BIG SPRING RUN NEAR LAMPETER, PA--Continued

BIOLOGICAL DATA, MAY 2000 TO MAY 2001  
 BENTHIC MACROINVERTEBRATES--Continued

| Benthic Macroinvertebrate        | May<br>2000 | Sept.<br>2000 | Sept.<br>2000 | May<br>2001 |
|----------------------------------|-------------|---------------|---------------|-------------|
| Trichoptera (CADDIS FLIES)       | --          | --            | --            | --          |
| Hydropsychidae                   | --          | --            | --            | --          |
| <u>Cheumatopsyche</u> sp         | 1           | 2             | 9             | --          |
| Hydroptilidae                    | --          | --            | --            | --          |
| <u>Hydroptila</u> sp             | --          | --            | --            | 2           |
| Diptera                          | --          | --            | --            | --          |
| Ceratopogonidae (BITING MIDGES)  | --          | --            | --            | --          |
| <u>Bezzia/Palpomyia</u> sp       | --          | --            | --            | --          |
| <u>Culicoides</u> sp             | --          | 1             | --            | --          |
| <u>Monohalea</u> sp              | --          | --            | --            | 1           |
| Simuliidae (BLACK FLIES)         | --          | --            | --            | --          |
| <u>Simulium vittatum complex</u> | 26          | --            | --            | --          |
| <u>Simulium</u> sp               | 5           | 26            | 43            | 61          |
| Empididae                        | --          | --            | --            | --          |
| <u>Hemerodromia</u> sp           | --          | --            | 2             | 1           |
| Tabanidae (HORSEFLIES)           | --          | --            | --            | --          |
| <u>Chrysops</u> sp               | --          | --            | --            | --          |
| Chironomidae (MIDGES)            | --          | --            | --            | --          |
| Tanypodinae                      | --          | --            | --            | --          |
| <u>Clinotanytus</u> sp           | --          | --            | --            | --          |
| <u>Procladius</u> sp             | --          | 2             | 3             | --          |
| <u>Thienemannimyia gr</u> sp     | --          | 9             | 6             | 2           |
| Orthoclaeniinae                  | --          | --            | --            | --          |
| <u>Corynoneura</u> sp            | --          | --            | 1             | --          |
| <u>Cricotopus bicinctus</u>      | 3           | --            | --            | --          |
| <u>Cricotopus trifascia gr</u>   | --          | --            | --            | 3           |
| <u>Cricotopus</u> sp             | 12          | --            | --            | --          |
| <u>Eukiefferiella</u> sp         | --          | --            | 1             | --          |
| <u>Orthocladus</u> sp            | 13          | --            | --            | 32          |
| <u>Parakiefferiella</u> sp       | --          | --            | --            | 18          |
| <u>Parametriocnemus</u> sp       | 2           | 1             | 2             | 5           |
| Chironominae                     | --          | --            | --            | --          |
| <u>Chironomus</u> sp             | --          | 8             | 7             | --          |
| <u>Cryptochironomus</u> sp       | 1           | 1             | 1             | 1           |
| <u>Dicrotendipes</u> sp          | 5           | --            | --            | 2           |
| <u>Micropsectra</u> sp           | 4           | --            | --            | 6           |
| <u>Paratendipes albimanus</u>    | 2           | --            | --            | --          |
| <u>Paratendipes</u> sp           | --          | 2             | 3             | 1           |
| <u>Polypedilum</u> sp            | --          | 3             | 1             | 1           |
| <u>Polypedilum flavum</u>        | 14          | --            | --            | --          |
| <u>Rheotanytarsus</u> sp         | 1           | 41            | 36            | 3           |
| <u>Stictochironomus</u> sp       | 3           | --            | --            | 1           |
| Total organisms                  | 193         | 194           | 198           | 195         |