



2005 Water Year
CONESTOGA RIVER BASIN
01576754 Conestoga River at Conestoga, PA

Latitude: 39° 56 ' 47"

Longitude: 076° 22 ' 05"

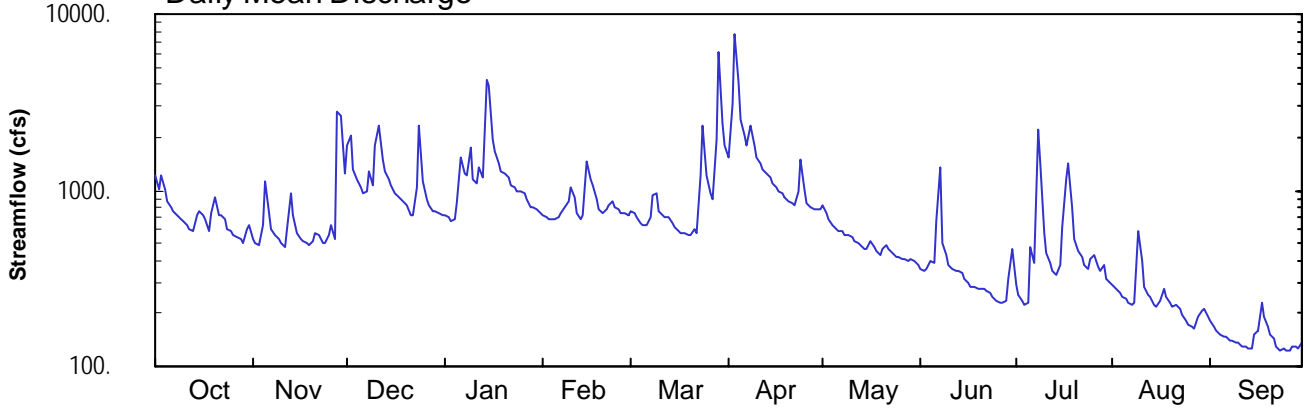
Hydrologic Unit Code: 02050306

Lancaster County

Datum: 180.45 feet

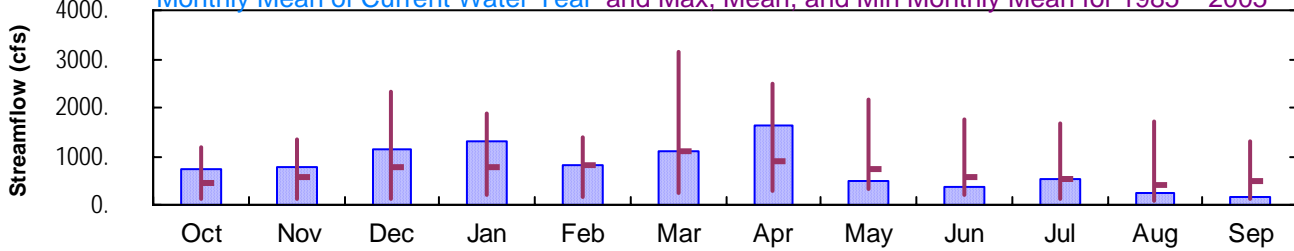
Drainage Area: 470. mi²

Daily Mean Discharge

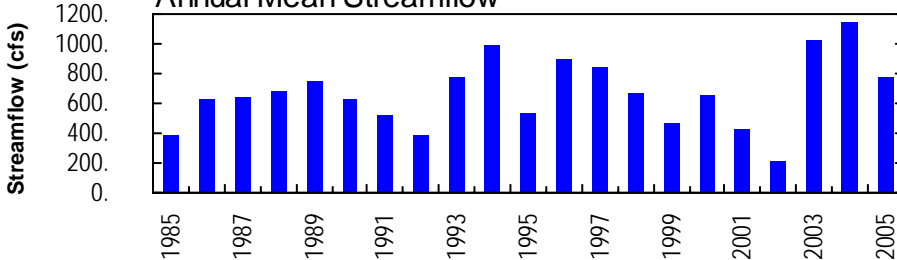


Monthly Statistics

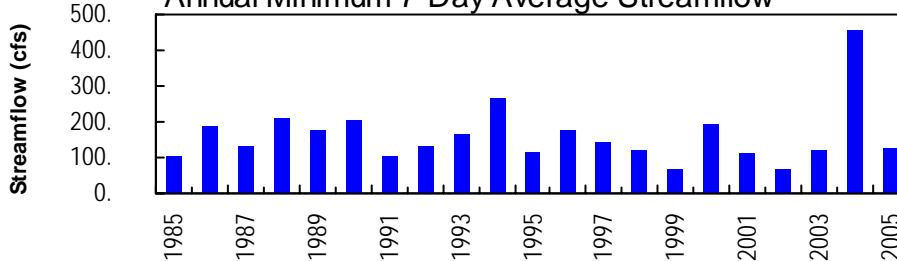
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1985 – 2005



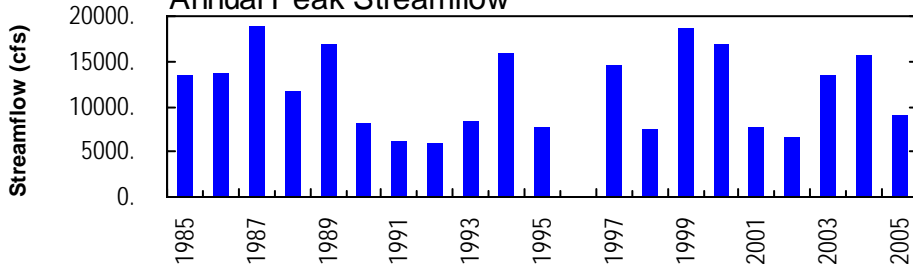
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



01576754-Conestoga Creek at Conestoga

CONESTOGA RIVER BASIN

01576754 CONESTOGA RIVER AT CONESTOGA, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 39°56'47", long 76°22'05", Lancaster County, Hydrologic Unit 02050306, on left bank on SR 3030, 1,500 ft downstream from Little Conestoga Creek, 1.0 mi west of Conestoga, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--470 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to current year.

REVISED RECORDS.--WDR PA-86-2: 1985(M).

GAGE.--Water-stage recorder. Datum of gage is 180.45 ft above National Geodetic Vertical Datum of 1929.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 6,600 ft³/s (revised) and maximum (*):

| Date | Time | Discharge ft ³ /s | Gage Height (ft) | Date | Time | Discharge ft ³ /s | Gage Height (ft) |
|---------|------|---------------------------------|---------------------|--------|------|---------------------------------|---------------------|
| Jan. 14 | 2345 | 7,920 | 7.79 | Apr. 3 | 1215 | *9,020 | *8.36 |
| Mar. 29 | 1000 | 8,710 | 8.18 | | | | |

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 | 1230 | 527 | 1810 | 729 | 730 | 764 | 1540 | 832 | 356 | 291 | 292 | 182 |
| 2 | 1010 | 502 | 2030 | 703 | 700 | 750 | 3070 | 733 | 347 | 258 | 278 | 169 |
| 3 | 1230 | 484 | 1310 | 673 | 683 | 699 | 7760 | 680 | 362 | 236 | 264 | 158 |
| 4 | 1020 | 640 | 1140 | 683 | 681 | 656 | 4140 | 639 | 398 | 225 | 250 | 150 |
| 5 | 864 | 1140 | 1030 | 852 | 686 | 635 | 2550 | 604 | 390 | 227 | 241 | 147 |
| 6 | 796 | 746 | 956 | 1550 | 709 | 642 | 2050 | 587 | 671 | 475 | 232 | 148 |
| 7 | 752 | 600 | 975 | 1250 | 749 | 706 | 1810 | 581 | 1360 | 391 | 223 | 141 |
| 8 | 717 | 550 | 1290 | 1220 | 794 | 936 | 2340 | 559 | 500 | 2240 | 230 | 139 |
| 9 | 686 | 522 | 1060 | 1760 | 871 | 954 | 1820 | 553 | 428 | 1410 | 583 | 137 |
| 10 | 664 | 496 | 1800 | 1160 | 1040 | 753 | 1540 | 536 | 375 | 568 | 398 | 135 |
| 11 | 638 | 482 | 2340 | 1080 | 916 | 715 | 1420 | 512 | 358 | 437 | 286 | 130 |
| 12 | 601 | 599 | 1500 | 1340 | 745 | 712 | 1310 | 500 | 349 | 383 | 257 | 131 |
| 13 | 580 | 968 | 1270 | 1180 | 693 | 695 | 1240 | 483 | 351 | 351 | 247 | 127 |
| 14 | 718 | 718 | 1160 | 4190 | 715 | 651 | 1170 | 467 | 338 | 333 | 221 | 127 |
| 15 | 769 | 572 | 1050 | 3920 | 1460 | 615 | 1090 | 466 | 317 | 376 | 218 | 152 |
| 16 | 726 | 533 | 968 | 1960 | 1150 | 590 | 1030 | 515 | 300 | 613 | 238 | 158 |
| 17 | 687 | 514 | 927 | 1680 | 1060 | 577 | 980 | 478 | 287 | 1160 | 277 | 233 |
| 18 | 592 | 506 | 887 | 1420 | 881 | 568 | 952 | 447 | 280 | 1420 | 251 | 193 |
| 19 | 740 | 495 | 848 | 1280 | 782 | 558 | 917 | 431 | 276 | 805 | 228 | 167 |
| 20 | 911 | 514 | 813 | 1250 | 741 | 562 | 875 | 464 | 273 | 528 | 218 | 151 |
| 21 | 715 | 574 | 725 | 1190 | 774 | 608 | 846 | 490 | 274 | 448 | 223 | 144 |
| 22 | 716 | 550 | 718 | 1080 | 821 | 574 | 812 | 458 | 270 | 416 | 211 | 130 |
| 23 | 685 | 505 | 1040 | e1050 | 860 | 1220 | 998 | 435 | 261 | 381 | 197 | 122 |
| 24 | 606 | 500 | 2300 | e1000 | 809 | 2350 | 1500 | 423 | 247 | 359 | 182 | 126 |
| 25 | 581 | 553 | 1130 | e980 | 774 | 1210 | 1020 | 419 | 239 | 408 | 174 | 122 |
| 26 | 559 | 630 | 896 | 960 | 742 | 970 | 841 | 408 | 231 | 425 | 169 | 123 |
| 27 | 542 | 526 | 824 | 897 | 741 | 891 | 792 | 402 | 230 | 363 | 165 | 129 |
| 28 | 530 | 2790 | 763 | 805 | 723 | 1940 | 791 | 393 | 235 | 350 | 192 | 130 |
| 29 | 502 | 2660 | 759 | 810 | --- | 6160 | 772 | 406 | 313 | 373 | 208 | 127 |
| 30 | 605 | 1260 | 739 | 790 | --- | 2380 | 772 | 394 | 461 | 318 | 211 | 137 |
| 31 | 640 | --- | 730 | 768 | --- | 1780 | --- | 376 | --- | 298 | 190 | --- |
| TOTAL | 22612 | 22656 | 35788 | 40210 | 23030 | 33821 | 48748 | 15671 | 11077 | 16866 | 7554 | 4365 |
| MEAN | 729 | 755 | 1154 | 1297 | 822 | 1091 | 1625 | 506 | 369 | 544 | 244 | 146 |
| MAX | 1230 | 2790 | 2340 | 4190 | 1460 | 6160 | 7760 | 832 | 1360 | 2240 | 583 | 233 |
| MIN | 502 | 482 | 718 | 673 | 681 | 558 | 772 | 376 | 230 | 225 | 165 | 122 |
| CFSM | 1.55 | 1.61 | 2.46 | 2.76 | 1.75 | 2.32 | 3.46 | 1.08 | 0.79 | 1.16 | 0.52 | 0.31 |
| IN. | 1.79 | 1.79 | 2.83 | 3.18 | 1.82 | 2.68 | 3.86 | 1.24 | 0.88 | 1.33 | 0.60 | 0.35 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2005, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 436 | 571 | 769 | 789 | 806 | 1082 | 888 | 715 | 570 | 529 | 395 | 478 |
| MAX | 1183 | 1348 | 2339 | 1887 | 1373 | 3145 | 2508 | 2148 | 1736 | 1693 | 1730 | 1318 |
| (WY) | 1997 | 1997 | 1997 | 1996 | 2004 | 1994 | 1993 | 1989 | 2003 | 2004 | 2004 | 2003 |
| MIN | 118 | 110 | 130 | 192 | 144 | 261 | 274 | 308 | 203 | 107 | 102 | 132 |
| (WY) | 2002 | 2002 | 2002 | 2002 | 2002 | 2002 | 1985 | 1999 | 1999 | 1999 | 2002 | 2002 |

e Estimated.

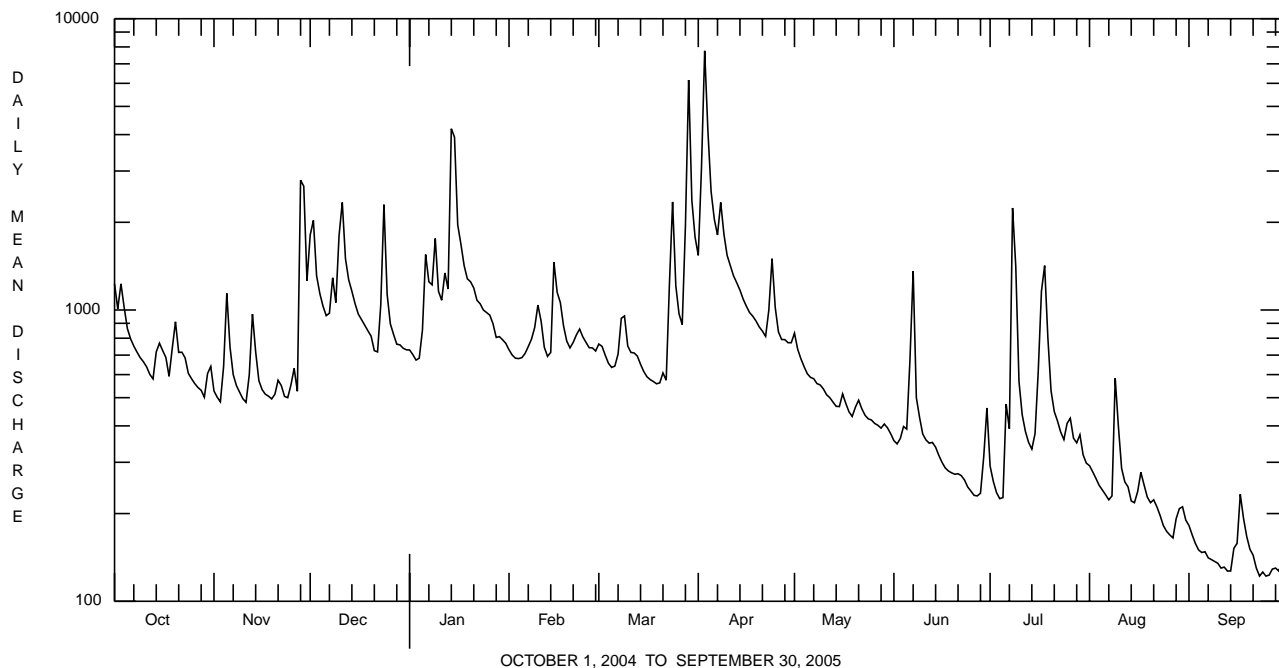
CONESTOGA RIVER BASIN

01576754 CONESTOGA RIVER AT CONESTOGA, PA--Continued

| SUMMARY STATISTICS | FOR 2004 CALENDAR YEAR | | FOR 2005 WATER YEAR | | WATER YEARS 1985 - 2005 | |
|--------------------------|------------------------|--------|---------------------|-----------|-------------------------|-------------|
| ANNUAL TOTAL | 383188 | | 282398 | | | |
| ANNUAL MEAN | 1047 | | 774 | | 668 | |
| HIGHEST ANNUAL MEAN | | | | | 1140 | 2004 |
| LOWEST ANNUAL MEAN | | | | | 217 | 2002 |
| HIGHEST DAILY MEAN | 10400 | Jul 28 | 7760 | Apr 3 | 14100 | Sep 17 1999 |
| LOWEST DAILY MEAN | 389 | Jul 11 | 122 | Sep 23,25 | 58 | Aug 7 1999 |
| ANNUAL SEVEN-DAY MINIMUM | a 456 | Jan 27 | 126 | Sep 23 | 65 | Sep 9 2002 |
| MAXIMUM PEAK FLOW | | | 9020 | Apr 3 | 19000 | Sep 9 1987 |
| MAXIMUM PEAK STAGE | | | 8.36 | Apr 3 | 14.37 | Sep 9 1987 |
| INSTANTANEOUS LOW FLOW | | | 111 | Sep 25 | 52 | Aug 7 1999 |
| ANNUAL RUNOFF (CFSM) | 2.23 | | 1.65 | | 1.42 | |
| ANNUAL RUNOFF (INCHES) | 30.33 | | 22.35 | | 19.32 | |
| 10 PERCENT EXCEEDS | 1570 | | 1380 | | 1250 | |
| 50 PERCENT EXCEEDS | 755 | | 635 | | 466 | |
| 90 PERCENT EXCEEDS | 502 | | 204 | | 175 | |

a Computed using estimated daily discharges.

e Estimated.



CONESTOGA RIVER BASIN

01576754 CONESTOGA RIVER AT CONESTOGA, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

| Date | 10/19/04 |
|-------------------------------------|----------|
| Benthic macroinvertebrate | Count |
| Platyhelminthes | |
| Turbellaria (FLATWORMS) | |
| Tricladida | |
| Planariidae | 4 |
| Mollusca | |
| Bivalvia (CLAMS) | |
| Veneroidea | |
| Corbiculidae | |
| <i>Corbicula fluminea</i> | 1 |
| Annelida | |
| Oligochaeta (AQUATIC EARTHWORMS) | |
| Tubificida | |
| Naididae | 14 |
| Arthropoda | |
| Acariformes | |
| Hydrachnidia (WATER MITES) | 3 |
| Insecta | |
| Ephemeroptera (MAYFLIES) | |
| Baetidae | |
| <i>Plauditus</i> | 1 |
| Heptageniidae | |
| <i>Stenacron</i> | 1 |
| <i>Stenonema</i> | 2 |
| Trichoptera (CADDISFLIES) | |
| Hydropsychidae | |
| <i>Cheumatopsyche</i> | 17 |
| <i>Hydropsyche</i> | 8 |
| Lepidoptera (MOTHS AND BUTTERFLIES) | |
| Pyralidae | |
| <i>Petrophila</i> | 6 |
| Coleoptera (BEETLES) | |
| Elmidae (RIFFLE BEETLES) | |
| <i>Stenelmis</i> | 13 |
| Psephenidae (WATER PENNIES) | |
| <i>Psephenus</i> | 1 |
| Diptera (TRUE FLIES) | |
| Chironomidae (MIDGES) | 63 |
| Simuliidae (BLACK FLIES) | |
| <i>Simulium</i> | 6 |
| Tipulidae (CRANE FLIES) | |
| <i>Antocha</i> | 2 |
| Total Organisms | 142 |
| Total Taxa | 15 |