



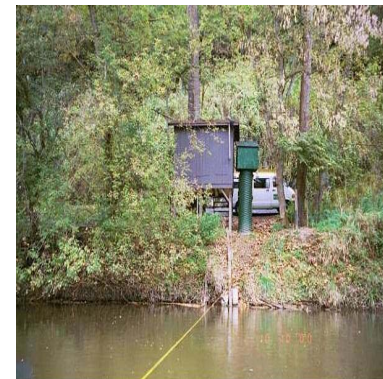
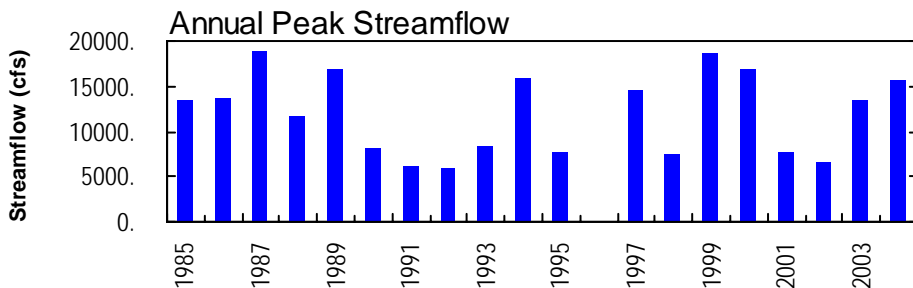
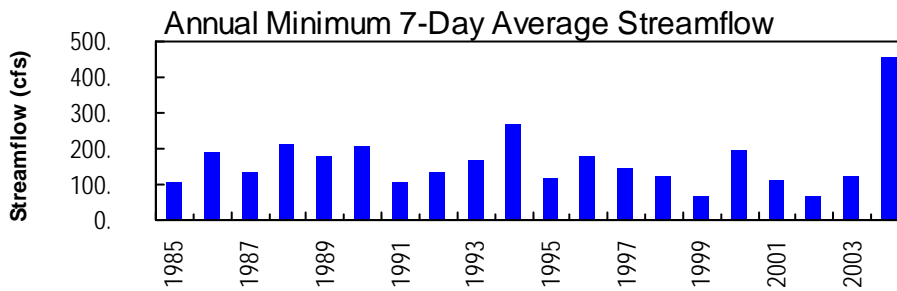
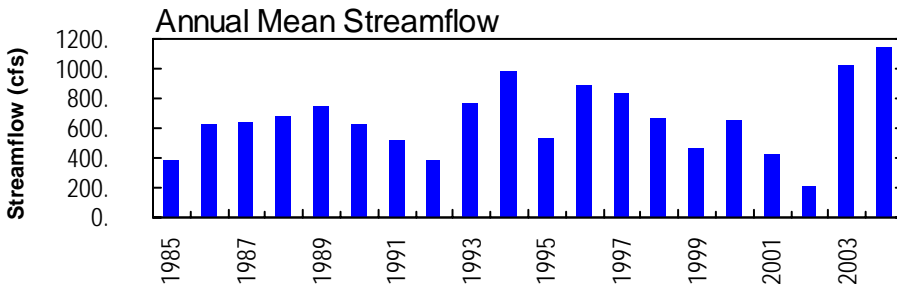
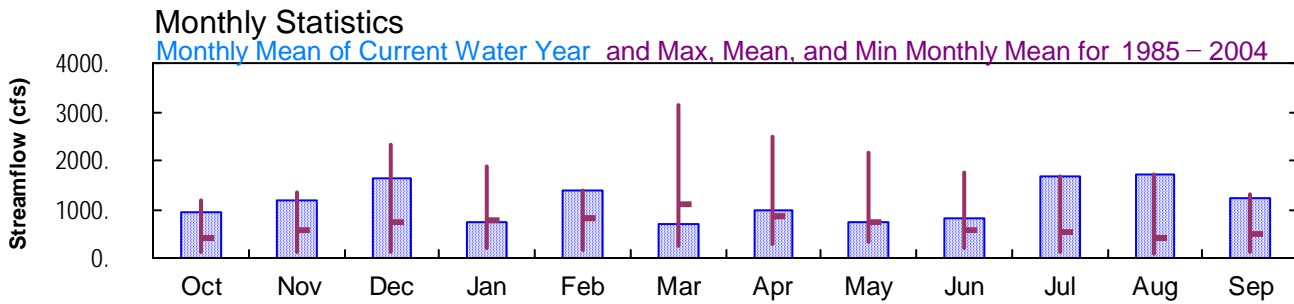
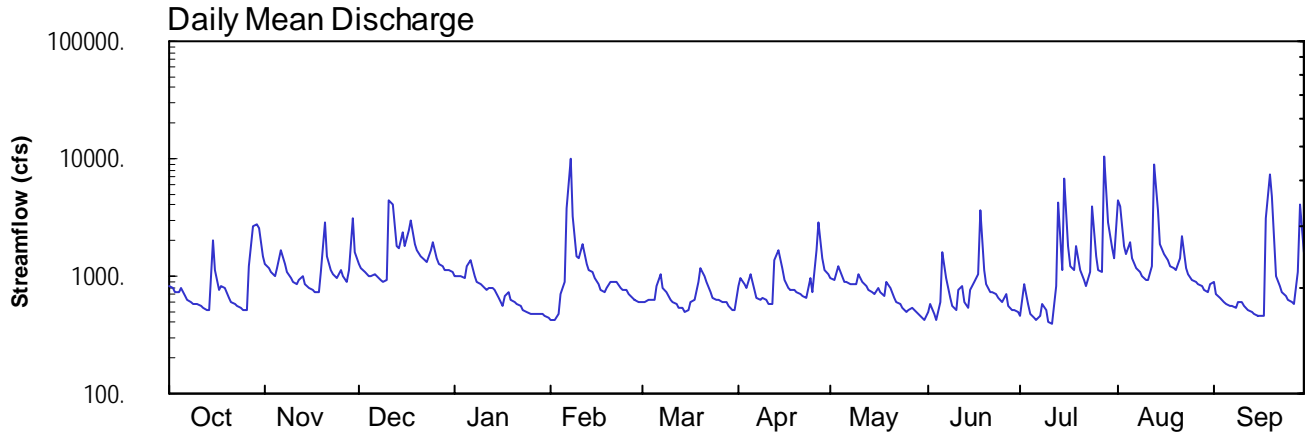
2004 Water Year CONESTOGA RIVER BASIN

01576754 Conestoga River at Conestoga, PA

Latitude: 39° 56 ' 47"
Lancaster County

Longitude: 076° 22 ' 05"
Datum: 180.45 feet

Hydrologic Unit Code: 02050306
Drainage Area: 470. mi²



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)
Dec. 12	0100	7,480	7.56	Aug. 2	0015	9,420	8.59
Feb. 7	0600	14,500	11.56	Aug. 13	1645	11,800	9.95
July 15	1415	11,500	9.78	Sept. 19	0400	10,000	8.92
July 28	1400	*15,600	*12.20				

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	816	1260	1280	1020	e430	608	827	975	488	455	4340	887
2	778	1150	1160	1010	e430	611	958	917	576	850	3990	715
3	727	1060	1080	988	e480	629	841	1220	469	582	1820	650
4	728	1000	992	968	e700	631	783	1080	432	470	1530	611
5	782	1180	1010	1200	e900	628	1050	901	611	445	1930	587
6	685	1640	1040	1370	e3700	813	753	897	1570	425	1410	567
7	628	1250	997	1000	e10000	1040	650	856	980	462	1190	555
8	601	1070	927	890	3270	786	619	848	656	589	1090	543
9	587	943	880	872	1480	720	652	847	550	522	992	613
10	572	875	907	808	1450	638	628	1040	508	415	921	601
11	552	850	4470	e760	1860	599	578	891	768	389	927	548
12	535	913	4050	786	1240	570	586	812	812	833	1230	506
13	510	1020	1830	788	1120	541	1350	772	606	4190	8730	487
14	507	870	1700	771	1090	525	1690	731	545	1120	3590	474
15	2000	795	2310	e640	952	501	1150	706	749	6820	1860	457
16	1140	757	1800	e550	847	524	911	798	906	1800	1540	460
17	765	739	2480	e680	769	606	807	744	1060	1210	1360	461
18	829	719	2980	e720	735	620	765	668	3630	1100	1220	3140
19	781	1090	1860	e630	791	883	749	880	1130	1820	1170	7240
20	658	2900	1650	e600	874	1160	731	785	856	1140	1130	4800
21	611	1500	1490	e570	888	990	697	663	743	934	1420	986
22	590	1140	1380	e550	893	896	672	602	738	828	2180	813
23	567	1030	1330	e520	795	735	664	576	707	1090	1170	731
24	535	976	1640	e490	757	654	954	538	640	3960	1020	675
25	519	1110	1930	e470	768	632	725	503	592	1450	933	634
26	514	1020	1400	e470	703	616	1670	523	717	1110	880	612
27	1220	907	1270	e480	654	604	2870	529	565	1070	841	587
28	2700	1110	1200	e480	626	594	1410	518	509	10400	810	1100
29	2750	3150	1140	e470	610	555	1140	473	509	2880	776	4030
30	2520	1610	1120	e460	---	519	1030	443	491	1700	746	1580
31	1470	---	1080	e440	---	516	---	430	---	1410	871	---
TOTAL	29177	35634	50383	22451	39812	20944	28910	23166	24113	52469	53617	36650
MEAN	941	1188	1625	724	1373	676	964	747	804	1693	1730	1222
MAX	2750	3150	4470	1370	10000	1160	2870	1220	3630	10400	8730	7240
MIN	507	719	880	440	430	501	578	430	432	389	746	457
CFSM	2.00	2.53	3.46	1.54	2.92	1.44	2.05	1.59	1.71	3.60	3.68	2.60
IN.	2.31	2.82	3.99	1.78	3.15	1.66	2.29	1.83	1.91	4.15	4.24	2.90

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2004, BY WATER YEAR (WY)

MEAN	422	562	749	764	805	1082	851	725	580	529	403	495
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 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1985 - 2004	
ANNUAL TOTAL	411708		417326			
ANNUAL MEAN	1128		1140		663	
HIGHEST ANNUAL MEAN					1140	2004
LOWEST ANNUAL MEAN					217	2002
HIGHEST DAILY MEAN	9020	Jun 21	10400	Jul 28	14100	Sep 17 1999
LOWEST DAILY MEAN	e220	Feb 17	389	Jul 11	58	Aug 7 1999
ANNUAL SEVEN-DAY MINIMUM	310	Aug 24	a456	Jan 27	65	Sep 9 2002
MAXIMUM PEAK FLOW			15600	Jul 28	19000	Sep 9 1987
MAXIMUM PEAK STAGE			12.20	Jul 28	14.37	Sep 9 1987
INSTANTANEOUS LOW FLOW			371	Jul 12	52	Aug 7 1999
ANNUAL RUNOFF (CFSM)	2.40		2.43		1.41	
ANNUAL RUNOFF (INCHES)	32.59		33.03		19.17	
10 PERCENT EXCEEDS	1950		1820		1240	
50 PERCENT EXCEEDS	884		828		458	
90 PERCENT EXCEEDS	428		509		174	

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.

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.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd, std units (00400)	pH, water, unfltrd, lab, std units (00403)	Specif. conductance, wat unfltrd lab, µS/cm 25 degC (90095)	Specif. conductance, wat unfltrd lab, µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recover-able, mg/L (00916)	Magnesium, water, unfltrd recover-able, mg/L (00927)
OCT 2003	15...	1028	9813	1560	7.9	7.8	8.0	600	597	14.8	230	59.2	19.2
DEC 15...	1030	1028	9813	2460	11.8	7.8	8.1	552	543	4.5	210	56.8	17.5
FEB 2004	12...	1028	9813	1280	11.3	7.6	7.8	474	479	3.7	190	52.2	14.3
APR 07...	1200	1028	9813	648	11.6	7.9	8.2	544	551	10.0	210	58.0	16.1
JUN 24...	0900	1028	9813	648	7.2	7.8	8.1	670	648	20.7	290	80.7	22.1
AUG 12...	1115	1028	9813	1160	7.7	7.9	8.0	555	558	21.0	240	64.4	19.0

Date	ANC, wat unfltrd end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC, wat fltrd, mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd, mg/L as N (00610)	Nitrate water, unfltrd, mg/L as N (00620)	Nitrite water, unfltrd, mg/L as N (00615)	Ortho-phosphate, water, unfltrd, mg/L as P (70507)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, water, unfltrd, mg/L (00600)	Organic carbon, water, unfltrd, mg/L (00680)	Aluminum, water, unfltrd recover-able, µg/L (01105)	Copper, water, unfltrd recover-able, µg/L (01042)
OCT 2003	171	34.2	428	54	.120	8.73	<.040	.13	.326	11	4.7	1400	<10
DEC 15...	150	30.9	402	40	.070	8.14	<.040	.08	.160	8.4	2.7	820	<10
FEB 2004	132	27.7	336	24	.790	6.63	.060	.36	.455	8.2	6.3	1100	<10
APR 07...	146	36.4	338	20	.070	6.77	.100	.10	.155	7.7	4.2	<200	<10
JUN 24...	197	41.3	456	42	.040	8.89	.110	.18	.255	9.3	3.0	1200	<10
AUG 12...	172	32.1	376	16	<.020	9.07	<.040	.08	.119	9.0	2.7	630	<10

Date	Iron, water, unfltrd recover-able, µg/L (01045)	Lead, water, unfltrd recover-able, µg/L (01051)	Manganese, water, unfltrd recover-able, µg/L (01055)	Nickel, water, unfltrd recover-able, µg/L (01067)	Zinc, water, unfltrd recover-able, µg/L (01092)
OCT 2003	1920	4.3	80	<50	230
DEC 15...	1200	4.1	50	<50	20
FEB 2004	1080	1.4	50	<50	<10
APR 07...	250	1.7	30	<50	<10
JUN 24...	1470	2.6	80	<50	160
AUG 12...	920	2.1	40	<50	<10

CONESTOGA RIVER BASIN

01576754 CONESTOGA RIVER AT CONESTOGA, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

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

Date	09/11/03
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	1
Nematoda (NEMATODES)	1
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
<i>Ferrissia</i>	1
Pleuroceridae	
<i>Elimia</i>	2
Bivalvia (CLAMS)	
Veneroidea	
Corbiculidae	
<i>Corbicula fluminea</i>	10
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	1
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	2
<i>Baetis</i>	8
<i>Plauditus</i>	5
Caenidae	
<i>Caenis</i>	1
Heptageniidae	
<i>Stenonema</i>	3
Potamanthidae	
<i>Anthopotamus</i>	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<i>Cheumatopsyche</i>	11
<i>Hydropsyche</i>	4
Hydroptilidae	
<i>Hydroptila</i>	1
Lepidoptera (MOTHS AND BUTTERFLIES)	
Pyralidae	
<i>Petrophila</i>	3
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Optioservus</i>	1
<i>Stenelmis</i>	73
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	4
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	14
Total Organisms	148
Total Taxa	21