



2004 Water Year CONESTOGA RIVER BASIN

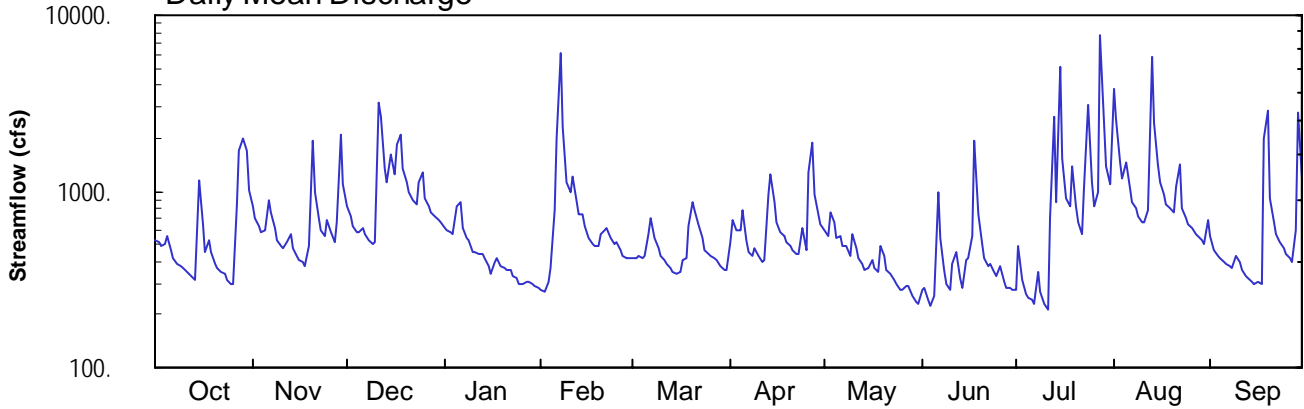
01576500 Conestoga River at Lancaster, PA

Latitude: 40° 03 ' 00"
Lancaster County

Longitude: 076° 16 ' 39"
Datum: 245.63 feet

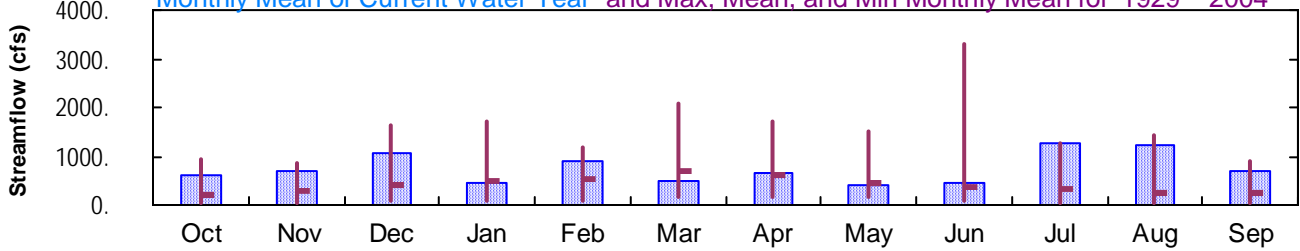
Hydrologic Unit Code: 02050306
Drainage Area: 324. mi²

Daily Mean Discharge

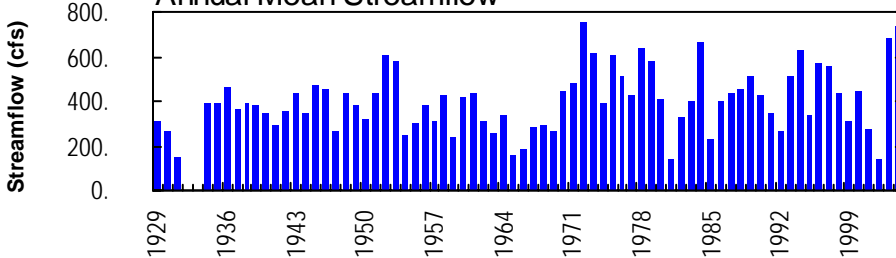


Monthly Statistics

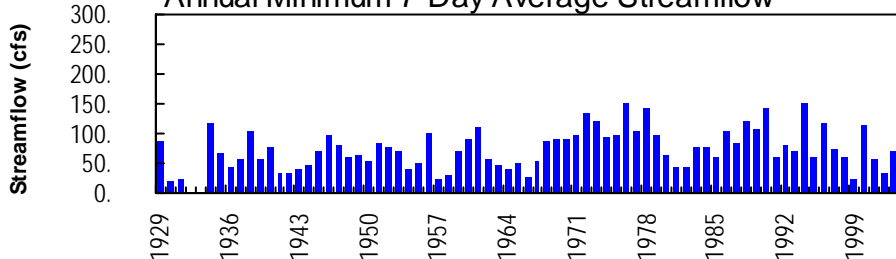
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1929 – 2004



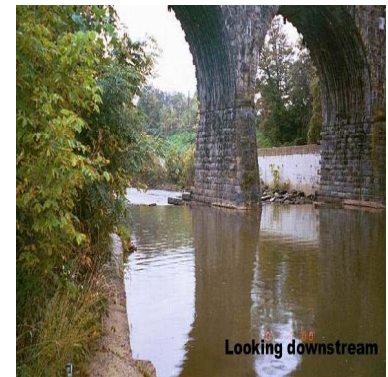
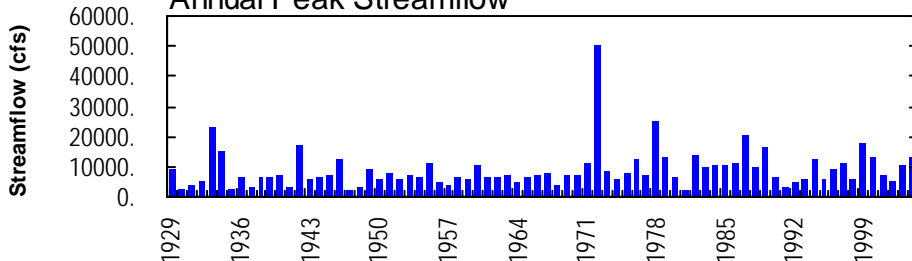
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



01576500-Conestoga River at Lancaster

CONESTOGA RIVER BASIN

01576500 CONESTOGA RIVER AT LANCASTER, PA

LOCATION.--Lat 40°03'00", long 76°16'39", Lancaster County, Hydrologic Unit 02050306, on left bank at Penn Central Railroad bridge, 50 ft downstream from small right-bank tributary, 500 ft downstream from diversion dam at city water plant, and 0.7 mi east of Lancaster.

DRAINAGE AREA.--324 mi².

PERIOD OF RECORD.--October 1928 to March 1932; August, September 1932; April 1933 to current year. Prior to October 1973, published as Conestoga Creek at Lancaster.

REVISED RECORDS.--WSP 1202: Drainage area. WSP 1502: 1943(P). WDR PA-87-2: 1985-86(P) (monthly and yearly summaries) WDR PA-90-2: 1972(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 245.63 ft above National Geodetic Vertical Datum of 1929. Prior to May 1, 1933, at site 600 ft upstream at different datum, excluding small tributary.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Regulation at low flow by water plant and mill above station. Diversion upstream for municipal supply of city of Lancaster. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

COOPERATION.--Records of diversion provided by city of Lancaster.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 3,800 ft³/s (revised) and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Dec. 11	2215	5,410	9.18	July 28	0945	*13,300	*14.32
Feb. 7	0400	7,820	11.09	Aug. 1	2015	6,930	10.43
July 13	0530	4,640	8.53	Aug. 13	1345	8,280	11.42
July 15	0900	9,100	11.98	Sept. 19	0115	6,210	9.85
July 24	1000	4,420	8.34	Sept. 29	0900	3,920	7.90

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	525	816	823	620	e275	416	510	604	277	276	3790	561
2	522	713	e720	600	e270	418	679	558	286	488	2600	469
3	488	640	e630	589	e310	432	603	758	240	310	1470	435
4	498	590	592	574	e370	416	604	661	223	264	1170	413
5	551	609	583	820	e780	424	783	543	255	249	1480	396
6	463	889	617	870	e2000	578	531	553	976	240	1030	385
7	422	769	577	613	e6060	704	457	486	545	227	872	372
8	388	613	531	536	2330	541	434	484	361	346	796	365
9	e380	527	504	526	1140	480	471	427	301	272	726	432
10	e370	489	517	457	987	426	432	573	274	227	673	395
11	352	475	e3190	e450	1220	407	401	478	385	210	674	356
12	341	515	2660	e445	861	386	404	417	457	712	781	331
13	320	567	1340	e440	750	366	959	386	323	2670	5750	319
14	314	474	1130	e420	733	350	1250	360	284	861	2460	309
15	1150	428	1620	e380	627	338	856	365	410	5150	1410	302
16	653	405	1260	e340	538	346	670	412	413	1540	1110	304
17	452	392	e1850	e395	502	406	585	365	558	903	960	301
18	524	381	2110	e415	487	420	550	352	1920	833	855	2010
19	450	494	1340	e380	492	640	516	494	734	1370	804	2900
20	389	1920	1130	e370	575	856	487	435	502	825	763	906
21	365	978	987	e360	606	791	459	362	416	661	1060	671
22	351	699	894	e355	617	651	444	336	377	572	1440	574
23	337	608	853	e330	538	537	440	314	387	1030	805	519
24	315	560	1110	e320	504	468	616	295	345	3080	707	474
25	302	679	1300	e300	518	445	467	274	333	1130	651	444
26	296	582	924	e300	465	431	1300	277	377	833	612	423
27	836	516	818	e305	434	417	1900	292	305	987	574	398
28	1710	672	755	e305	420	409	959	287	280	7700	550	595
29	e1980	2080	715	e295	415	375	736	255	282	2410	527	2770
30	1720	1080	694	e290	---	354	649	237	273	1380	500	1200
31	1000	---	663	e280	---	357	---	227	---	1090	690	---
TOTAL	18764	21160	33437	13680	25824	14585	20152	12867	13099	38846	38290	20329
MEAN	605	705	1079	441	890	470	672	415	437	1253	1235	678
MAX	1980	2080	3190	870	6060	856	1900	758	1920	7700	5750	2900
MIN	296	381	504	280	270	338	401	227	223	210	500	301
CFSM	1.87	2.18	3.33	1.36	2.75	1.45	2.07	1.28	1.35	3.87	3.81	2.09
IN.	2.15	2.43	3.84	1.57	2.96	1.67	2.31	1.48	1.50	4.46	4.40	2.33
(†)	14.4	15.2	15.8	17.2	16.3	16.6	14.7	16.7	15.8	14.2	16.3	16.7

† Diversion for municipal supply of city of Lancaster, equivalent in cubic feet per second.
e Estimated.

CONESTOGA RIVER BASIN

01576500 CONESTOGA RIVER AT LANCASTER, PA--Continued

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

	215	284	403	471	548	685	622	456	387	312	246	231
MEAN	215	284	403	471	548	685	622	456	387	312	246	231
MAX	930	866	1618	1699	1191	2089	1720	1529	3286	1253	1427	908
(WY)	1980	1997	1997	1979	1979	1994	1993	1989	1972	2004	1933	1987
MIN	33.2	41.1	70.3	61.3	77.0	155	166	148	92.0	50.3	30.3	40.9
(WY)	1931	1931	2002	1981	2002	2002	1985	1965	1965	1999	1957	1957

SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	269511		271033			
ANNUAL MEAN	738		741		403	
HIGHEST ANNUAL MEAN					753	
LOWEST ANNUAL MEAN					138	
HIGHEST DAILY MEAN	6010	Jun 21	7700	Jul 28	47600	Jun 23 1972
LOWEST DAILY MEAN	e 120	Feb 17	210	Jul 11	7.0	Aug 11 1930
ANNUAL SEVEN-DAY MINIMUM	a 139	Feb 14	249	May 29	20	Aug 9 1930
MAXIMUM PEAK FLOW			b 13300	Jul 28	b 50300	Jun 23 1972
MAXIMUM PEAK STAGE			14.34	Jul 28	c 27.90	Jun 23 1972
ANNUAL RUNOFF (CFSM)	2.28		2.29		1.24	
ANNUAL RUNOFF (INCHES)	30.94		31.12		16.91	
10 PERCENT EXCEEDS	1360		1310		815	
50 PERCENT EXCEEDS	554		518		261	
90 PERCENT EXCEEDS	245		302		85	

a Computed using estimated daily discharges.

b From rating curve extended above 13,000 ft³/s on basis of slope-area measurement at gage height 17.50 ft and contracted-opening measurement of peak flow.

c From floodmark.

e Estimated.