

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 and concrete control. Datum of gage is 245.63 ft above sea level. 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 poor. 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 2,800 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Mar. 22	1200	*12,900	*a14.14	June 26	0845	5,200	a8.89
Mar. 28	0945	4,160	7.86				

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	697	211	243	272	e215	816	877	378	332	435	169	382
2	462	216	229	263	203	740	829	391	317	382	177	509
3	387	495	215	266	193	662	795	384	302	356	182	219
4	402	303	212	275	199	604	892	342	291	353	492	176
5	739	238	209	350	202	562	863	333	280	335	255	153
6	503	218	425	281	197	517	705	343	545	305	194	134
7	393	213	509	248	190	480	652	329	564	278	197	119
8	348	203	300	244	185	460	632	310	354	266	183	113
9	329	192	272	235	179	444	1050	290	303	256	169	110
10	1170	186	271	292	187	432	937	307	281	290	164	109
11	1010	187	418	694	212	498	695	396	260	283	149	105
12	600	190	304	384	297	1200	652	299	248	240	140	106
13	504	181	265	312	256	703	597	290	942	222	140	170
14	481	178	824	295	340	547	563	386	446	223	142	190
15	434	173	1320	246	610	500	552	299	371	567	151	910
16	391	177	671	e215	484	475	572	262	369	347	189	299
17	382	161	530	e205	641	1060	610	249	326	267	177	189
18	383	149	463	e200	509	713	708	242	305	242	142	156
19	352	147	421	e200	736	560	590	399	362	230	137	154
20	342	149	413	e235	786	525	518	714	288	246	138	277
21	377	170	566	e210	653	1420	532	682	268	228	127	203
22	331	166	436	e195	575	9210	786	494	824	287	115	155
23	342	162	378	e185	717	2820	597	1050	428	242	118	139
24	326	141	353	e180	911	1840	515	1080	312	206	128	136
25	290	166	323	e220	1080	1500	474	848	369	200	122	157
26	250	207	317	e200	1130	1300	450	553	3490	208	112	896
27	236	1240	309	e190	878	1140	437	458	915	260	109	454
28	230	504	302	e180	1650	2400	436	451	613	228	115	277
29	220	331	290	e175	1010	1290	420	415	524	194	129	227
30	213	275	280	e170	---	1060	402	381	556	187	113	194
31	213	---	272	e225	---	949	---	349	---	176	108	---
TOTAL	13337	7529	12340	7842	15425	37427	19338	13704	15785	8539	4983	7418
MEAN	430	251	398	253	532	1207	645	442	526	275	161	247
MAX	1170	1240	1320	694	1650	9210	1050	1080	3490	567	492	910
MIN	213	141	209	170	179	432	402	242	248	176	108	105
CFSM	1.33	.77	1.23	.78	1.64	3.73	1.99	1.36	1.62	.85	.50	.76
IN.	1.53	.86	1.42	.90	1.77	4.30	2.22	1.57	1.81	.98	.57	.85
(†)	12.4	9.7	13.1	13.2	13.2	13.9	13.9	12.0	13.0	12.5	14.0	12.6

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

MEAN	211	279	393	475	550	689	627	459	379	303	237	221
MAX	930	866	1618	1699	1191	2089	1720	1529	3286	944	1427	908
(WY)	1980	1997	1997	1979	1979	1994	1993	1989	1972	1984	1933	1987
MIN	33.2	41.1	71.0	61.3	166	159	166	148	92.0	50.3	30.3	40.9
(WY)	1931	1931	1931	1981	1931	1981	1985	1965	1965	1999	1957	1957

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

a From floodmark.

e Estimated.

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SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	133561		163667			
ANNUAL MEAN	366		447		400	
HIGHEST ANNUAL MEAN					753	1972
LOWEST ANNUAL MEAN					143	1981
HIGHEST DAILY MEAN	9170	Sep 17	9210	Mar 22	47600	Jun 23 1972
LOWEST DAILY MEAN	13	Aug 6	105	Sep 11	7.0	Aug 11 1930
ANNUAL SEVEN-DAY MINIMUM	23	Aug 4	114	Sep 6	20	Aug 9 1930
INSTANTANEOUS PEAK FLOW			12900	Mar 22	b 50300	Jun 23 1972
INSTANTANEOUS PEAK STAGE			a 14.14	Mar 22	a 27.90	Jun 23 1972
ANNUAL RUNOFF (CFSM)	1.13		1.38		1.23	
ANNUAL RUNOFF (INCHES)	15.33		18.79		16.77	
10 PERCENT EXCEEDS	649		835		808	
50 PERCENT EXCEEDS	280		306		259	
90 PERCENT EXCEEDS	48		157		85	

a From floodmark.

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.

