

**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 mi<sup>2</sup>.

**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 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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)	Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)
Dec. 17	----	*e7,400	*a10.8	June 23	0600	2,940	6.85

a About, maximum recorded, 9.35 ft.

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	182	103	158	193	686	335	829	332	230	138	65	79
2	174	105	129	185	619	325	727	320	336	163	62	96
3	167	103	117	169	496	319	646	308	301	140	58	71
4	161	103	104	170	395	323	590	296	241	133	60	64
5	357	105	97	168	402	409	537	286	219	143	111	65
6	232	104	96	175	450	378	523	279	203	137	72	60
7	182	102	94	169	455	353	592	260	192	127	69	59
8	165	104	97	165	479	476	526	250	183	112	58	61
9	154	102	96	166	421	426	510	250	171	249	51	61
10	148	142	95	159	1130	414	542	245	163	172	52	68
11	143	207	94	150	768	363	510	237	159	199	309	93
12	138	143	91	148	512	343	655	226	152	152	306	84
13	133	119	84	147	466	832	526	227	147	128	259	72
14	130	113	275	142	469	735	462	222	149	121	167	58
15	128	127	413	152	585	519	425	209	140	112	127	55
16	125	122	233	191	512	494	669	200	141	107	105	58
17	126	113	e3300	187	714	656	657	195	191	104	94	50
18	158	100	2170	171	495	581	820	197	201	104	89	54
19	226	100	648	498	415	469	740	202	150	99	93	58
20	157	97	490	1220	403	428	572	197	143	91	117	60
21	140	97	382	556	395	480	541	226	198	87	100	110
22	128	99	358	370	363	1090	527	361	175	90	86	120
23	125	98	288	323	347	614	491	367	1330	90	78	81
24	119	93	294	297	352	506	464	272	341	80	76	77
25	115	92	261	274	359	472	437	220	232	78	81	539
26	113	129	233	246	550	441	406	285	192	72	73	286
27	112	216	235	242	435	414	390	678	170	72	73	137
28	111	165	224	231	367	394	387	535	160	72	72	110
29	123	132	211	210	---	392	361	331	140	74	72	103
30	112	145	205	437	---	1770	338	271	131	82	64	93
31	104	---	197	965	---	1190	---	242	---	76	60	---
TOTAL	4688	3580	11769	8876	14040	16941	16400	8726	6881	3604	3159	2982
MEAN	151	119	380	286	501	546	547	281	229	116	102	99.4
MAX	357	216	3300	1220	1130	1770	829	678	1330	249	309	539
MIN	104	92	84	142	347	319	338	195	131	72	51	50
CFSM	.47	.37	1.17	.88	1.55	1.69	1.69	.87	.71	.36	.31	.31
IN.	.54	.41	1.35	1.02	1.61	1.95	1.88	1.00	.79	.41	.36	.34
(†)	11.3	10.9	12.5	16.6	15.8	17.0	17.1	16.4	16.9	16.8	16.6	16.7

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

MEAN	210	277	393	472	550	687	626	457	377	301	235	219
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.

e Estimated.

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SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	150498		101646			
ANNUAL MEAN	411		278		398	
HIGHEST ANNUAL MEAN					753	1972
LOWEST ANNUAL MEAN					143	1981
HIGHEST DAILY MEAN	9210	Mar 22	e3300	Dec 17	47600	Jun 23 1972
LOWEST DAILY MEAN	84	Dec 13	50	Sep 17	7.0	Aug 11 1930
ANNUAL SEVEN-DAY MINIMUM	93	Dec 7	56	Sep 14	20	Aug 9 1930
MAXIMUM PEAK FLOW			e7400	Dec 17	b50300	Jun 23 1972
MAXIMUM PEAK STAGE			a10.80	Dec 17	c27.90	Jun 23 1972
ANNUAL RUNOFF (CFSM)	1.27		.86		1.23	
ANNUAL RUNOFF (INCHES)	17.28		11.67		16.70	
10 PERCENT EXCEEDS	818		540		803	
50 PERCENT EXCEEDS	258		182		258	
90 PERCENT EXCEEDS	112		76		85	

- a About, maximum recorded 9.35 ft.
- b From rating curve extended above 13,000 ft<sup>3</sup>/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.

