

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)
Oct. 10	0830	3,330	7.18	Mar. 22	0930	3,040	6.94
Jan. 19	Unknown	8,820	a11.79	Sept. 17	0500	*17,600	*16.39
Jan. 24	1845	3,160	7.04				

a From floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	121	106	80	323	775	398	270	126	91	35	42
2	58	124	102	75	886	465	437	261	128	65	39	41
3	67	111	99	713	913	379	389	253	158	66	35	40
4	89	116	83	609	558	671	367	252	160	58	28	42
5	93	104	102	226	477	564	400	241	132	69	15	52
6	90	107	105	165	414	462	353	236	121	69	13	159
7	80	100	100	154	389	575	333	233	123	66	19	730
8	804	103	95	119	429	425	315	274	124	45	21	357
9	1010	120	99	427	431	390	361	273	111	43	33	156
10	1750	108	103	955	375	381	1010	235	91	45	32	386
11	546	102	97	314	338	378	584	215	105	56	34	187
12	330	125	86	240	342	354	868	209	91	60	34	135
13	270	130	97	311	661	342	593	205	90	58	27	114
14	232	116	82	351	435	332	490	202	109	53	183	91
15	211	105	91	498	364	404	449	186	137	51	251	102
16	191	108	91	645	341	479	458	178	129	47	147	3390
17	174	105	67	448	340	514	541	173	122	42	90	9170
18	171	95	104	e3610	651	498	440	172	234	35	47	1120
19	166	94	86	e3700	659	411	404	172	173	42	59	748
20	161	97	74	857	456	359	395	179	128	44	61	587
21	148	103	98	590	404	372	405	169	117	45	67	580
22	142	100	70	774	366	1850	424	153	112	58	38	738
23	138	94	81	648	327	872	423	163	110	50	56	558
24	132	95	83	1590	318	684	434	206	96	44	53	425
25	139	101	81	1270	309	613	367	223	95	41	50	376
26	135	135	75	737	301	542	330	178	90	44	64	338
27	129	253	81	579	294	499	322	158	87	42	82	315
28	128	147	78	510	426	510	303	148	85	35	77	303
29	123	124	82	445	---	479	290	141	87	32	63	313
30	134	120	86	390	---	425	282	135	81	29	53	1100
31	123	---	99	354	---	392	---	131	---	33	48	---
TOTAL	8029	3463	2783	22384	12527	16396	13165	6224	3552	1558	1854	22695
MEAN	259	115	89.8	722	447	529	439	201	118	50.3	59.8	756
MAX	1750	253	106	3700	913	1850	1010	274	234	91	251	9170
MIN	58	94	67	75	294	332	282	131	81	29	13	40
CFSM	.80	.36	.28	2.23	1.38	1.63	1.35	.62	.37	.16	.18	2.33
IN.	.92	.40	.32	2.57	1.44	1.88	1.51	.71	.41	.18	.21	2.61
(†)	14.2	13.6	14.6	11.8	14.7	14.0	13.6	13.8	12.8	15.1	14.3	12.5

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

MEAN	207	280	393	478	550	681	627	460	377	304	238	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.

e Estimated.

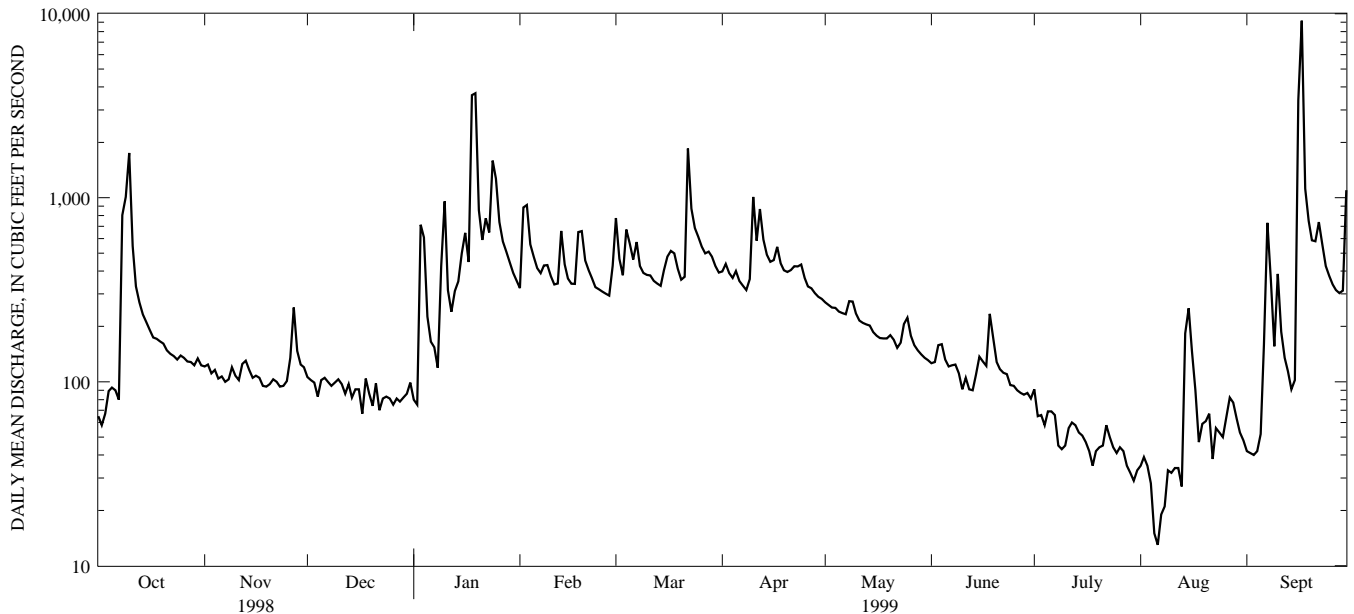
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01576500 CONESTOGA RIVER AT LANCASTER, PA--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	161368		114630			
ANNUAL MEAN	442		314		399	
HIGHEST ANNUAL MEAN					753	1972
LOWEST ANNUAL MEAN					143	1981
HIGHEST DAILY MEAN	2950	Mar 21	9170	Sep 17	47600	Jun 23 1972
LOWEST DAILY MEAN	58	Oct 2	13	Aug 6	7.0	Aug 11 1930
ANNUAL SEVEN-DAY MINIMUM	72	Sep 27	23	Aug 4	20	Aug 9 1930
INSTANTANEOUS PEAK FLOW			b 17600	Sep 17	b 50300	Jun 23 1972
INSTANTANEOUS PEAK STAGE			16.39	Sep 17	a 27.90	Jun 23 1972
ANNUAL RUNOFF (CFSM)	1.36				1.23	
ANNUAL RUNOFF (INCHES)	18.53		13.16		16.74	
10 PERCENT EXCEEDS	910		591		807	
50 PERCENT EXCEEDS	317		156		258	
90 PERCENT EXCEEDS	95		48		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.



1-YEAR HYDROGRAPH
OCTOBER 1, 1998 TO SEPTEMBER 30, 1999