

**CHARTIERS CREEK BASIN**

**03085500 CHARTIERS CREEK AT CARNEGIE, PA**

**LOCATION.**--Lat 40°24'02", long 80°05'48", Allegheny County, Hydrologic Unit 05030101, on left bank 100 ft downstream from Hammond Street bridge, 0.3 mi downstream from Robinson Run, 0.8 mi upstream from Campbells Run, and 8.9 mi upstream from mouth.

**DRAINAGE AREA.**--257 mi<sup>2</sup>.

**PERIOD OF RECORD.**--October 1919 to September 1933, October 1940 to current year. Published as "at Crafton" October 1971 to September 1975. Monthly discharge only for some periods, published in WSP 1305. June 1915 to September 1919 (gauge heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania.

**GAGE.**--Water-stage recorder and concrete weir control. Datum of gage is 755.45 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 15, 1931, nonrecording gage at site 0.5 mi downstream at different datum. Jan. 8, 1932 to Sept. 30, 1933, nonrecording gage at site 1.0 mi downstream at different datum. Nov. 20, 1940 to Aug. 18, 1967, water-stage recorder at site 400 ft upstream at datum 1.00 ft higher. Oct. 1, 1971 to Sept. 30, 1975, nonrecording gage at site 4.6 mi downstream, at datum 725.99 ft above National Geodetic Vertical Datum of 1929.

**REMARKS.**--Records good except those for estimated daily discharges, which are poor. Some regulations at low flow by mine drainage, reservoirs, and industrial usage above station. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Flood of Sept. 2, 1912 reached a discharge of 20,000 ft<sup>3</sup>/s, from U.S. Army Corps of Engineers.

**PEAK DISCHARGES FOR CURRENT YEAR.**--Peak discharges greater than a base discharge of 2,500 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)
Jan. 1	2000	3,860	6.76	May 9	1500	2,980	5.67
Feb. 23	1100	4,200	7.17	May 10	1400	*6,020	*9.12

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	136	e100	1920	140	431	195	171	468	210	291	407
2	62	106	e95	1740	149	564	186	163	312	214	243	530
3	62	92	e89	870	139	557	176	149	453	200	244	394
4	68	87	e89	722	984	468	201	141	783	354	569	254
5	89	93	e88	520	572	749	526	264	526	356	376	190
6	66	192	e86	442	328	1020	310	216	397	219	247	162
7	62	167	e88	376	287	703	967	255	687	222	240	147
8	58	129	e86	358	224	741	1070	833	573	1220	299	137
9	55	110	e86	399	e193	1150	596	1600	634	1170	241	130
10	54	116	e94	e330	e174	732	460	3220	442	853	213	124
11	64	314	121	e278	e154	544	912	1400	387	1460	210	117
12	72	204	164	e244	e140	476	740	799	416	570	190	111
13	119	146	227	e218	e133	585	518	677	481	436	179	110
14	84	123	945	e194	e121	645	428	547	357	351	171	109
15	69	110	652	e180	e116	509	388	487	319	308	166	177
16	572	174	395	e168	e115	471	355	563	289	360	180	175
17	309	444	284	e160	e128	444	324	452	404	271	174	108
18	152	280	233	e152	201	407	298	456	615	366	158	109
19	136	249	219	e144	184	373	276	388	395	636	138	458
20	128	256	424	e142	183	358	261	417	493	318	144	252
21	99	194	318	e140	173	344	388	812	1530	274	143	154
22	88	184	248	e140	385	312	297	513	553	530	145	158
23	78	185	216	e140	3150	287	255	444	405	496	157	227
24	75	156	191	e135	1030	266	228	551	338	773	136	160
25	87	139	390	e131	559	252	214	415	300	561	132	164
26	187	127	365	e127	431	247	210	380	277	376	129	143
27	106	e121	255	158	376	232	196	339	262	330	293	153
28	87	e115	220	374	353	217	181	336	241	390	246	176
29	125	e109	202	136	---	224	181	307	224	293	165	130
30	282	e105	191	134	---	218	173	286	219	259	714	122
31	198	---	237	126	---	198	---	382	---	252	342	---
TOTAL	3760	4963	7398	11298	11122	14724	11510	17963	13780	14628	7275	5788
MEAN	121	165	239	364	397	475	384	579	459	472	235	193
MAX	572	444	945	1920	3150	1150	1070	3220	1530	1460	714	530
MIN	54	87	86	126	115	198	173	141	219	200	129	108
CFSM	0.47	0.64	0.93	1.42	1.55	1.85	1.49	2.25	1.79	1.84	0.91	0.75
IN.	0.54	0.72	1.07	1.64	1.61	2.13	1.67	2.60	1.99	2.12	1.05	0.84

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2003, BY WATER YEAR (WY)**

	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
MEAN	114	194	282	350	453	577	468	352	238	178	143	128		
MAX	393	1400	1003	986	1255	1361	999	887	694	951	960	757		
(WY)	1980	1986	1951	1924	1926	1945	1961	1924	1980	1928	1980	1926		
MIN	31.3	35.5	36.5	37.8	80.9	101	154	92.7	46.5	30.0	28.4	24.1		
(WY)	1933	1931	1931	1931	1964	1969	1925	1926	1926	1926	1930	1927		

e Estimated.

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1920 - 2003	
ANNUAL TOTAL	79983		124209			
ANNUAL MEAN	219		340		289	
HIGHEST ANNUAL MEAN					527	
LOWEST ANNUAL MEAN					132	
HIGHEST DAILY MEAN	2060	Mar 27	3220	May 10	11100	Aug 6 1956
LOWEST DAILY MEAN	39	Sep 13	54	Oct 10	16	Aug 9 1926
ANNUAL SEVEN-DAY MINIMUM	45	Sep 8	62	Oct 6	19	Sep 26 1927
MAXIMUM PEAK FLOW			6020	May 10	a13500	Aug 6 1956
MAXIMUM PEAK STAGE			9.12	May 10	b16.37	Aug 6 1956
INSTANTANEOUS LOW FLOW			52	Oct 9-11	c16	Aug 9 1926d
ANNUAL RUNOFF (CFSM)	0.85		1.32		1.12	
ANNUAL RUNOFF (INCHES)	11.58		17.98		15.27	
10 PERCENT EXCEEDS	425		640		615	
50 PERCENT EXCEEDS	136		243		162	
90 PERCENT EXCEEDS	61		107		56	

- a From rating curve extended above 13,100 ft<sup>3</sup>/s.
- b Site and datum then in use.
- c Minimum observed.
- d Also at times in September 1932.

