

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 mi².

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 (gage 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 sea level. 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 sea level.

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 ft³/s, from U.S. Army Corps of Engineers.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Jan. 18	2345	2,960	a5.28	Apr. 9	2145	2,760	5.02
Mar. 6	2045	2,820	5.10	July 28	1545	*3,840	*6.24

a From peak-stage indicator.

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	48	e66	70	e66	281	405	199	268	170	85	142	55
2	45	e66	63	e60	498	315	197	251	187	425	114	55
3	71	e60	60	e66	392	337	183	236	186	324	86	55
4	148	e56	60	e80	342	481	199	228	156	128	82	52
5	72	e54	59	e94	307	402	240	225	143	95	79	48
6	56	e56	58	e96	278	1510	191	217	132	85	76	47
7	53	e62	61	e100	371	1460	181	209	124	89	71	55
8	172	e70	64	e105	713	717	167	297	123	79	72	101
9	e130	e120	68	e120	462	586	1030	251	118	82	68	69
10	e120	143	65	e140	376	525	1520	189	114	142	66	60
11	e100	131	62	e160	326	453	734	172	110	95	72	53
12	e54	85	57	e180	319	441	576	162	104	76	69	46
13	e64	72	52	e350	301	426	454	220	97	70	e68	45
14	e54	66	52	e620	256	407	391	325	108	71	e72	50
15	e54	59	52	e620	240	427	368	161	126	68	e78	52
16	e54	58	58	687	239	468	488	130	106	64	e70	51
17	e54	61	67	678	240	547	384	119	100	65	66	55
18	e64	63	69	1840	226	707	361	161	97	60	64	51
19	e84	58	62	1760	209	532	332	722	91	58	61	45
20	e72	83	57	806	188	464	651	255	86	59	60	52
21	e66	93	82	799	171	418	564	184	83	63	76	79
22	e68	73	599	1970	153	369	523	241	82	63	62	63
23	e62	67	208	1480	149	329	716	413	77	60	52	49
24	e56	66	119	1230	161	310	783	634	77	59	54	48
25	e54	61	97	763	170	287	541	734	79	58	106	55
26	e54	115	e84	551	176	266	462	417	79	52	146	46
27	e54	92	e74	459	160	248	410	306	84	50	101	44
28	e54	71	e68	405	390	235	359	252	85	904	73	43
29	e54	70	e68	344	---	221	324	215	172	778	61	84
30	e56	67	e69	297	---	204	294	190	100	176	49	304
31	e58	---	e70	266	---	191	---	173	---	103	52	---
TOTAL	2205	2264	2754	17192	8094	14688	13822	8557	3396	4586	2368	1912
MEAN	71.1	75.5	88.8	555	289	474	461	276	113	148	76.4	63.7
MAX	172	143	599	1970	713	1510	1520	734	187	904	146	304
MIN	45	54	52	60	149	191	167	119	77	50	49	43
CFM	.28	.29	.35	2.16	1.12	1.84	1.79	1.07	.44	.58	.30	.25
IN.	.32	.33	.40	2.49	1.17	2.13	2.00	1.24	.49	.66	.34	.28

e Estimated.

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03085500 CHARTIERS CREEK AT CARNEGIE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1999, BY WATER YEAR (WY)

MEAN	115	198	286	357	459	586	472	349	234	176	141	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

SUMMARY STATISTICS

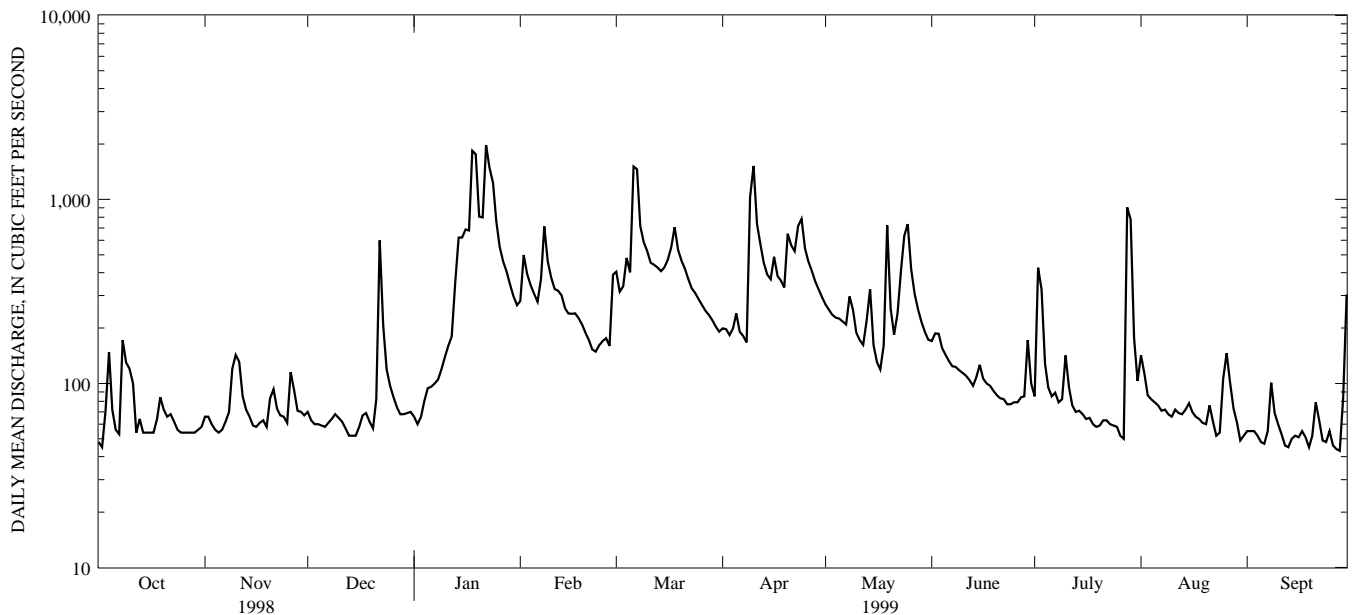
FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1920 - 1999

ANNUAL TOTAL	102314		81838		291		
ANNUAL MEAN	280		224		132		
HIGHEST ANNUAL MEAN					527		
LOWEST ANNUAL MEAN					1928		
HIGHEST DAILY MEAN	2770	Jan 8	1970	Jan 22	11100	Aug 6	1956
LOWEST DAILY MEAN	45	Oct 2	43	Sep 28	16	Aug 9	1926
ANNUAL SEVEN-DAY MINIMUM	51	Sep 26	50	Sep 22	19	Sep 26	1927
INSTANTANEOUS PEAK FLOW			3840	Jul 28	b13500	Aug 6	1956
INSTANTANEOUS PEAK STAGE			6.24	Jul 28	c16.37	Aug 6	1956
INSTANTANEOUS LOW FLOW			40	Sep 28	d16	Aug 9	1926f
ANNUAL RUNOFF (CFSM)	1.09		.87		1.13		
ANNUAL RUNOFF (INCHES)	14.81		11.85		15.39		
10 PERCENT EXCEEDS	556		528		624		
50 PERCENT EXCEEDS	188		104		162		
90 PERCENT EXCEEDS	58		54		55		

- b From rating curve extended above 13,100 ft³/s.
- c Site and datum then in use.
- d Minimum observed.
- f Also at times in September 1932.



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