

CHESTER CREEK BASIN

01477000 CHESTER CREEK NEAR CHESTER, PA

LOCATION.--Lat 39°52'08", long 75°24'31", Delaware County, Hydrologic Unit 02040202, on right bank 30 ft downstream from bridge on Dutton Mill Road, and 3.0 mi northwest of Chester.

DRAINAGE AREA.--61.1 mi².

PERIOD OF RECORD.--August 1931 to current year. Monthly discharges only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR PA-72-1: 1971.

GAGE.--Water-stage recorder. Datum of gage is 23.41 ft above Penn Central Railroad datum. Prior to June 27, 1966, water-stage recorder at site 50 ft upstream, and June 28, 1966, to Oct. 4, 1967, nonrecording gage 30 ft upstream and at gage, all at same datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Diversion about 2.6 mi upstream into Ridley Creek basin (see station 01476480 Ridley Creek at Media) by Philadelphia Suburban Water Company. Diversion for the year was equivalent to a mean daily discharge of 3.2 ft³/s. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
May 18	1145	*972	*5.29	(No peaks above base discharge.)			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	22	28	e25	55	32	83	57	34	24	6.7	55
2	28	25	26	e25	48	33	57	71	29	22	6.8	71
3	26	26	26	e25	40	316	52	84	27	22	6.5	32
4	24	25	27	e25	38	70	49	42	27	20	8.2	23
5	23	25	26	e24	36	48	44	36	26	17	7.7	19
6	25	24	25	52	35	45	44	35	44	16	7.1	15
7	24	25	26	121	36	42	42	35	148	15	6.5	13
8	23	25	30	53	36	40	43	34	52	13	6.3	15
9	24	24	73	39	34	39	42	39	39	17	6.0	13
10	24	22	37	37	35	51	45	40	35	27	5.9	13
11	24	23	35	97	42	39	40	32	30	20	5.8	12
12	24	24	34	60	35	38	44	38	32	15	6.0	11
13	22	24	35	41	34	48	47	126	29	12	6.7	12
14	23	24	44	36	33	50	45	82	115	15	6.2	13
15	45	23	47	35	33	43	56	47	77	19	6.6	17
16	25	25	33	34	34	38	43	40	63	16	7.2	25
17	20	23	32	34	33	38	39	35	40	12	6.2	18
18	18	24	67	34	32	112	36	385	45	12	6.2	14
19	18	24	41	34	32	69	35	104	41	15	6.5	13
20	17	27	33	37	33	251	44	66	46	14	10	13
21	18	28	32	35	43	126	35	57	32	15	9.5	12
22	19	24	30	35	35	69	51	53	27	13	6.7	12
23	20	23	30	38	33	56	42	48	30	11	6.7	11
24	19	24	75	127	33	49	35	45	29	17	20	9.9
25	20	48	41	81	33	46	39	40	28	16	64	11
26	22	88	33	45	33	47	46	37	24	10	18	22
27	20	34	31	40	33	167	35	53	27	11	13	156
28	21	30	e30	38	32	68	165	46	79	14	12	84
29	21	29	e28	37	---	55	72	40	34	14	158	28
30	25	29	e27	36	---	49	49	36	26	13	48	21
31	24	---	e26	64	---	54	---	34	---	7.9	27	---
TOTAL	717	841	1108	1444	1009	2228	1499	1917	1315	484.9	518.0	783.9
MEAN	23.1	28.0	35.7	46.6	36.0	71.9	50.0	61.8	43.8	15.6	16.7	26.1
MAX	45	88	75	127	55	316	165	385	148	27	158	156
MIN	17	22	25	24	32	32	35	32	24	7.9	5.8	9.9

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2002, BY WATER YEAR (WY)

MEAN	55.6	76.8	89.9	104	114	142	127	101	76.6	67.7	61.3	67.0
MAX	234	233	328	326	326	627	413	224	176	254	217	543
(WY)	1980	1951	1997	1979	1979	1994	1980	1983	1982	1975	1955	1971
MIN	13.7	18.2	24.3	23.4	36.0	53.1	41.9	34.8	28.3	15.6	13.7	10.4
(WY)	1942	1932	1932	1981	2002	1981	1963	1942	1966	2002	1966	1932

e Estimated.

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01477000 CHESTER CREEK NEAR CHESTER, PA--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1932 - 2002	
ANNUAL TOTAL	26097		13864.8		90.1	
ANNUAL MEAN	71.5		38.0		168	
HIGHEST ANNUAL MEAN					1979	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	965	Mar 30	385	May 18	6510	Sep 13 1971
LOWEST DAILY MEAN	17	Oct 20	5.8	Aug 11	5.8	Aug 11 2002
ANNUAL SEVEN-DAY MINIMUM	18	Oct 18	6.1	Aug 8	6.1	Aug 8 2002
MAXIMUM PEAK FLOW			972	May 18	a 21000	Sep 13 1971
MAXIMUM PEAK STAGE			5.29	May 18	b 24.59	Sep 13 1971
INSTANTANEOUS LOW FLOW			4.5	Aug 17	0.30	Aug 7 1934
10 PERCENT EXCEEDS	134		64		154	
50 PERCENT EXCEEDS	50		32		60	
90 PERCENT EXCEEDS	23		12		27	

a From rating curve extended above 2,400 ft³/s on basis of contracted-opening measurement at 9,400 ft³/s, at gage height 13.57 ft, and slope-area measurement of peak flow.

b From floodmark.

