

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 Aqua Pennsylvania Water Company (formerly Philadelphia Suburban Water Company). Diversion for the year was equivalent to a mean daily discharge of 2.5 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)
Dec. 11	1945	1,480	6.43	June 20	2030	*7,500	*14.65
Feb. 22	1745	2,620	8.44	Sept. 15	1900	2,400	8.15
Mar. 20	2245	2,420	8.08				

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	20	48	43	239	61	80	103	74	179	102	71	71
2	16	38	41	214	75	446	97	74	96	97	82	185
3	18	33	39	136	62	358	93	68	72	163	63	97
4	19	32	40	132	85	134	89	65	566	115	265	206
5	19	33	43	90	74	353	88	66	295	101	162	113
6	16	96	48	89	56	723	85	86	119	104	147	72
7	15	48	e40	81	61	262	97	73	297	109	79	64
8	15	35	e44	76	e54	202	127	134	238	102	171	61
9	16	32	e40	82	e50	331	171	86	126	86	239	58
10	33	33	e44	74	e52	202	132	84	102	89	477	54
11	378	40	398	68	e46	123	349	75	88	103	360	52
12	127	131	379	64	e47	119	232	70	100	86	249	51
13	42	136	173	63	e43	144	134	65	161	94	103	181
14	30	60	421	61	e39	142	110	62	311	82	85	187
15	26	47	116	62	e41	114	104	58	274	77	73	1020
16	99	70	85	e53	e37	115	100	65	110	72	74	542
17	78	586	70	e58	e33	147	93	81	93	69	83	128
18	38	255	61	e52	e30	116	98	63	334	66	65	114
19	30	83	59	e55	e34	97	96	60	142	70	60	427
20	28	63	249	e59	e40	503	86	55	1880	61	56	132
21	26	56	124	e52	e80	680	84	79	1510	62	57	99
22	25	68	75	e47	1030	185	92	85	320	61	59	90
23	24	70	65	e40	1100	135	86	67	223	62	57	393
24	24	52	61	e41	376	118	83	80	176	97	51	168
25	24	47	363	e43	165	109	82	72	152	65	51	107
26	118	45	166	e45	113	109	150	568	138	56	57	95
27	48	68	92	e42	90	127	96	156	132	56	81	94
28	32	54	76	e40	85	100	83	126	117	57	55	250
29	40	46	70	e43	---	105	81	106	110	55	51	123
30	125	45	65	e46	---	151	78	76	106	52	193	95
31	101	---	64	e50	---	136	---	70	---	86	161	---
TOTAL	1650	2450	3654	2297	4059	6666	3399	2949	8567	2557	3837	5329
MEAN	53.2	81.7	118	74.1	145	215	113	95.1	286	82.5	124	178
MAX	378	586	421	239	1100	723	349	568	1880	163	477	1020
MIN	15	32	39	40	30	80	78	55	72	52	51	51

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2003, BY WATER YEAR (WY)

MEAN	55.6	76.9	90.3	104	114	143	127	101	79.5	67.9	62.1	68.5
MAX	234	233	328	326	326	627	413	224	286	254	217	543
(WY)	1980	1951	1997	1979	1979	1994	1980	1983	2003	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

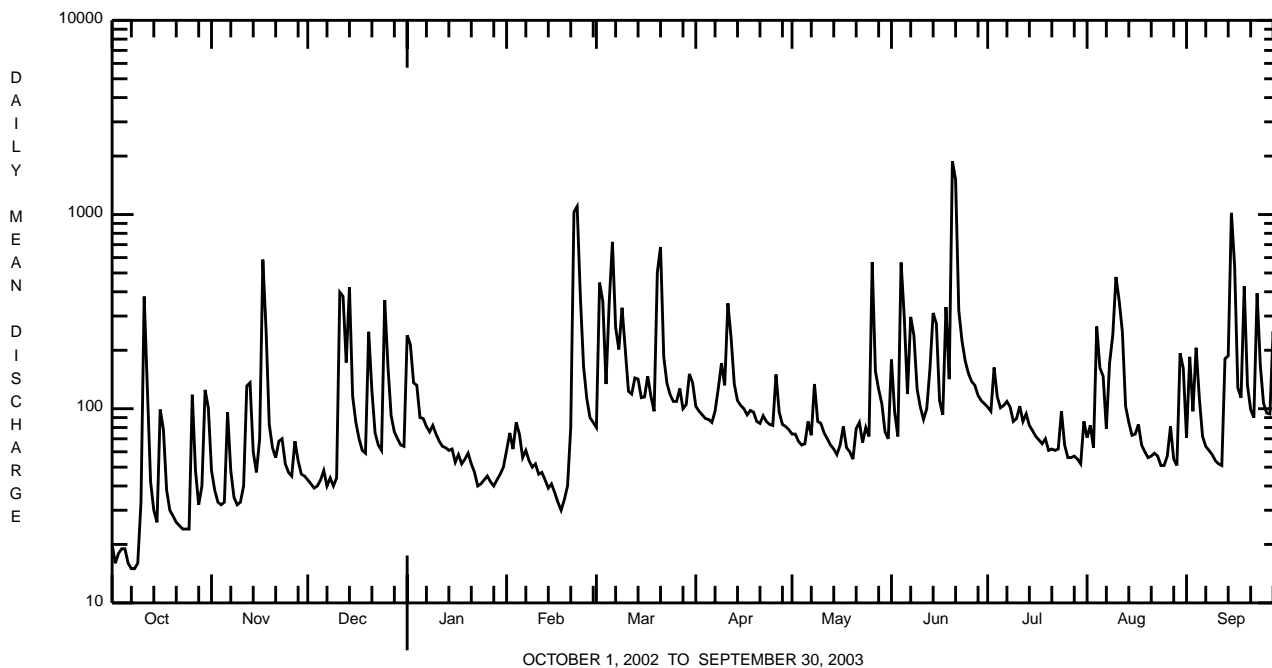
e Estimated.

CHESTER CREEK BASIN

01477000 CHESTER CREEK NEAR CHESTER, PA--Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1932 - 2003	
ANNUAL TOTAL	18952.8		47414			
ANNUAL MEAN	51.9		130		90.6	
HIGHEST ANNUAL MEAN					168	1979
LOWEST ANNUAL MEAN					38.0	2002
HIGHEST DAILY MEAN	586	Nov 17	1880	Jun 20	6510	Sep 13 1971
LOWEST DAILY MEAN	5.8	Aug 11	15	Oct 7,8	5.8	Aug 11 2002
ANNUAL SEVEN-DAY MINIMUM	6.1	Aug 8	17	Oct 2	6.1	Aug 8 2002
MAXIMUM PEAK FLOW			a7500	Jun 20	a21000	Sep 13 1971
MAXIMUM PEAK STAGE			14.65	Jun 20	b24.59	Sep 13 1971
INSTANTANEOUS LOW FLOW			13	Oct 7,8	0.30	Aug 7 1934
10 PERCENT EXCEEDS	94		252		155	
50 PERCENT EXCEEDS	37		82		60	
90 PERCENT EXCEEDS	12		40		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.



OCTOBER 1, 2002 TO SEPTEMBER 30, 2003