

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 3.0 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)
Nov. 28	0815	3,710	10.19	Mar. 28	2000	2,320	8.02
Jan. 14	1145	2,410	8.17	Apr. 2	1915	*5,150	*12.14

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	81	494	108	e96	133	151	247	75	63	40	32
2	111	78	203	104	e98	127	1770	139	73	109	38	28
3	101	77	150	104	e100	115	1130	128	139	58	37	27
4	91	233	130	109	e105	109	325	119	183	53	34	26
5	85	299	123	183	116	109	232	115	98	65	34	26
6	81	106	116	239	124	112	207	114	93	91	33	26
7	79	90	208	160	129	144	191	112	215	59	31	25
8	78	85	203	197	134	196	465	108	94	518	49	24
9	76	81	151	155	148	138	211	105	80	153	63	24
10	75	79	413	126	171	119	183	105	80	78	44	24
11	73	81	257	121	125	117	168	104	76	63	40	24
12	71	221	159	163	109	131	158	103	73	57	36	24
13	71	357	139	127	103	115	153	98	69	56	33	24
14	205	122	126	1050	277	109	145	97	67	56	33	24
15	109	104	118	274	432	106	140	96	64	56	73	151
16	117	97	116	170	173	102	135	94	63	69	47	55
17	83	92	116	150	155	102	134	90	69	67	77	36
18	76	90	112	129	130	101	132	90	60	107	43	34
19	301	88	116	e110	115	97	128	86	60	57	41	29
20	119	85	e105	e115	112	114	128	155	60	51	45	28
21	110	93	e95	e105	136	113	124	133	59	47	38	28
22	92	84	106	e100	167	102	122	99	57	45	36	27
23	82	83	385	e85	143	442	224	92	67	44	32	27
24	80	89	298	e75	125	342	294	93	57	41	30	25
25	78	140	138	e80	127	160	145	94	55	46	28	25
26	75	97	119	e85	123	137	129	95	54	44	28	25
27	73	83	114	e90	121	127	148	89	55	43	29	36
28	75	1420	107	e75	121	881	127	83	66	63	36	27
29	75	241	109	e80	---	650	118	86	64	43	43	27
30	172	147	109	e90	---	203	164	79	65	41	35	29
31	97	---	110	e93	---	167	---	78	---	41	35	---
TOTAL	3148	5023	5245	4852	4015	5720	7881	3326	2390	2384	1241	967
MEAN	102	167	169	157	143	185	263	107	79.7	76.9	40.0	32.2
MAX	301	1420	494	1050	432	881	1770	247	215	518	77	151
MIN	71	77	95	75	96	97	118	78	54	41	28	24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2005, BY WATER YEAR (WY)

	MEAN	57.5	79.0	93.1	104	116	143	130	101	79.8	69.2	62.6	70.3
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1932 - 2005	
ANNUAL TOTAL	53961		46192			
ANNUAL MEAN	147		127		92.0	
HIGHEST ANNUAL MEAN					168	1979
LOWEST ANNUAL MEAN					38.0	2002
HIGHEST DAILY MEAN	2860	Sep 29	1770	Apr 2	6510	Sep 13 1971
LOWEST DAILY MEAN	45	Sep 14	24	Sep 8-14	5.8	Aug 11 2002
ANNUAL SEVEN-DAY MINIMUM	48	Sep 11	24	Sep 8	6.1	Aug 8 2002
MAXIMUM PEAK FLOW			a5150	Apr 2	a21000	Sep 13 1971
MAXIMUM PEAK STAGE			12.14	Apr 2	b24.59	Sep 13 1971
INSTANTANEOUS LOW FLOW			23	Sep 8c	0.30	Aug 7 1934
10 PERCENT EXCEEDS	235		203		157	
50 PERCENT EXCEEDS	100		98		61	
90 PERCENT EXCEEDS	60		34		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 at gage height 24.59.
- b From floodmark.
- c Also Sept. 9-14, 24-26.

