

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 3.1 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)
Mar. 22	0600	*4,480	*11.24	July 27	0245	1,640	6.77

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	55	64	60	e47	98	181	89	67	57	64	49
2	65	160	61	61	e44	93	175	95	64	50	54	45
3	58	259	61	62	e49	86	172	87	59	50	57	45
4	102	87	60	149	e45	81	216	85	57	89	60	41
5	295	68	59	330	e43	80	169	84	58	54	52	37
6	92	64	214	97	e42	76	152	81	108	47	46	34
7	65	60	125	80	e44	76	142	78	77	43	49	33
8	59	59	73	70	e42	76	e153	76	64	42	47	34
9	56	58	64	68	e40	76	e363	76	59	41	42	34
10	285	58	124	184	e39	76	e199	79	55	51	42	33
11	166	57	132	178	e38	126	118	111	52	42	41	34
12	80	53	74	87	e38	362	114	76	58	40	264	34
13	67	54	95	77	e50	123	106	82	128	39	183	53
14	62	55	624	e60	e240	94	104	169	69	87	137	40
15	e59	53	319	e57	e170	86	110	79	67	111	106	309
16	e62	53	140	e54	e150	110	187	71	65	64	59	62
17	e60	52	100	e52	e140	615	190	78	58	91	51	43
18	e75	50	87	e50	e110	184	205	72	205	52	50	40
19	57	52	80	e49	525	126	132	171	240	63	51	106
20	230	52	113	e62	291	110	116	145	80	75	46	160
21	136	55	162	e53	192	751	186	107	65	49	42	56
22	74	53	90	e49	144	2500	293	99	155	47	42	43
23	95	54	78	e46	142	565	140	110	72	41	41	41
24	68	56	73	e45	150	415	117	152	58	41	45	44
25	61	81	66	e60	155	300	109	122	52	47	41	70
26	58	104	e65	e50	135	266	105	81	51	286	35	665
27	56	403	67	e47	115	249	102	77	51	530	36	132
28	55	131	65	e44	173	548	103	84	130	90	59	71
29	54	83	63	e43	111	260	98	76	189	66	52	57
30	53	71	62	e42	---	213	94	70	78	64	43	51
31	54	---	62	e56	---	195	---	69	---	58	52	---
TOTAL	2858	2550	3522	2422	3504	9016	4651	2931	2591	2507	1989	2496
MEAN	92.2	85.0	114	78.1	121	291	155	94.5	86.4	80.9	64.2	83.2
MAX	295	403	624	330	525	2500	363	171	240	530	264	665
MIN	53	50	59	42	38	76	94	69	51	39	35	33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2000, BY WATER YEAR (WY)

MEAN	56.1	77.7	90.3	105	115	142	129	101	77.1	68.9	62.3	68.1
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	41.4	53.1	41.9	34.8	28.3	17.4	13.7	10.4
(WY)	1942	1932	1932	1981	1932	1981	1963	1942	1966	1932	1966	1932

e Estimated.

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SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1932 - 2000	
ANNUAL TOTAL	36654		41037		90.9	
ANNUAL MEAN	100		112		168	
HIGHEST ANNUAL MEAN					1979	
LOWEST ANNUAL MEAN					39.3	
HIGHEST DAILY MEAN	5740	Sep 16	2500	Mar 22	6510	Sep 13 1971
LOWEST DAILY MEAN	10	Aug 4,7	33	Sep 7,10	6.5	Sep 25 1941
ANNUAL SEVEN-DAY MINIMUM	11	Aug 2	34	Sep 6	8.3	Sep 9 1932
INSTANTANEOUS PEAK FLOW			a 4480	Mar 22	a 21000	Sep 13 1971
INSTANTANEOUS PEAK STAGE			11.24	Mar 22	b 24.59	Sep 13 1971
INSTANTANEOUS LOW FLOW			31	Sep 7,9,10	.30	Aug 7 1934
10 PERCENT EXCEEDS	161		196		155	
50 PERCENT EXCEEDS	61		70		60	
90 PERCENT EXCEEDS	18		43		28	

- 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.

