

FRANKFORD CREEK BASIN

01467087 FRANKFORD CREEK AT CASTOR AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°00'57", long 75°05'50", Philadelphia County, Hydrologic Unit 02040203, on left bank at upstream side of Castor Avenue bridge, and 2.8 mi upstream from mouth in northeast Philadelphia.

DRAINAGE AREA.--30.4 mi².

PERIOD OF RECORD.--July 1982 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 16.56 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Feb. 22	1415	3,730	6.74	Aug. 30	1615	3,710	6.72
May 7	2345	3,130	6.18	Sept. 15	1730	3,130	6.18
Aug. 4	1445	*4,650	*7.54				

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	2.1	5.7	9.7	220	17	14	33	19	146	21	125	21
2	2.1	5.5	9.4	36	16	293	31	36	26	21	38	119
3	1.9	5.0	9.4	39	13	45	27	22	23	24	17	24
4	3.4	4.6	9.3	28	32	22	26	19	308	21	261	60
5	2.5	11	9.9	20	14	92	27	20	65	20	157	14
6	2.0	85	12	27	13	215	25	67	33	22	24	11
7	1.8	5.8	11	e22	16	36	42	92	179	85	68	11
8	2.0	4.7	13	e20	14	32	36	175	44	27	77	11
9	2.4	4.6	11	18	13	51	61	23	33	19	110	10
10	30	4.3	8.6	16	13	30	29	20	31	40	26	10
11	281	20	247	15	13	24	139	20	29	21	16	11
12	15	151	52	15	12	24	68	19	146	27	16	10
13	5.0	31	82	15	11	25	30	17	63	27	13	135
14	4.4	6.7	84	14	11	22	27	16	100	17	13	120
15	3.9	5.6	21	14	e10	21	27	16	34	15	13	167
16	52	47	17	14	7.7	20	26	23	26	15	12	26
17	11	240	15	16	7.8	20	25	36	25	14	15	12
18	5.1	63	14	15	18	18	25	16	193	70	12	43
19	4.1	15	14	15	17	16	24	16	32	41	12	203
20	3.5	13	197	15	26	306	23	15	348	16	12	15
21	e3.5	12	20	14	39	106	23	36	100	16	12	12
22	e3.4	79	15	e14	817	39	24	17	40	35	11	12
23	3.4	16	14	e15	253	34	22	26	35	46	11	182
24	3.7	11	14	e15	47	32	22	26	32	78	11	16
25	4.1	10	240	e15	25	31	22	21	30	16	11	13
26	168	10	33	14	19	61	74	464	28	15	11	12
27	5.6	36	20	14	16	37	22	29	46	14	23	31
28	4.4	10	17	13	17	28	20	24	26	17	13	48
29	74	9.8	16	14	---	88	20	22	25	15	11	13
30	e82	10	15	13	---	48	19	19	24	14	202	12
31	24	---	15	14	---	32	---	124	---	14	17	---
TOTAL	811.3	932.3	1265.3	749	1527.5	1862	1019	1495	2270	843	1370	1384
MEAN	26.2	31.1	40.8	24.2	54.6	60.1	34.0	48.2	75.7	27.2	44.2	46.1
MAX	281	240	247	220	817	306	139	464	348	85	261	203
MIN	1.8	4.3	8.6	13	7.7	14	19	15	23	14	11	10
CFSM	0.86	1.02	1.34	0.79	1.79	1.98	1.12	1.59	2.49	0.89	1.45	1.52
IN.	0.99	1.14	1.55	0.92	1.87	2.28	1.25	1.83	2.78	1.03	1.68	1.69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2003, BY WATER YEAR (WY)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	
MEAN	26.5	32.9	36.5	34.4	34.3	50.9	45.8	48.7	43.8	47.6	38.6	44.8											
MAX	86.5	81.7	145	61.8	80.4	91.4	143	98.4	111	116	71.4	143											
(WY)	1997	1987	1997	1996	1988	1994	1983	1989	1989	1989	1989	1999											
MIN	7.38	6.64	6.47	10.6	7.79	11.7	14.4	20.8	11.1	4.91	5.66	9.02											
(WY)	2002	2002	1999	1985	2002	1985	2002	1986	1999	1999	1995	1998											

e Estimated.

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1982 - 2003	
ANNUAL TOTAL	8723.02		15528.4			
ANNUAL MEAN	23.9		42.5		40.4	
HIGHEST ANNUAL MEAN					61.7	1996
LOWEST ANNUAL MEAN					17.9	2002
HIGHEST DAILY MEAN	518	May 18	817	Feb 22	3140	Sep 16 1999
LOWEST DAILY MEAN	0.39	Sep 25	1.8	Oct 7	0.39	Sep 25 2002
ANNUAL SEVEN-DAY MINIMUM	0.48	Sep 19	2.2	Oct 2	0.48	Sep 19 2002
MAXIMUM PEAK FLOW			4650	Aug 4	a10300	Jul 31 1985
MAXIMUM PEAK STAGE			7.54	Aug 4	11.82	Jul 31 1985
INSTANTANEOUS LOW FLOW			1.7	Oct 3,5-8	0.31	Sep 25 2002
ANNUAL RUNOFF (CFSM)	0.79		1.40		1.33	
ANNUAL RUNOFF (INCHES)	10.67		19.00		18.06	
10 PERCENT EXCEEDS	61		100		78	
50 PERCENT EXCEEDS	6.7		20		16	
90 PERCENT EXCEEDS	1.7		9.4		6.6	

a From rating curve extended above 8,000 ft³/s on basis of slope-area measurement at gage height 9.97 ft.

