

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)
June 27	2115	4,770	7.64	Aug. 24	1945	*7,630	*9.81

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	e21	3.7	2.9	4.3	16	4.0	37	12	7.8	5.9	3.6	81
2	e6.5	4.4	2.9	4.4	9.2	25	7.2	95	5.2	5.8	3.7	41
3	5.4	5.0	2.9	4.5	6.4	233	6.8	15	5.0	6.4	22	1.7
4	5.2	5.5	3.0	4.4	6.6	6.9	7.0	5.8	5.2	6.4	3.6	1.3
5	4.7	3.8	3.2	4.5	6.9	5.2	6.6	5.4	49	5.9	28	1.0
6	32	4.1	2.8	164	6.1	4.8	6.5	5.6	230	6.2	3.8	1.0
7	6.0	3.7	2.6	29	8.9	4.6	6.4	5.7	70	6.2	1.6	0.89
8	4.8	3.6	64	8.9	7.0	4.5	6.1	5.2	7.0	6.1	2.2	0.99
9	4.8	4.2	54	8.9	5.9	4.8	6.2	51	5.9	10	1.5	0.81
10	4.4	4.0	e5.0	7.3	10	22	7.1	6.2	5.7	60	1.6	0.76
11	4.2	7.4	e4.5	39	28	4.3	5.9	4.7	5.9	7.2	1.7	0.64
12	4.2	4.5	e6.0	7.9	6.3	4.5	13	75	8.6	6.7	1.7	0.49
13	4.3	4.0	10	5.6	6.4	8.8	7.7	154	5.4	7.9	1.5	0.56
14	4.1	4.0	22	5.1	6.1	5.8	6.8	22	92	10	1.6	2.1
15	44	3.7	8.5	5.3	6.3	4.5	6.7	8.1	9.1	7.7	1.6	4.4
16	3.6	3.9	4.8	5.2	6.7	4.5	5.9	7.2	5.7	6.1	1.7	6.7
17	4.2	3.9	5.2	5.2	6.4	7.1	5.3	6.8	37	5.7	1.7	0.83
18	4.1	4.0	43	5.5	6.1	64	11	518	38	5.6	1.8	0.58
19	4.3	4.0	6.0	5.9	6.6	8.3	19	15	76	43	1.2	0.50
20	4.5	6.1	4.9	8.2	6.7	211	11	10	9.7	16	2.9	0.50
21	4.7	6.1	4.8	9.3	11	17	5.7	9.2	5.9	4.8	1.3	0.46
22	4.7	e4.5	5.2	10	5.7	8.5	29	8.5	5.8	4.3	0.69	0.53
23	5.0	e4.0	5.2	11	5.3	7.2	6.5	8.3	5.5	5.1	1.1	0.48
24	5.0	e6.0	97	164	5.6	6.7	5.2	7.8	41	8.6	287	0.48
25	5.0	e30	6.3	13	6.5	6.6	21	7.6	10	4.1	11	0.39
26	4.5	e50	5.0	7.7	5.3	55	8.0	7.4	7.3	3.6	1.1	132
27	4.9	2.9	4.6	7.2	5.0	100	5.0	7.7	224	3.9	0.80	154
28	5.1	2.8	4.5	6.7	5.0	8.2	145	7.0	36	3.8	0.64	103
29	5.8	2.8	4.6	6.0	---	7.3	9.5	6.2	6.8	3.6	194	2.9
30	4.1	2.7	4.7	15	---	6.9	7.6	6.0	6.3	3.3	2.0	2.1
31	3.7	---	4.6	29	---	37	---	6.9	---	3.6	1.1	---
TOTAL	228.8	199.3	404.7	612.0	218.0	898.0	431.7	1110.3	1026.8	283.5	589.73	544.09
MEAN	7.38	6.64	13.1	19.7	7.79	29.0	14.4	35.8	34.2	9.15	19.0	18.1
MAX	44	50	97	164	28	233	145	518	230	60	287	154
MIN	3.6	2.7	2.6	4.3	5.0	4.0	5.0	4.7	5.0	3.3	0.64	0.39
CFSM	0.24	0.22	0.43	0.65	0.26	0.95	0.47	1.18	1.13	0.30	0.63	0.60
IN.	0.28	0.24	0.50	0.75	0.27	1.10	0.53	1.36	1.26	0.35	0.72	0.67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2002, BY WATER YEAR (WY)

MEAN	26.6	33.0	36.3	35.0	33.3	50.4	46.4	48.8	42.2	48.5	38.3	44.7
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	1999	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1982 - 2002	
ANNUAL TOTAL	11706.9		6546.92		40.3	
ANNUAL MEAN	32.1		17.9		61.7	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	1220	Jun 16	518	May 18	3140	Sep 16 1999
LOWEST DAILY MEAN	2.6	Dec 7	0.39	Sep 25	0.39	Sep 25 2002
ANNUAL SEVEN-DAY MINIMUM	2.8	Nov 27	0.48	Sep 19	0.48	Sep 19 2002
MAXIMUM PEAK FLOW			7630	Aug 24	a10300	Jul 31 1985
MAXIMUM PEAK STAGE			9.81	Aug 24	11.82	Jul 31 1985
INSTANTANEOUS LOW FLOW			0.31	Sep 25	0.31	Sep 25 2002
ANNUAL RUNOFF (CFSM)	1.06		0.59		1.33	
ANNUAL RUNOFF (INCHES)	14.33		8.01		18.02	
10 PERCENT EXCEEDS	51		38		77	
50 PERCENT EXCEEDS	15		5.9		16	
90 PERCENT EXCEEDS	4.4		1.7		6.6	

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

