

## 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 mi<sup>2</sup>.

**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 sea level.

**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 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)	Date	Time	Discharge ft <sup>3</sup> /s	Gage Height (ft)
Jan. 3	0845	3,530	6.57	Aug. 26	0430	6,720	9.16
May 24	1230	5,650	8.36	Sept. 7	0600	3,260	6.31
Aug. 14	----	4,360	a7.30	Sept. 16	1700	*9,300	*10.97

a Outside high-water mark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	6.1	4.3	4.9	11	47	19	13	13	12	2.2	3.3
2	3.6	6.2	4.6	4.4	210	13	18	12	12	19	2.3	3.1
3	3.9	6.4	4.7	522	23	54	16	14	12	21	2.3	3.1
4	29	6.4	3.8	14	15	52	16	13	11	6.0	2.3	3.0
5	7.6	6.7	2.7	7.4	14	13	15	12	12	5.3	2.4	4.4
6	4.6	6.5	3.7	5.8	13	70	15	11	12	5.4	3.0	4.6
7	4.5	6.5	5.5	5.7	13	32	14	11	11	4.9	3.3	339
8	248	6.6	20	5.3	38	14	14	36	11	4.5	5.5	9.4
9	22	6.9	14	137	14	13	143	14	10	4.3	7.7	109
10	68	7.0	5.4	17	11	13	83	12	10	4.3	5.4	155
11	6.6	64	5.1	7.5	9.5	13	131	12	10	5.0	3.9	6.7
12	5.8	6.6	5.1	8.8	41	13	32	12	10	3.9	4.3	4.7
13	7.1	5.6	5.6	11	31	12	17	16	11	4.5	4.0	4.2
14	58	6.1	5.7	10	9.8	21	16	9.8	33	3.9	e1090	4.0
15	5.9	6.3	5.3	327	9.5	55	16	9.2	25	3.3	e56	9.4
16	5.6	7.3	5.4	25	9.5	34	59	9.7	9.4	3.4	e15	3140
17	5.7	8.4	5.7	17	10	26	21	9.3	9.8	3.1	5.1	78
18	5.6	8.3	5.6	309	185	20	15	10	9.7	3.4	4.5	28
19	5.6	8.7	5.0	29	17	16	15	217	8.7	2.5	4.0	19
20	5.9	9.4	5.1	14	13	15	19	19	8.7	2.8	122	15
21	5.7	11	5.1	13	12	387	15	12	17	3.1	16	112
22	5.7	6.1	9.7	15	11	342	20	10	10	2.8	4.2	28
23	5.0	6.7	6.0	14	11	34	31	53	8.3	3.4	3.1	14
24	4.7	6.9	5.3	239	11	27	22	738	7.6	2.5	3.1	12
25	5.1	7.2	5.3	23	10	23	14	39	7.5	2.6	2.6	10
26	5.1	125	5.2	15	10	21	14	21	7.3	2.5	676	9.5
27	4.9	7.0	4.9	13	9.8	20	14	18	6.7	2.7	145	9.2
28	5.1	4.9	5.3	12	85	23	13	16	6.1	2.6	6.2	8.9
29	5.6	4.7	11	11	---	18	13	16	6.7	2.8	4.1	8.6
30	5.9	4.0	14	10	---	17	13	14	6.0	2.3	3.4	142
31	6.0	---	6.4	11	---	17	---	13	---	2.4	3.3	---
TOTAL	566.2	379.5	200.5	1857.8	857.1	1475	863	1422.0	332.5	152.2	2212.2	4297.1
MEAN	18.3	12.6	6.47	59.9	30.6	47.6	28.8	45.9	11.1	4.91	71.4	143
MAX	248	125	20	522	210	387	143	738	33	21	1090	3140
MIN	3.6	4.0	2.7	4.4	9.5	12	13	9.2	6.0	2.3	2.2	3.0
CFSM	.60	.42	.21	1.97	1.01	1.57	.95	1.51	.36	.16	2.35	4.71
IN.	.69	.46	.25	2.27	1.05	1.80	1.06	1.74	.41	.19	2.71	5.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1999, BY WATER YEAR (WY)

MEAN	28.3	35.8	38.3	36.9	34.4	50.1	49.9	50.6	38.8	52.6	39.7	45.6
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	8.20	12.6	6.47	10.6	17.4	11.7	14.4	20.8	11.1	4.91	5.66	9.02
(WY)	1993	1999	1999	1985	1992	1985	1985	1986	1999	1999	1995	1998

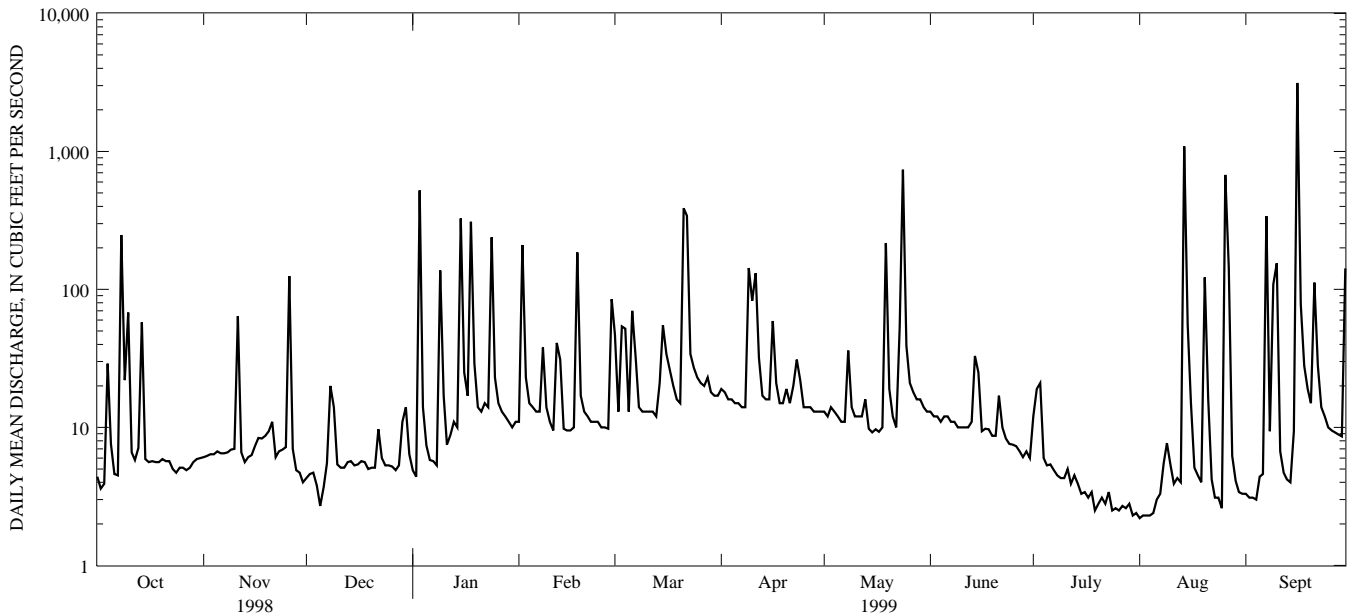
e Estimated.

FRANKFORD CREEK BASIN

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SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1982 - 1999	
ANNUAL TOTAL	10636.5		14615.1			
ANNUAL MEAN	29.1		40.0		41.8	
HIGHEST ANNUAL MEAN					61.7	1996
LOWEST ANNUAL MEAN					22.2	1995
HIGHEST DAILY MEAN	635	Jan 23	3140	Sep 16	3140	Sep 16 1999
LOWEST DAILY MEAN	2.7	Dec 5	2.2	Aug 1	2.1	Sep 16 1995
ANNUAL SEVEN-DAY MINIMUM	4.0	Nov 30	2.3	Jul 30	2.3	Jul 30 1999
INSTANTANEOUS PEAK FLOW			b9300	Sep 16	b10300	Jul 31 1985
INSTANTANEOUS PEAK STAGE			10.97	Sep 16	11.82	Jul 31 1985
INSTANTANEOUS LOW FLOW			1.6	Jul 24 <sup>c</sup>	.60	Aug 31 1994
ANNUAL RUNOFF (CFSM)	.96		1.32		1.38	
ANNUAL RUNOFF (INCHES)	13.02		17.88		18.69	
10 PERCENT EXCEEDS	66		53		80	
50 PERCENT EXCEEDS	13		10		16	
90 PERCENT EXCEEDS	5.1		3.8		7.2	

<sup>b</sup> From rating curve extended above 8,000 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 9.97 ft.  
<sup>c</sup> Also Aug. 2-6.



1-YEAR HYDROGRAPH  
 OCTOBER 1, 1998 TO SEPTEMBER 30, 1999