

Water-Data Report 2010

01379780 GREEN POND BROOK BELOW PICATINNY LAKE, AT PICATINNY ARSENAL, NJ

PASSAIC RIVER BASIN

LOCATION.--Lat 40°56'58", long 74°33'26" referenced to North American Datum of 1983, Rockaway Township, Morris County, NJ, Hydrologic Unit 02030103, on left bank 100 ft upstream from bridge on Whitmore Avenue at Picatinny Arsenal, 200 ft downstream from dam on Picatinny Lake, and 4.4 mi north of Dover.

DRAINAGE AREA.--9.16 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1984 to current year.

REVISED RECORDS.--WDR NJ-90-1: 1987 (M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 694.91 ft above NGVD of 1929 (U.S. Army, Picatinny Arsenal, benchmark).

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 5, 1984 reached an elevation of 699.0 ft above NGVD of 1929 (200 ft upstream from bridge on Whitmore Avenue).

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	3.0	22	11	43	32	22	144	22	3.0	0.90	0.37	2.0
2	3.0	18	11	38	28	21	87	19	2.8	0.80	0.38	2.0
3	3.0	16	35	33	26	23	99	27	2.3	0.68	0.35	1.5
4	2.9	14	35	29	22	23	56	23	2.2	0.58	0.54	1.5
5	2.5	13	35	26	20	22	56	20	2.0	0.51	0.79	1.6
6	2.2	12	34	22	19	23	51	18	1.7	0.51	0.78	1.4
7	2.2	11	30	18	17	23	44	15	1.3	0.49	0.66	1.6
8	2.2	9.8	27	e18	15	25	48	13	1.1	0.33	0.60	3.8
9	2.2	11	44	e17	14	29	34	10	1.2	0.35	0.59	3.6
10	2.1	11	46	e17	17	34	27	9.0	2.1	0.78	0.59	2.4
11	1.5	10	42	e17	17	36	27	8.0	2.0	1.2	0.56	2.3
12	1.3	9.0	37	e16	16	41	23	11	1.9	1.2	0.45	2.1
13	1.3	8.1	38	e16	15	96	20	12	4.0	2.2	0.34	2.0
14	2.0	9.1	49	e17	13	381	17	11	6.5	3.9	0.26	2.0
15	1.9	8.2	43	10	13	215	15	7.2	5.2	3.4	0.28	2.0
16	0.56	7.5	42	10	13	168	14	7.1	3.9	2.2	0.28	2.0
17	0.51	7.1	38	13	12	138	14	6.5	4.0	1.5	1.7	2.0
18	0.51	6.5	33	16	12	94	12	10	3.2	1.1	2.8	1.9
19	1.3	6.7	30	16	11	96	11	13	2.6	1.3	2.3	1.6
20	1.9	13	29	15	11	78	9.5	11	2.2	1.3	2.1	0.77
21	1.9	13	25	15	10	63	8.4	9.8	1.9	1.0	2.4	1.6
22	1.9	13	22	16	9.8	60	7.9	8.8	1.8	0.77	2.4	2.4
23	1.5	13	20	15	12	122	7.0	10	2.2	0.69	2.6	2.4
24	1.6	12	18	14	17	102	6.3	8.8	2.0	0.63	2.6	2.3
25	6.8	12	17	66	23	90	14	7.7	1.8	0.64	1.9	2.1
26	6.6	12	29	102	29	86	27	6.8	1.5	0.64	2.0	2.0
27	7.2	11	99	91	26	74	34	5.8	1.4	0.58	2.3	1.7
28	16	9.2	96	75	24	64	31	5.0	1.6	0.49	2.1	2.0
29	21	8.7	77	51	---	89	28	4.2	1.7	0.56	2.0	2.0
30	21	9.2	62	45	---	119	25	3.8	1.2	0.54	2.0	2.1
31	21	---	53	38	---	151	---	3.3	---	0.44	2.0	---
Total	144.58	336.1	1,207	935	493.8	2,608	997.1	346.8	72.3	32.21	41.02	60.67
Mean	4.66	11.2	38.9	30.2	17.6	84.1	33.2	11.2	2.41	1.04	1.32	2.02
Max	21	22	99	102	32	381	144	27	6.5	3.9	2.8	3.8
Min	0.51	6.5	11	10	9.8	21	6.3	3.3	1.1	0.33	0.26	0.77
Cfsm	0.51	1.22	4.25	3.29	1.93	9.18	3.63	1.22	0.26	0.11	0.14	0.22
In.	0.59	1.36	4.90	3.80	2.01	10.59	4.05	1.41	0.29	0.13	0.17	0.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	9.28	14.9	23.3	20.4	17.7	26.8	25.6	17.7	13.1	5.48	6.60	6.59
Max	33.3	44.8	60.7	51.2	47.5	84.1	56.4	66.7	76.2	18.4	38.5	36.7
(WY)	(1990)	(2007)	(1997)	(1996)	(2008)	(2010)	(2007)	(1989)	(2003)	(1990)	(2000)	(1987)
Min	0.71	0.18	0.19	0.20	1.24	3.96	2.48	4.74	1.66	1.04	0.45	1.06
(WY)	(1985)	(2002)	(2002)	(2002)	(2002)	(2002)	(1985)	(2005)	(2007)	(2010)	(1999)	(2001)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1985 - 2010	
Annual total	5,425.70		7,274.58			
Annual mean	14.9		19.9		15.6	
Highest annual mean					22.1	1990
Lowest annual mean					5.04	2002
Highest daily mean	99	Dec 27	^a 381	Mar 14	^a 381	Mar 14, 2010
Lowest daily mean	0.30	Sep 22	0.26	Aug 14	^b 0.03	Oct 8, 2007
Annual seven-day minimum	1.2	Oct 12	0.39	Aug 10	0.04	Oct 3, 2007
Maximum peak flow			^a 670	Mar 14	^c 1,300	Apr 16, 2007
Maximum peak stage			^a 4.88	Mar 14	^d 6.90	Apr 16, 2007
Instantaneous low flow			^a 0.05	Sep 20	^a 0.00	Dec 31, 2001
Annual runoff (cfsm)	1.62		2.18		1.70	
Annual runoff (inches)	22.03		29.54		23.14	
10 percent exceeds	30		48		36	
50 percent exceeds	11		10		9.3	
90 percent exceeds	3.4		0.78		1.3	

^a From regulation at Picatinny Lake.

^b Estimated.

^c From rating curve extended above 500 ft³/s.

^d From high-water mark.

