

01403400 GREEN BROOK AT SEELEY MILLS, NJ

LOCATION.--Lat 40°39'58", long 74°24'14", Somerset County, Hydrologic Unit 02030105, on right bank at Seeley Mills, 250 ft downstream from Blue Brook, 300 ft downstream from bridge on Diamond Hill Road, and 0.5 mi northwest of Scotch Plains.

DRAINAGE AREA.--6.23 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1959-64, 1969: annual maximum, water years 1969-79. June 1979 to current year. Fragmentary records 1944-53 in the files of the U.S. Geological Survey. Crest-stage data 1927-38, 1958-68 in files of Union County Park Commission.

REVISED RECORDS.--WDR-NJ 81-1: 1979(M). WDR-NJ 87-1: 1971(M), 1973(M), 1975(M).

GAGE.--Water-stage recorder. Datum of gage is 184.44 ft above NGVD of 1929. From 1944 to 1953, water-stage recorder and masonry dam about 400 ft downstream, above lower Seeley Mills dam at different datum. From July 1969 to May 1979, crest-stage gage about 450 ft downstream below lower Seeley Mills dam (washed out May 29, 1968) at different datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 23, 1938 reached an elevation of 196.5 ft, New Jersey Geological Survey datum, above lower Seeley Mills dam, discharge, 5,840 ft³/s, computed by State Water Policy Commission.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 28	1030	336	2.76	Apr 2	1815	399	2.95
Mar 28	2230	*528	*3.29	Sep 14	1745	274	2.68

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	1.2	79	4.0	4.0	6.8	15	5.2	1.6	3.0	0.89	1.5
2	4.1	1.2	23	3.6	3.7	6.5	140	3.6	1.6	3.0	0.87	1.3
3	3.4	1.2	11	3.8	3.7	5.9	80	3.4	1.9	1.8	0.86	1.1
4	3.0	15	7.9	7.9	4.9	4.8	32	3.3	3.9	1.3	0.85	1.1
5	2.8	6.7	6.4	6.3	5.0	4.7	20	3.2	2.0	1.2	0.85	1.1
6	2.7	3.6	6.3	53	5.4	4.8	16	3.1	4.3	1.4	0.84	1.1
7	2.6	3.0	25	18	5.8	12	15	3.0	5.1	1.4	0.83	1.1
8	2.6	2.7	18	38	6.7	28	50	3.0	2.5	27	0.83	1.0
9	2.6	2.8	12	20	11	13	18	2.9	1.7	6.0	0.82	0.69
10	2.5	2.7	54	13	27	8.3	14	2.8	1.8	2.8	0.81	0.71
11	2.5	2.7	28	12	11	7.8	12	2.8	2.1	1.7	0.79	0.71
12	2.5	18	13	18	7.4	9.8	10	2.8	1.8	1.4	0.78	0.71
13	2.5	22	9.8	12	6.1	9.1	9.5	2.7	1.5	1.4	0.78	0.71
14	2.6	6.2	7.8	73	28	8.0	8.7	2.7	1.5	1.4	0.77	42
15	4.6	4.2	6.4	27	59	7.2	8.2	2.7	1.4	1.3	0.81	2.5
16	4.9	3.8	5.7	15	18	6.9	6.6	2.6	2.1	1.3	0.79	1.3
17	2.5	3.5	5.4	12	13	6.5	6.1	2.3	1.7	2.1	0.76	1.1
18	2.5	3.3	4.6	9.3	9.4	6.3	5.8	2.1	1.4	1.9	0.74	1.0
19	5.8	3.2	4.5	8.0	7.1	5.8	5.4	2.0	1.3	1.3	2.9	0.96
20	2.9	3.7	4.0	8.0	6.7	6.8	5.2	4.4	1.3	1.2	2.0	0.96
21	2.4	5.2	3.5	7.2	8.1	8.8	4.6	2.8	1.3	1.1	1.5	1.1
22	2.6	3.4	3.5	5.8	8.4	6.7	4.2	2.8	3.3	1.1	1.3	0.91
23	2.1	3.3	22	5.7	8.3	16	4.4	2.7	1.9	1.1	1.1	0.89
24	2.0	5.2	13	5.4	7.0	30	5.0	2.7	1.4	1.1	1.1	0.82
25	1.8	14	6.2	5.8	7.2	20	4.2	2.8	1.3	1.7	1.1	0.82
26	1.6	6.8	4.7	5.7	6.4	14	3.8	2.8	1.2	1.1	1.2	1.2
27	1.5	4.5	4.4	4.9	5.9	10	5.6	2.5	3.2	1.1	1.3	1.4
28	1.5	101	3.9	4.5	5.8	146	4.2	3.1	3.0	1.0	2.5	0.93
29	1.4	25	4.0	4.3	---	105	3.7	2.8	6.8	0.98	1.8	1.2
30	1.7	9.5	4.0	4.2	---	31	4.3	2.3	4.4	0.95	1.7	1.1
31	1.3	---	4.0	4.2	---	19	---	2.0	---	0.92	1.8	---
TOTAL	86.5	288.6	405.0	419.6	300.0	575.5	521.5	89.9	70.3	76.05	35.97	73.02
MEAN	2.79	9.62	13.1	13.5	10.7	18.6	17.4	2.90	2.34	2.45	1.16	2.43
MAX	7.0	101	79	73	59	146	140	5.2	6.8	27	2.9	42
MIN	1.3	1.2	3.5	3.6	3.7	4.7	3.7	2.0	1.2	0.92	0.74	0.69
CFSM	0.45	1.54	2.10	2.17	1.72	2.98	2.79	0.47	0.38	0.39	0.19	0.39
IN.	0.52	1.72	2.42	2.51	1.79	3.44	3.11	0.54	0.42	0.45	0.21	0.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2005, BY WATER YEAR (WY)

MEAN	6.64	9.16	12.1	11.5	11.5	16.7	17.0	12.1	7.65	6.29	4.79	8.75
MAX	31.9	22.4	46.9	27.1	22.3	40.9	41.1	42.0	28.3	18.9	16.1	97.1
(WY)	(1997)	(1986)	(1984)	(1996)	(1998)	(1994)	(1983)	(1989)	(2003)	(1984)	(1990)	(1999)
MIN	1.21	1.48	1.62	1.67	2.24	5.11	3.50	2.44	0.35	0.32	1.16	1.68
(WY)	(1995)	(1999)	(1999)	(1981)	(2002)	(1985)	(1985)	(1999)	(1999)	(1999)	(2005)	(1994)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1979 - 2005	
ANNUAL TOTAL	3,693.49		2,941.94		10.3	
ANNUAL MEAN	10.1		8.06		18.2	
HIGHEST ANNUAL MEAN					3.25	
LOWEST ANNUAL MEAN					1,470	
HIGHEST DAILY MEAN	117	Feb 6	146	Mar 28	1,470	Sep 16, 1999
LOWEST DAILY MEAN	0.99	Jul 10	0.69	Sep 9	0.00	Sep 11, 1981
ANNUAL SEVEN-DAY MINIMUM	1.3	Jul 5	0.78	Aug 12	0.05	Sep 24, 1981
MAXIMUM PEAK FLOW			528	Mar 28	6,240a	Aug 2, 1973
MAXIMUM PEAK STAGE			3.29	Mar 28	16.10b	Aug 2, 1973
INSTANTANEOUS LOW FLOW			0.65	Sep 8-9	0.00	Sep 11, 1981
ANNUAL RUNOFF (CFSM)	1.62		1.29		1.66	
ANNUAL RUNOFF (INCHES)	22.05		17.57		22.55	
10 PERCENT EXCEEDS	22		18		21	
50 PERCENT EXCEEDS	4.9		3.5		4.7	
90 PERCENT EXCEEDS	2.2		1.1		1.4	

a From rating curve extended above 600 ft³/s on basis of slope area measurement of peak flow.

b Site and datum then in use.

c Estimated

