



Water-Data Report 2007

01399100 MIDDLE BROOK AT BURNT MILLS, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°38'58", long 74°40'54" referenced to North American Datum of 1983, Bedminster Township, Somerset County, NJ, Hydrologic Unit 02030105, on right bank just upstream of low dam, 1,200 ft upstream of bridge on River Road East (Cutting Whitney Road), 2,400 ft downstream of Hoopstick Brook, 1.2 mi northeast of Burnt Mills, and 2.2 mi west of Pluckemin.

DRAINAGE AREA.--6.67 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Low-flow partial-record station, water years 1964-67, 1975. June 2006 to current year.

GAGE.--Two water-stage recorders at concrete dam with stainless-steel v-notch in the center. Datum of gage is 95 ft above NAVD of 1988 from topographic map. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Flow past station may be affected by irrigation pumpage upstream of gage.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 11	2145	659	8.33
Oct 28	1000	713	8.65
Nov 8	1315	861	8.99
Jan 1	0900	957	9.08
Jan 8	0145	656	8.35
Mar 2	0830	991	9.27
Apr 15	1545	*995	9.17
Apr 15	2145	908	*9.34
Aug 8	0630	874	8.91

01399100 MIDDLE BROOK AT BURNT MILLS, NJ—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[*e*, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	e2.8	6.3	5.8	216	2.2	6.2	4.5	7.2	0.82	0.39	0.55	2.1
2	2.0	9.2	6.5	24	2.4	286	6.5	38	0.90	0.33	0.46	1.4
3	1.4	5.8	4.4	13	2.4	19	4.9	9.7	0.84	0.56	0.42	1.5
4	1.3	4.5	4.1	10	1.8	9.9	37	7.5	21	0.34	7.5	1.4
5	e56	4.0	3.7	9.5	1.4	6.7	15	e6.4	3.2	37	1.0	1.6
6	4.3	3.7	3.5	11	1.3	4.3	8.0	5.3	1.7	3.4	0.60	1.1
7	3.0	3.6	3.6	7.8	1.4	3.6	6.5	4.7	1.3	1.4	0.61	0.95
8	2.5	254	2.9	205	1.3	3.4	5.5	4.3	1.1	0.91	107	0.87
9	2.3	36	2.7	23	1.3	3.0	4.8	e3.9	1.0	0.72	4.9	0.92
10	2.0	15	2.7	14	1.5	3.1	4.3	e3.7	0.96	0.59	100	0.91
11	78	10	2.7	9.6	1.3	5.7	4.1	e3.6	0.92	1.1	11	5.4
12	40	9.0	2.6	8.6	1.4	4.1	45	3.1	1.1	1.9	5.1	2.4
13	8.4	13	3.3	7.9	1.5	4.2	e13	3.0	1.6	0.56	3.5	1.1
14	5.8	17	3.6	8.3	1.6	5.0	7.8	2.5	1.1	0.47	2.5	0.94
15	5.0	8.7	3.0	8.0	1.3	6.8	516	2.3	0.89	0.41	2.0	0.96
16	4.3	68	2.7	6.8	1.0	16	139	3.4	1.3	0.46	1.9	0.76
17	74	33	2.4	5.0	1.1	10	27	4.0	1.7	0.39	43	0.69
18	47	12	2.4	4.5	1.4	9.9	18	2.4	0.94	0.68	13	0.89
19	11	9.7	2.3	5.2	1.1	9.4	13	2.2	0.70	0.59	4.3	0.77
20	55	7.7	2.1	4.5	1.3	65	9.9	2.2	2.0	0.49	5.5	0.64
21	15	6.3	2.1	3.6	5.0	36	8.0	2.0	1.00	0.31	61	0.66
22	9.0	5.7	2.2	3.8	12	58	6.8	1.7	1.6	0.24	28	0.90
23	7.2	51	e100	3.8	e5.8	50	5.9	1.6	0.79	23	11	1.1
24	5.9	25	13	3.4	e2.8	25	5.3	1.4	0.59	6.2	8.0	0.59
25	5.0	11	18	3.3	e2.4	16	4.8	1.3	0.92	1.6	6.3	0.49
26	3.9	8.6	44	2.4	e2.2	11	5.8	1.2	0.68	0.90	5.1	0.51
27	3.5	7.4	12	2.6	10	9.4	153	1.2	0.60	0.74	4.1	0.51
28	248	6.5	8.2	3.0	14	7.5	22	1.1	1.2	1.6	3.2	0.55
29	22	5.8	6.8	2.8	---	5.9	13	0.99	0.81	1.4	2.6	0.42
30	11	5.4	6.0	2.3	---	5.1	9.2	0.85	0.54	2.0	2.4	0.41
31	7.8	---	5.4	2.4	---	4.7	---	0.82	---	0.79	2.0	---
Total	744.4	662.9	284.7	635.1	84.2	709.9	1,123.6	133.56	53.80	91.47	448.54	33.44
Mean	24.0	22.1	9.18	20.5	3.01	22.9	37.5	4.31	1.79	2.95	14.5	1.11
Max	248	254	100	216	14	286	516	38	21	37	107	5.4
Min	1.3	3.6	2.1	2.3	1.0	3.0	4.1	0.82	0.54	0.24	0.42	0.41
Cfsm	3.60	3.31	1.38	3.07	0.45	3.43	5.62	0.65	0.27	0.44	2.17	0.17
In.	4.15	3.70	1.59	3.54	0.47	3.96	6.27	0.74	0.30	0.51	2.50	0.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2006 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	24.0	22.1	9.18	20.5	3.01	22.9	37.5	4.31	1.79	5.81	7.91	6.29
Max	24.0	22.1	9.18	20.5	3.01	22.9	37.5	4.31	1.79	8.66	14.5	11.5
(WY)	(2007)	(2007)	(2007)	(2007)	(2007)	(2007)	(2007)	(2007)	(2007)	(2006)	(2007)	(2006)
Min	24.0	22.1	9.18	20.5	3.01	22.9	37.5	4.31	1.79	2.95	1.35	1.11
(WY)	(2007)	(2007)	(2007)	(2007)	(2007)	(2007)	(2007)	(2007)	(2007)	(2007)	(2006)	(2007)

SUMMARY STATISTICS

	Water Year 2007		Period of Record	
Annual total	5,005.61			
Annual mean	13.7		13.7	
Highest annual mean			13.7	2007
Lowest annual mean			13.7	2007
Highest daily mean	516	Apr 15	516	Apr 15, 2007
Lowest daily mean	0.24	Jul 22	0.19	Aug 23, 2006
Annual seven-day minimum	0.45	Jul 16	0.29	Aug 19, 2006
Maximum peak flow	995	Apr 15	1,670	Jun 28, 2006
Maximum peak stage	9.34	Apr 15	9.90	Jun 28, 2006
Instantaneous low flow	0.19	Jul 22-23	0.003	Aug 26, 1964
Annual runoff (cfs)	2.06		2.06	
Annual runoff (inches)	27.92		27.94	
10 percent exceeds	24		24	
50 percent exceeds	3.6		3.6	
90 percent exceeds	0.73		0.73	

