



Water-Data Report 2006

**01403150 WEST BRANCH MIDDLE BROOK NEAR MARTINSVILLE, NJ**

RARITAN RIVER BASIN

LOCATION.--Lat 40°36'44", long 74°35'27" referenced to North American Datum of 1983, Bridgewater Township, Somerset County, NJ, Hydrologic Unit 02030105, on left bank 150 ft upstream from bridge on Crim Road, 1.4 mi northwest of Martinsville, and 1.8 mi upstream from confluence with East Branch Middle Brook.

DRAINAGE AREA.--1.99 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--June 1979 to current year.

REVISED RECORDS.--WDR NJ-91-1: 1990. WDR NJ-96-1: 1980-94 (P), WDR NJ-99-1: 1990 (M), 1997 (M).

GAGE.--Water-stage recorder. Datum of gage is 240.48 ft above NGVD of 1929 (levels by Somerset County).

REMARKS.--Records fair, except for estimated daily discharges and daily discharges below 1 ft<sup>3</sup>/s, which are poor. Several measurements of water temperature were made during the year. Satellite rain and gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 08	2245	*819	*7.32
Dec 16	0715	267	4.88
Jun 28	0700	354	5.36
Jul 05	1000	252	4.80
Jul 21	1800	388	5.54

## 01403150 WEST BRANCH MIDDLE BROOK NEAR MARTINSVILLE, NJ—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**  
**DAILY MEAN VALUES**  
[*e*, estimated]

<b>Day</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>1</b>	0.64	1.4	3.2	3.1	1.7	1.4	1.0	1.1	0.78	1.7	0.96	0.74
<b>2</b>	0.64	1.4	2.4	8.1	1.6	1.9	1.0	1.1	3.0	1.4	0.88	21
<b>3</b>	0.64	1.5	2.0	33	7.7	1.8	1.0	1.1	15	1.3	0.86	3.9
<b>4</b>	0.64	1.5	1.9	5.6	13	1.5	1.4	1.1	3.7	1.1	0.85	0.93
<b>5</b>	0.64	1.5	1.7	4.1	6.4	1.4	1.4	1.0	2.7	27	0.81	1.1
<b>6</b>	0.64	1.5	1.6	3.3	2.8	1.4	1.2	0.97	1.7	e7.8	0.81	1.2
<b>7</b>	0.66	2.1	1.5	2.7	2.1	1.4	1.1	0.90	8.7	e2.2	0.81	0.74
<b>8</b>	112	2.1	1.4	2.6	1.8	1.4	7.3	0.90	3.4	1.6	0.78	0.65
<b>9</b>	16	2.9	1.6	2.4	1.6	1.5	2.5	0.90	2.3	1.4	0.76	0.64
<b>10</b>	1.4	2.6	1.5	2.0	1.4	1.8	1.6	0.90	1.7	3.0	1.3	0.61
<b>11</b>	2.2	2.2	1.5	6.0	1.4	1.7	1.4	0.95	1.4	1.3	0.87	0.57
<b>12</b>	39	2.1	1.5	4.9	1.7	2.5	1.3	11	1.3	2.9	0.77	0.57
<b>13</b>	16	2.1	1.4	3.0	1.5	2.0	1.3	1.5	1.2	3.2	0.72	0.59
<b>14</b>	20	2.0	1.2	13	1.4	1.9	1.3	1.2	9.9	1.4	0.72	3.3
<b>15</b>	4.1	2.0	1.2	6.2	2.0	1.6	1.5	1.9	2.8	1.3	0.74	2.6
<b>16</b>	2.0	9.3	51	3.1	5.0	1.5	1.3	9.8	1.4	1.2	0.72	2.3
<b>17</b>	1.5	11	5.1	2.7	11	1.4	1.2	2.5	1.2	1.1	0.70	1.0
<b>18</b>	1.4	2.7	3.4	28	3.4	1.4	1.1	1.6	1.0	1.0	0.68	0.86
<b>19</b>	1.2	2.0	2.8	4.5	2.0	1.4	1.1	5.7	0.90	1.2	0.70	0.78
<b>20</b>	1.1	1.8	2.3	2.8	1.7	1.3	1.0	2.7	0.88	1.0	0.69	0.72
<b>21</b>	1.1	2.6	1.9	2.3	1.5	1.2	0.97	1.7	0.81	26	0.65	0.70
<b>22</b>	3.3	20	1.7	2.0	1.5	1.2	3.2	1.4	0.81	6.6	0.64	0.69
<b>23</b>	5.0	4.2	1.7	14	1.6	1.2	18	1.2	0.81	2.9	0.64	0.92
<b>24</b>	3.9	3.2	1.8	4.1	1.6	1.1	6.8	1.1	13	1.6	0.64	0.81
<b>25</b>	24	2.3	4.6	3.1	1.7	1.1	2.9	1.0	2.8	1.3	0.64	0.74
<b>26</b>	5.5	2.0	6.7	2.3	1.6	1.3	2.0	1.1	3.3	1.2	1.5	0.72
<b>27</b>	2.6	1.9	3.3	1.8	1.5	1.1	1.7	1.2	2.1	1.3	0.79	0.72
<b>28</b>	1.9	1.8	2.7	1.9	1.4	1.1	1.4	0.93	41	1.8	2.4	0.76
<b>29</b>	1.5	2.6	6.9	2.2	---	1.1	1.3	0.81	3.1	1.2	1.6	1.9
<b>30</b>	1.5	20	3.9	2.5	---	1.1	1.2	0.81	2.0	1.1	1.2	0.73
<b>31</b>	1.5	---	3.0	2.1	---	1.0	---	0.81	---	0.97	0.81	---
<b>Total</b>	274.20	116.3	128.4	179.4	83.6	44.7	71.47	60.88	134.69	110.07	27.64	53.49
<b>Mean</b>	8.85	3.88	4.14	5.79	2.99	1.44	2.38	1.96	4.49	3.55	0.89	1.78
<b>Max</b>	112	20	51	33	13	2.5	18	11	41	27	2.4	21
<b>Min</b>	0.64	1.4	1.2	1.8	1.4	1.0	0.97	0.81	0.78	0.97	0.64	0.57
<b>Cfsm</b>	4.44	1.95	2.08	2.91	1.50	0.72	1.20	0.99	2.26	1.78	0.45	0.90
<b>In.</b>	5.13	2.17	2.40	3.35	1.56	0.84	1.34	1.14	2.52	2.06	0.52	1.00

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2006, BY WATER YEAR (WY)**

	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>Mean</b>	2.41	3.35	4.30	4.33	4.02	5.88	5.09	4.03	2.32	2.05	1.19	1.86
<b>Max</b>	9.28	10.5	11.5	11.9	9.02	21.4	11.6	19.4	7.91	6.40	6.46	11.7
(WY)	(1990)	(1989)	(1984)	(1996)	(1988)	(1994)	(1983)	(1989)	(2003)	(1984)	(2000)	(1999)
<b>Min</b>	0.12	0.22	0.13	0.12	0.41	1.44	0.74	0.76	0.27	0.08	0.12	0.11
(WY)	(2002)	(2002)	(1999)	(1981)	(2002)	(2006)	(1985)	(1986)	(1999)	(1980)	(1980)	(1980)

**01403150 WEST BRANCH MIDDLE BROOK NEAR MARTINSVILLE, NJ—Continued****SUMMARY STATISTICS**

	<b>Calendar Year 2005</b>	<b>Water Year 2006</b>	<b>Water Years 1979 - 2006</b>	
<b>Annual total</b>	1,280.66	1,284.84		
<b>Annual mean</b>	3.51	3.52	3.41	
<b>Highest annual mean</b>			5.48	1989
<b>Lowest annual mean</b>			0.77	2002
<b>Highest daily mean</b>	112 Oct 8	112 Oct 8	318 Sep 16, 1999	
<b>Lowest daily mean</b>	0.43 Jun 1	0.57 Sep 11, 12	0.00 Sep 19, 1980	
<b>Annual seven-day minimum</b>	0.48 May 28	0.62 Sep 7	0.00 Sep 19, 1980	
<b>Maximum peak flow</b>		819 Oct 8	<sup>a</sup> 1,490	Sep 16, 1999
<b>Maximum peak stage</b>		7.32 Oct 8	9.30	Sep 16, 1999
<b>Instantaneous low flow</b>		0.57 Sep 10 - 14	0.00	Many days
<b>Annual runoff (cfsm)</b>	1.76	1.77	1.71	
<b>Annual runoff (inches)</b>	23.94	24.02	23.26	
<b>10 percent exceeds</b>	5.3	6.5	6.0	
<b>50 percent exceeds</b>	1.5	1.5	0.92	
<b>90 percent exceeds</b>	0.57	0.76	0.15	

<sup>a</sup> From rating curve extended above 400 ft<sup>3</sup>/s on basis of indirect computation of peak flow.

