



Water-Data Report 2010

**01396091 SOUTH BRANCH RARITAN RIVER AT ROUTE 46, AT BUDD LAKE, NJ**

RARITAN RIVER BASIN

LOCATION.--Lat 40°51'34", long 74°45'39" referenced to North American Datum of 1983, Mount Olive Township, Morris County, NJ, Hydrologic Unit 02030105, on upstream right wingwall of bridge on US Route 46 in village of Budd Lake, 300 ft west of Wolfe Road, 700 ft downstream of dam on Budd Lake, and 5.0 mi east of Hackettstown.

DRAINAGE AREA.--5.08 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--June 2008 to current year.

GAGE.--Water-stage and depth-of-hole recorder (fathometer, for NJDOT bridge scour monitoring) and crest-stage gages. Datum of gage is 940 ft NAVD of 1988 (from topographic map).

REMARKS.--Records fair. Several measurements of water temperature were made during the water year. Flow occasionally regulated by Budd Lake. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan 25	1215	44	6.08
Mar 14	1030	*92	*6.78
Mar 23	0015	55	6.28
Mar 30	1300	51	6.21

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**  
**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>	1.9	12	7.7	17	18	9.1	43	5.7	5.0	1.6	0.18	0.09
<b>2</b>	1.9	11	7.9	16	16	8.6	39	5.2	4.8	1.2	0.20	0.07
<b>3</b>	1.8	8.8	14	15	15	8.4	35	8.7	4.3	1.0	0.15	0.08
<b>4</b>	1.9	7.6	16	14	14	7.4	32	19	4.0	0.82	0.15	0.06
<b>5</b>	1.7	6.7	17	13	13	5.9	29	25	3.7	0.66	0.14	0.06
<b>6</b>	1.7	6.1	16	12	13	5.2	26	21	3.4	0.49	0.12	0.05
<b>7</b>	2.0	5.3	14	12	12	5.0	24	18	2.9	0.31	0.12	0.05
<b>8</b>	1.8	4.6	13	11	11	5.3	22	16	2.3	0.22	0.11	0.05
<b>9</b>	1.7	4.0	20	10	11	5.4	22	14	2.2	0.24	0.14	0.05
<b>10</b>	2.0	3.7	21	9.8	11	5.2	20	12	2.9	1.3	0.15	0.05
<b>11</b>	1.8	3.8	19	9.2	12	5.4	17	11	2.8	1.2	0.15	0.04
<b>12</b>	1.8	3.7	17	8.7	11	7.5	15	12	2.5	0.95	0.14	0.07
<b>13</b>	1.8	3.6	19	8.2	10	33	15	11	3.4	1.8	0.12	0.06
<b>14</b>	1.8	4.3	21	7.7	9.9	86	13	10	4.6	4.3	0.12	0.05
<b>15</b>	2.1	4.3	21	7.0	9.5	86	12	9.8	4.3	4.6	0.12	0.05
<b>16</b>	2.9	17	19	6.0	9.3	78	12	9.0	4.1	4.0	0.11	0.09
<b>17</b>	3.2	27	18	6.3	9.0	69	13	8.2	5.4	3.5	0.11	0.05
<b>18</b>	3.3	22	16	7.0	8.6	60	11	9.1	5.6	3.0	0.11	0.05
<b>19</b>	2.6	19	14	6.3	8.1	53	11	9.6	5.1	1.4	0.10	0.05
<b>20</b>	2.3	21	14	5.3	7.2	46	9.7	9.1	4.7	0.19	0.11	0.05
<b>21</b>	2.1	19	13	4.8	6.6	41	8.9	8.5	4.3	0.17	0.11	0.04
<b>22</b>	2.1	17	13	9.0	5.8	40	8.0	7.8	4.0	0.16	0.18	0.07
<b>23</b>	2.1	15	12	11	7.0	51	7.2	7.8	4.0	0.17	0.17	0.05
<b>24</b>	5.2	13	12	9.9	8.7	46	5.7	7.4	3.5	0.15	0.12	0.05
<b>25</b>	11	12	11	28	e9.3	41	6.9	6.9	3.4	0.17	0.11	0.04
<b>26</b>	9.5	11	15	36	e10	37	11	6.6	3.0	0.15	0.10	0.04
<b>27</b>	9.9	9.9	26	33	e10	32	13	6.4	2.6	0.15	0.09	0.07
<b>28</b>	18	8.5	25	29	9.8	29	11	6.4	2.9	0.16	0.09	0.08
<b>29</b>	18	8.1	22	26	---	37	8.9	5.9	3.0	0.20	0.09	0.05
<b>30</b>	15	6.7	19	23	---	44	7.0	5.6	2.2	0.16	0.10	0.73
<b>31</b>	12	---	18	20	---	48	---	5.3	---	0.16	0.09	---
<b>Total</b>	146.9	315.7	510.6	431.2	295.8	1,035.4	508.3	318.0	110.9	34.58	3.90	2.39
<b>Mean</b>	4.74	10.5	16.5	13.9	10.6	33.4	16.9	10.3	3.70	1.12	0.13	0.08
<b>Max</b>	18	27	26	36	18	86	43	25	5.6	4.6	0.20	0.73
<b>Min</b>	1.7	3.6	7.7	4.8	5.8	5.0	5.7	5.2	2.2	0.15	0.09	0.04

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2008 - 2010, 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>	4.02	8.76	19.7	11.9	8.66	19.4	11.7	8.10	6.25	3.63	2.70	1.70
<b>Max</b>	4.74	10.5	23.0	13.9	10.6	33.4	16.9	10.3	9.91	6.69	5.78	2.72
(WY)	(2010)	(2010)	(2009)	(2010)	(2010)	(2010)	(2010)	(2010)	(2009)	(2009)	(2009)	(2008)
<b>Min</b>	3.30	6.99	16.5	9.91	6.75	5.47	6.52	5.94	3.70	1.12	0.13	0.08
(WY)	(2009)	(2009)	(2010)	(2009)	(2009)	(2009)	(2009)	(2009)	(2010)	(2010)	(2010)	(2010)

**01396091 SOUTH BRANCH RARITAN RIVER AT ROUTE 46, AT BUDD LAKE, NJ—Continued****SUMMARY STATISTICS**

	<b>Calendar Year 2009</b>	<b>Water Year 2010</b>	<b>Water Years 2008 - 2010</b>	
<b>Annual total</b>	2,772.0	3,713.67		
<b>Annual mean</b>	7.59	10.2	8.96	
<b>Highest annual mean</b>			10.2	2010
<b>Lowest annual mean</b>			7.74	2009
<b>Highest daily mean</b>	27	Nov 17	86	Mar 14-15, 2010
<b>Lowest daily mean</b>	1.7	Sep 22	0.04	Many days
<b>Annual seven-day minimum</b>	1.8	Oct 3	0.05	Sep 20, 2010
<b>Maximum peak flow</b>			92	Mar 14, 2010
<b>Maximum peak stage</b>			6.78	Mar 14, 2010
<b>Instantaneous low flow</b>			0.04	Many days
<b>10 percent exceeds</b>	15	22	19	
<b>50 percent exceeds</b>	6.2	6.9	6.2	
<b>90 percent exceeds</b>	2.1	0.11	0.22	

