



Water-Data Report 2007

01398102 SOUTH BRANCH RARITAN RIVER AT SOUTH BRANCH, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°32'49", long 74°41'47" referenced to North American Datum of 1983, Branchburg Township, Somerset County, NJ, Hydrologic Unit 02030105, on left downstream wingwall of bridge on Studdiford Drive (South Branch Road) at village of South Branch, 0.8 mi upstream from mouth, and 2.7 mi southeast of Readington.

DRAINAGE AREA.--265 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 1976-83, 1998 to current year. Annual maximum, water years 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 45.54 ft above NGVD of 1929.

REMARKS.--Radio stage telemetry at station. Flow regulated by Spruce Run (see 01396790) and Round Valley (see 01397050) Reservoirs.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 20.29 ft, Sep 16, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 15.46 ft, Apr 16 at 0415.

**DISCHARGE MEASUREMENTS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Date	Discharge, in ft³/s
Nov 8, 2006	842
Feb 28, 2007	361
May 29, 2007	167
Aug 23, 2007	258

01398102 SOUTH BRANCH RARITAN RIVER AT SOUTH BRANCH, NJ—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976-83, 1998 to current year.

REMARKS.--Total nitrogen (00600) equals the sum of filtered ammonia-plus-organic nitrogen (00623), filtered nitrite-plus-nitrate nitrogen (00631), and total particulate nitrogen (49570). Cooperative Network Site Descriptor: Watershed Integrator, NJ Department of Environmental Protection Watershed Management Area 8.

COOPERATION.--Physical measurements and samples for laboratory analysis were collected in cooperation with the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, and suspended residue were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 1 of 3

[Remark codes: <, less than; E, estimated.]

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 corrctd NTRU (63676)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf 25 degC μ S/cm (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)
Nov 08...	1120	842	34	.145	.117	752	10.4	94	7.5	238	13.5	10.6	77
Feb 28...	1230	361	24	.161	.127	758	14.1	102	7.6	490	7.5	1.8	95
May 29...	1130	167	5.8	.065	.050	766	7.5	86	7.3	329	22.5	22.5	100
Aug 23...	1130	258	3.6	.135	.102	764	9.3	98	7.7	274	--	17.7	79

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 3

[Remark codes: <, less than; E, estimated.]

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO ₃ (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total non-filterable, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
Nov 08...	18.8	7.32	2.74	13.7	56	24.8	E.07	8.7	14.8	131	142	5	.39
Feb 28...	23.9	8.52	3.02	51.4	50	105	E.07	6.9	15.1	250	279	11	.59
May 29...	24.8	10.3	2.10	19.4	76	38.3	E.06	7.6	17.8	172	190	8	.37
Aug 23...	19.2	7.47	2.09	18.4	60	32.8	E.07	10.8	15.0	147	160	2	.29

01398102 SOUTH BRANCH RARITAN RIVER AT SOUTH BRANCH, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 3

[Remark codes: <, less than; E, estimated.]

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrate + nitrite water fltrd, mg/L as N (00631)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Total nitro- gen, water, fltrd, mg/L (00602)	Total nitro- gen, water, unfltrd mg/L (00600)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Boron, water, fltrd, µg/L (01020)
Nov 08...	.040	1.41	.41	1.8	2.2	--	.131	.285	3.7	<.1	3.7	4.5	29
Feb 28...	.079	1.43	.11	2.0	2.1	.038	.054	.108	.8	<.1	.8	6.4	17
May 29...	.062	1.40	.07	1.8	1.8	.048	.059	.077	.5	<.1	.5	2.4	29
Aug 23...	.029	1.19	.05	1.5	1.5	.059	.071	.084	.4	<.1	.4	4.1	25