



Water-Data Report 2007

01400640 MILLSTONE RIVER NEAR GROVERS MILL, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°18'48", long 74°35'21" referenced to North American Datum of 1983, West Windsor Township, Mercer County, NJ, Hydrologic Unit 02030105, at bridge on Cranbury Road, 1.0 mi east of Grovers Mill, 1.4 mi southeast of Plainsboro, and 2.0 mi upstream from Cranbury Brook.

DRAINAGE AREA.--42.6 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 1959-65, 1971, 1986-88, 1992-93, 1995, 1998 to current year.

GAGE.--Staff gage.

REMARKS.--Flow includes some sewage effluent.

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

Date	Discharge, in ft³/s
Dec 11, 2006	48.5
Mar 1, 2007	90.1
May 21, 2007	74.2
Aug 23, 2007	64.6

01400640 MILLSTONE RIVER NEAR GROVERS MILL, NJ—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1999 to current year. Published as "at Grovers Mill" (station 01400650) 1976-95, 1997-98.

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: Agricultural Land Use Indicator, NJ Department of Environmental Protection Watershed Management Area 10.

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)
Dec 11...	1120	48	10	.087	.068	769	12.7	97	6.7	250	8.5	4.2	58
Mar 01...	1025	90	18	.069	.052	767	13.5	97	5.9	435	8.0	2.1	55
May 21...	1030	74	5.7	.150	.115	763	8.0	82	6.8	300	16.0	16.2	65
Aug 23...	1010	65	6.1	.171	.133	767	7.5	80	6.7	242	18.0	18.4	53

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)
Dec 11...	12.5	6.45	3.78	18.5	17	38.1	.14	10.1	23.3	138	135	2	.64
Mar 01...	11.8	6.10	3.76	49.0	11	92.2	.17	7.5	21.2	211	237	10	.49
May 21...	12.4	8.40	3.85	23.5	26	41.9	.17	6.9	20.8	151	146	6	.52
Aug 23...	10.4	6.48	4.29	20.9	23	35.6	.15	7.4	20.6	130	137	1	.41

01400640 MILLSTONE RIVER NEAR GROVERS MILL, 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)
Dec 11...	.395	3.32	.07	4.0	4.0	E.007	E.007	.063	.7	<.1	.7	2.2	33
Mar 01...	.222	2.85	.17	3.3	3.5	E.008	.008	.109	1.5	<.1	1.5	2.5	23
May 21...	.065	3.99	.07	4.5	4.6	.040	.048	.107	.6	<.1	.6	3.8	43
Aug 23...	.074	2.27	.03	2.7	2.7	.033	.040	.078	.3	<.1	.3	4.0	40