



Water-Data Report 2006

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 2005 TO SEPTEMBER 2006**

Date	Discharge, in ft³/s
Nov 9, 2005	27.4
Feb 8, 2006	59.5
May 30, 2006	28.2
Jun 5, 2006	83.4
Aug 7, 2006	18.8

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). Bacteria samples were collected synoptically over a 30-day period during the summer.

COOPERATIVE NETWORK SITE DESCRIPTOR: Agricultural Land Use Indicator, New Jersey Department of Environmental Protection (NJDEP) Watershed Management Area 10.

COOPERATION.--Samples were collected in cooperation with the NJDEP. Bacteria samples were provided by the local county health department under the direction of the NJDEP through the County Environmental Health Act. Determinations of filtered ammonia, filtered orthophosphorus, BOD, total suspended residue, fecal coliform, E. coli, and enterococcus bacteria were performed by the NJ Department of Health and Senior Services.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 1 of 4

[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 (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
Nov 09...	1210	27	1.7	.085	.068	762	9.3	88	6.7	307	15.5	12.5	81
Feb 08...	1325	60	8.5	.082	.063	755	12.0	96	6.6	279	3.5	5.3	61
May 30...	0900	28	5.0	.132	.102	764	7.0	80	6.3	297	26.5	21.9	65
Aug 07...	1240	19	2.3	.118	.089	764	10.1	121	6.9	339	24.5	24.7	90

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 2 of 4

[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 CaCO3 (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 at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
Nov 09...	14.6	10.9	4.82	20.9	22	40.8	.18	11.2	31.5	172	188	3	.38
Feb 08...	12.5	7.18	3.42	24.7	16	45.0	.17	8.4	25.7	152	157	2	.39
May 30...	13.1	7.83	4.34	23.4	18	42.5	.20	8.2	25.8	163	174	3	.63
Aug 07...	15.0	12.8	5.57	25.7	34	42.9	.27	7.3	31.4	192	193	<1	.56

01400640 MILLSTONE RIVER NEAR GROVERS MILL, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 4

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

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Particulate 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)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
Nov 09...	.066	5.41	.04	5.8	5.8	.012	.017	.034	.3	<.1	.3	2.7	E1.6
Feb 08...	.111	3.34	.06	3.7	3.8	E.006	.004	.044	.5	<.1	.5	2.2	<1.0
May 30...	.084	6.00	.03	6.6	6.7	.023	.019	.059	.3	<.1	.3	3.4	E1.4
Aug 07...	.015	6.93	.03	7.5	7.5	.011	.015	.035	<.1	<.1	<.1	3.5	<1.0

**WATER-QUALITY
DATA**

**WATER YEAR
OCTOBER 2005 TO
SEPTEMBER 2006**

Part 4 of 4

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

Date	Boron, water, fltrd, ug/L (01020)
Nov 09...	53
Feb 08...	30
May 30...	56
Aug 07...	86

01400640 MILLSTONE RIVER NEAR GROVERS MILL, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

[Remark codes: <, less than.]

Date	Time	Temper- ature, water, deg C (00010)	Entero- cocci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, ECbroth water, MPN/ 100 mL (31615)
Jun					
07...	1000	17.5	650	<10	500
14...	1005	18.3	110	80	300
21...	0955	22.6	10	90	80
28...	1035	23.1	5,200	2,600	1,300
Jul					
12...	0955	--	50	40	80