

01400640 MILLSTONE RIVER NEAR GROVERS MILL, NJ

LOCATION.--Lat 40°18'48", long 74°35'21", Mercer County, Hydrologic Unit 02030105, at bridge on Cranbury Road near Grovers Mill, 1.4 mi southeast of Plainsboro and 2.0 mi upstream from Cranbury Brook.

DRAINAGE AREA.--43.4 mi².

PERIOD OF RECORD.--Water years 1999 to current year. Station location was 01400650 during water years 1976-95, 1997-98.

REMARKS.--Total nitrogen (00600) equals the sum of dissolved ammonia plus organic nitrogen (00623), dissolved nitrite plus nitrate nitrogen (00631), and total particulate nitrogen (49570).

COOPERATION.--Concentrations of ammonia in samples collected during November to December and August to September; orthophosphate in every sampling period except February to March; and nitrite, biochemical oxygen demand, total suspended residue, fecal coliform, E. coli, and enterococcus bacteria were determined by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 correctd 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 unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
NOV 03...	1320	27	1.8	.099	.077	765	9.6	93	6.6	273	14.5	14.1	70
FEB 01...	1150	37	14	.045	.035	775	13.2	93	6.4	345	-5	1.7	72
JUN 02...	0920	30	6.3	.116	.091	762	7.4	77	6.4	298	13.0	17.1	74
AUG 25...	1030	15	2.3	.102	.078	769	8.2	89	6.4	371	24.0	19.8	110
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 unfltrd 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 03...	14.6	8.05	5.16	20.8	22	39.3	.2	9.4	25.7	153	145	6	.30
FEB 01...	14.8	8.46	3.88	29.9	19	55.5	.2	10.3	28.3	183	178	--	.44
JUN 02...	12.5	10.4	4.24	24.9	19	44.2	.2	8.7	25.9	168	172	--	.47
AUG 25...	16.6	15.8	6.15	25.2	43	42.5	.3	9.1	32.5	210	219	1	.52
Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	
NOV 03...	.018	3.75	.007	.04	4.1	4.1	.015	.015	.035	.2	<.1	.2	
FEB 01...	.265	4.57	--	.10	5.0	5.1	<.006	.004	.075	.8	<.1	.8	
JUN 02...	.096	5.68	--	.04	6.1	6.2	.015	.021	.064	.4	<.1	.4	
AUG 25...	.045	8.08	--	.03	8.6	8.6	.024	.033	.054	.2	<.1	.1	

01400640 MILLSTONE RIVER NEAR GROVERS MILL, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV 03...	3.0	<1.0	53	--	--
FEB 01...	1.7	--	40	15	1.5
JUN 02...	3.2	<1.0	52	5	.41
AUG 25...	3.1	<1.0	87	--	--

Remark codes used in this table:
 < -- Less than.

WATER-COLUMN BACTERIA ANALYSES

Samples were collected synoptically over a 30-day period during the summer.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)
JUN 08...	1020	--	100	400	40
15...	1020	28	<10	200	300
22...	1025	20	<10	200	270
29...	1020	--	1,900	1,800	230
JUL 06...	1020	34	310	10,000	>16,000

Remark codes used in this table:
 < -- Less than.
 > -- Greater than.