



Water-Data Report 2006

01378780 PRIMROSE BROOK AT MORRISTOWN NATIONAL HISTORICAL PARK, NJ

PASSAIC RIVER BASIN

LOCATION.--Lat 40°45'54", long 74°31'47" referenced to North American Datum of 1983, Harding Township, Morris County, NJ, Hydrologic Unit 02030103, at bridge on Camp Trail Road in Morristown National Historical Park, 20 ft downstream of unnamed tributary, 500 ft west of Mount Kemble, and 2.4 mi northeast of Bernardsville.

DRAINAGE AREA.--1.07 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 1998 to current year.

GAGE.--Staff gage.

**DISCHARGE MEASUREMENTS
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Date	Discharge, in ft ³ /s
Dec 13, 2005	1.08
Feb 8, 2006	2.58
Jun 2, 2006	1.32
Aug 22, 2006	0.42

01378780 PRIMROSE BROOK AT MORRISTOWN NATIONAL HISTORICAL PARK, NJ—Continued**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 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). Bacteria samples were collected synoptically over a 30-day period during the summer.

COOPERATIVE NETWORK SITE DESCRIPTOR: Background and Low-Level Mercury Assessment special study site, New Jersey Department of Environmental Protection (NJDEP) Watershed Management Area 6. Samples on Oct. 24 and Dec. 2 were for the low-level mercury assessment.

COOPERATION.--Physical measurements and samples for laboratory analyses on Oct. 24 and Dec. 2 were provided by personnel of 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 5

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

Date	Time	Sample type	Turbidity	UV	UV	Baro-	Dis-	pH,	Specif.	
			white light, det ang 90+/-30 dis- charge, corrctd cfs (00061)	absorb- ance, 254 nm, wat filt corrtcd NTRU (63676)	absorb- ance, 280 nm, wat filt units /cm (50624)			water, unfltrd field, std units (00400)		
Oct										
24...	1250	Field Blank	--	--	--	--	--	--	--	--
24...	1315	Environmental	--	.8	--	--	753	9.8	86	7.7
Dec										
02...	1015	Field Blank	--	--	--	--	--	--	--	--
02...	1030	Environmental	--	1.1	--	--	746	11.2	92	7.6
13...	1020	Environmental	1.1	.4	.031	.025	753	14.6	107	6.6
Feb										
08...	1010	Environmental	2.6	.5	.035	.025	755	12.7	98	6.6
Jun										
05...	1040	Environmental	1.3	1.9	.059	.045	749	10.1	99	7.2
Aug										
22...	1020	Environmental	.42	2.2	.055	.042	755	--	--	7.6
										132
										22.0

01378780 PRIMROSE BROOK AT MORRISTOWN NATIONAL HISTORICAL PARK, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 2 of 5

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

Date	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO ₃ (00900)	Calcium water, mg/L (00915)	Magnes- ium, water, mg/L (00925)	Potas- sium, water, mg/L (00935)	Sodium, water, mg/L (00930)	ANC, wat unf			Chlor- ide, lab, mg/L as CaCO ₃ (90410)	Fluor- ide, water, mg/L (00950)	Silica, water, mg/L (00955)	Sulfate water, mg/L (00945)	Residue water, filtr, sum of consti- tuents mg/L (70301)	Residue on evap. 180degC wat flt mg/L (70300)
							fixed end pt, mg/L as CaCO ₃ (00940)	Chlor- ide, lab, mg/L as CaCO ₃ (90410)	Fluor- ide, water, mg/L (00950)						
Oct															
24...	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24...	9.5	--	--	--	--	--	--	--	--	--	--	--	--	--	
Dec															
02...	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
02...	6.3	--	--	--	--	--	--	--	--	--	--	--	--	--	
13...	1.9	44	11.3	3.85	.68	5.38	32	4.86	E.09	22.6	14.6	84	88		
Feb															
08...	4.0	37	9.13	3.44	.53	5.32	27	4.83	.10	22.4	14.0	--	79		
Jun															
05...	13.7	42	10.7	3.74	.72	5.33	35	5.11	E.09	24.8	13.3	86	98		
Aug															
22...	16.5	46	11.9	4.05	.79	5.75	40	5.66	E.08	27.3	13.2	94	96		

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 5

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

Date	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia		Nitrite + nitrate water, fltrd, mg/L (00623)	Partic- ulate nitro- gen, water, fltrd, mg/L (00608)	Total nitro- gen, water, fltrd, mg/L (00631)	Total nitro- gen, water, unfltrd mg/L (00602)	Ortho- phosphate, water, fltrd, mg/L as P (00600)	Phos- phorus, water, fltrd, mg/L (00671)	Phos- phorus, water, unfltrd mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sediment total, mg/L (00694)	Inor- ganic carbon, suspnd sediment total, mg/L (00688)	Organic carbon, suspnd sediment total, mg/L (00689)
		total org-N, water, mg/L as N (00608)	Ammonia water, mg/L as N (00608)											
Oct														
24...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dec														
02...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	1	E.05	.031	.30	.03	--	.38	E.009	<.004	.008	<.1	<.1	<.1	<.1
Feb														
08...	1	E.05	.012	.37	<.02	--	--	--	E.003	E.002	.1	<.1	.1	
Jun														
05...	3	.11	.010	.27	.05	.37	.43	.014	.007	.013	.6	<.1	.6	
Aug														
22...	1	.14	.018	.36	.03	.50	.53	.022	.012	.017	.5	<.1	.5	

01378780 PRIMROSE BROOK AT MORRISTOWN NATIONAL HISTORICAL PARK, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 4 of 5

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

Date	Organic carbon, water, filtrd, 5 day, 20 degC	BOD, water, unfltrd		Barium, water, unfltrd		Beryllium, water, unfltrd		Boron, water, unfltrd	Cadmium, water, unfltrd	Chromium, water, unfltrd	Copper, water, unfltrd	Iron, water, unfltrd	Lead, water, unfltrd	
		mg/L (00681)	mg/L (00310)	Arsenic water, fltrd,	Arsenic water, unfltrd	recoverable, ug/L (01000)	recoverable, ug/L (01002)	recoverable, ug/L (01007)	recoverable, ug/L (01012)	recoverable, ug/L (01020)	recoverable, ug/L (01022)	recoverable, ug/L (01027)	recoverable, ug/L (01034)	recoverable, ug/L (01042)
Oct														
24...	--	--	--	--	--	--	--	--	--	--	--	--	--	
24...	--	--	--	--	--	--	--	--	--	--	--	--	--	
Dec														
02...	--	--	--	--	--	--	--	--	--	--	--	--	--	
02...	--	--	--	--	--	--	--	--	--	--	--	--	--	
13...	1.1	<1.0	--	--	--	--	7.4	--	--	--	--	--	--	
Feb														
08...	1.1	<1.0	.14	.22	10.4	<.06	7.2	8	<.04	.29	E.5	39	E.05	
Jun														
05...	1.6	E1.2	--	--	--	--	8.3	--	--	--	--	--	--	
Aug														
22...	1.2	E1.3	.35	.42	12.2	<.06	8.0	E7	<.04	.29	.7	143	.20	

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 5 of 5

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

Date	Manganese, water, unfltrd		Mercury, water, unfltrd	Nickel, water, unfltrd	Selenium, water, unfltrd	Silver, water, unfltrd	Zinc, water, unfltrd
	Manganese, ug/L (01055)	Mercury, ng/L (50287)	Mercury, ug/L (71900)	Nickel, ug/L (01067)	Selenium, ug/L (01147)	Silver, ug/L (01077)	Zinc, ug/L (01092)
Oct							
24...	--	.04	--	--	--	--	--
24...	--	.32	--	--	--	--	--
Dec							
02...	--	1.04	--	--	--	--	--
02...	--	E.41	--	--	--	--	--
13...	--	--	--	--	--	--	--
Feb							
08...	3.7	--	<.010	.38	.10	<.16	E2
Jun							
05...	--	--	--	--	--	--	--
Aug							
22...	9.2	--	<.010	.49	.10	<.16	E1

01378780 PRIMROSE BROOK AT MORRISTOWN NATIONAL HISTORICAL PARK, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 1 of 5

[Remark codes: <, less than.]

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-DB water, water, fltrd, ug/L (39732)	CIAT, 0.7u GF ug/L (38746)	CEAT, water, fltrd, ug/L (04040)	OIET, water, fltrd, ug/L (04038)	Hydroxy carbo- furan, wat flt ug/L (50355)	Aci- fluor- fen, water, fltrd ug/L (49308)	3- Hydroxy carbo- furan, wat flt ug/L (49315)	Aldi- carb sulfone water, fltrd ug/L (49313)	Aldi- carb sulf- oxide, wat flt ug/L (49314)	Aldi- carb, water, fltrd, ug/L (49312)	Atra- zine, water, fltrd, ug/L (39632)
Jun 05...	1040	<.190	<.04	<.02	<.03	<.08	<.032	<.008	<.028	<.02	<.102	<.15	<.008

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 2 of 5

[Remark codes: <, less than.]

Date	Bendio- carb, water, fltrd, ug/L (50299)	Benomyl water, fltrd, ug/L (50300)	Bensul- furone, methyl, water, fltrd, ug/L (61693)	Ben- tazon, water, fltrd, 0.7u GF ug/L (38711)	Broma- cil, water, fltrd, 0.7u GF ug/L (04029)	Brom- oxynil, water, fltrd, 0.7u GF ug/L (49311)	Caf- feine, water, fltrd, 0.7u GF ug/L (50305)	Car- baryl, water, fltrd, 0.7u GF ug/L (49310)	Carbo- furan, water, fltrd, 0.7u GF ug/L (49309)	Chlor- aben- methyl, water, fltrd, 0.7u GF ug/L (61188)	Chlori- muron, water, fltrd, 0.7u GF ug/L (50306)	Chloro- di- amino- s-tri- azine, water, fltrd, 0.7u GF ug/L (04039)	Clopyr- alid, water, fltrd, 0.7u GF ug/L (49305)
Jun 05...	<.08	<.022	<.02	<.02	<.02	<.04	<.018	<.02	<.016	<.02	<.032	<.04	<.07

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 5

[Remark codes: <, less than.]

Date	Dacthal mono- acid, water, fltrd, 0.7u GF ug/L (04031)	Dicamba water, fltrd 0.7u GF ug/L (49304)	Di- chlor- prop, water, fltrd 0.7u GF ug/L (38442)	Dinoseb water, fltrd 0.7u GF ug/L (49302)	Diphen- amid, water, fltrd 0.7u GF ug/L (49301)	Diuron, water, fltrd 0.7u GF ug/L (04033)	Fenuron water, fltrd 0.7u GF ug/L (49300)	Flumet- sulam, water, fltrd 0.7u GF ug/L (49297)	Fluo- meturon water, fltrd 0.7u GF ug/L (61694)	Imaza- quin, water, fltrd 0.7u GF ug/L (38811)	Imaze- thapyr, water, fltrd, 0.7u GF ug/L (50356)	Imida- cloprid, water, fltrd, 0.7u GF ug/L (50407)	Imida- cloprid, water, fltrd, 0.7u GF ug/L (61695)
Jun 05...	<.01	<.03	<.04	<.03	<.04	<.01	<.01	<.10	<.04	<.02	<.04	<.04	<.020

01378780 PRIMROSE BROOK AT MORRISTOWN NATIONAL HISTORICAL PARK, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 4 of 5

[Remark codes: <, less than.]

Date	Linuron water, filtrd 0.7u GF ug/L (38478)	MCPA, water, filtrd 0.7u GF ug/L (38482)	MCPB, water, filtrd 0.7u GF ug/L (38487)	Meta- laxyl, water, filtrd, 0.7u GF ug/L (50359)	Methio- carb, water, filtrd 0.7u GF ug/L (38501)	Meth- omyl, water, filtrd 0.7u GF ug/L (49296)	Metsul- furon, water, filtrd, 0.7u GF ug/L (61697)	Chloro- phenyl) methyl- urea, water, filtrd 0.7u GF ug/L (61692)	Neburon water, filtrd 0.7u GF ug/L (49294)	Nico- sul- furon, water, filtrd 0.7u GF ug/L (50364)	Norflur azon, water, filtrd 0.7u GF ug/L (49293)	Ory- zalin, water, filtrd 0.7u GF ug/L (49292)	Oxamyl, water, filtrd 0.7u GF ug/L (38866)
					N-(4-								
Jun 05...	<.01	<.07	<.10	<.03	<.034	<.070	<.07	<.04	<.01	<.04	<.02	<.02	<.05

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 5 of 5

[Remark codes: <, less than.]

Date	Pic- loram, water, filtrd 0.7u GF ug/L (49291)	Propham water, filtrd 0.7u GF ug/L (49236)	Propi- conazole, water, filtrd, 0.7u GF ug/L (50471)	Pro- poxur, water, filtrd 0.7u GF ug/L (38538)	Siduron water, filtrd, 0.7u GF ug/L (38548)	Sulfo- ruron, water, filtrd, 0.7u GF ug/L (50337)	Tebu- thiuron water, filtrd 0.7u GF ug/L (82670)	Terba- cil, water, filtrd 0.7u GF ug/L (04032)	Tri- clopyr, water, filtrd 0.7u GF ug/L (49235)	
	-									
Jun 05...	<.03	<.030	<.01	<.008	<.02	<.090	<.026	<.026	<.03	

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

[Remark codes: <, less than.]

Date	Time	Enter- cocci, m-E Temp- erature, water, deg C (00010)	E coli, m-TEC MF, water, col/ 100 mL (31649)	Fecal coli- form, MF, water, col/ 100 mL (31633)	ECbroth MPN/ 100 mL (31615)
		-			
Jul 12...	0952	17.4	80	<10	20
19...	0848	24.0	720	240	230
26...	0913	17.2	170	210	80
Aug 02...	0802	20.1	220	30	110
09...	0808	17.8	100	70	140