

Water-Data Report 2011

01493112 CHESTERVILLE BRANCH NEAR CRUMPTON, MD

 Upper Chesapeake Basin
 Chester-Sassafras Subbasin

LOCATION.--Lat 39°15'25.4", long 75°56'24.5" referenced to North American Datum of 1983, Kent County, MD, Hydrologic Unit 02060002, on middle pier of double box culvert at downstream side of State Highway 291, 1.2 mi upstream from mouth, and 1.5 mi northwest of Crumpton.

 DRAINAGE AREA.--6.12 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 2011 to September 2011.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Part 1 of 7

[%, percent; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; mm, millimeters; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Medium name	Sample type	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Discharge, instantaneous, ft ³ /s (00061)	Dissolved oxygen, water, unfiltered, % saturation (00301)	
							Dissolved oxygen, water, unfiltered, mg/L (00300)	% saturation (00301)
07-06-2011	1300	Surface water	Regular	762	30.0	4.9	8.9	98
07-27-2011	1230	Surface water	Replicate	762	29.0	3.4	8.6	97
07-27-2011	1245	QC sample - Surface water	Replicate	--	--	--	--	--
08-09-2011	1215	Surface water	Regular	752	25.0	--	9.5	106
08-14-2011	1200	Surface water	Regular	756	--	1,720	6.2	71
09-08-2011	1100	Surface water	Regular	759	23.0	12	7.8	85
09-23-2011	1130	Surface water	Regular	--	--	--	7.8	--

01493112 CHESTERVILLE BRANCH NEAR CRUMPTON, MD—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 2 of 7

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Date	Sample start time	pH, water, unfiltered, field, standard units (00400)	pH, water, unfiltered, laboratory, standard units (00403)	Specific conduc- tance, water, unfiltered, laboratory, µS/cm at 25 °C (90095)	Specific conduc- tance, water, unfiltered, laboratory, µS/cm at 25 °C (00095)	Tempera- ture, water, °C (00010)	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	Sampler type (84164)
07-06-2011	1300	6.8	7.4	198	205	20.3	--	Grab sample
07-27-2011	1230	7.0	7.5	--	202	21.3	2.6	Grab sample
07-27-2011	1245	--	7.4	--	--	--	--	Grab sample
08-09-2011	1215	7.0	--	--	198	20.2	--	US DH-81
08-14-2011	1200	6.2	--	--	62	21.5	--	US D-95 Teflon
09-08-2011	1100	6.6	7.2	147	144	19.5	--	US DH-81
09-23-2011	1130	6.5	6.9	151	156	19.0	--	US DH-81

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 3 of 7

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Date	Sample start time	Dissolved solids dried at 180 °C, water, filtered, mg/L (70300)	Hardness, water, mg/L as CaCO ₃ (00900)	Calcium, water, mg/L (00915)	Magne- sium, water, mg/L (00925)	Potassium, water, mg/L (00935)	Sodium, water, mg/L (00930)	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, mg/L as CaCO ₃ (29801)
07-06-2011	1300	Multiple verticals	125	71.6	19.9	5.34	3.18	5.64
07-27-2011	1230	Multiple verticals	157	71.3	20.1	5.12	3.22	5.64
07-27-2011	1245	Multiple verticals	145	70.5	19.9	5.09	3.25	5.60
08-09-2011	1215	Multiple verticals	--	--	--	--	--	--
08-14-2011	1200	Multiple verticals	--	--	--	--	--	--
09-08-2011	1100	Multiple verticals	103	49.4	12.9	4.17	4.50	4.05
09-23-2011	1130	Multiple verticals	94	50.5	12.8	4.49	5.16	4.44

01493112 CHESTERVILLE BRANCH NEAR CRUMPTON, MD—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 4 of 7

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Date	Sample start time	Alkalinity, water, filtered, inflection- point, incremental titration method, field, mg/L as CaCO ₃ (39086)	Bicarbonate, water, filtered, inflection- point, incremental titration method, field, mg/L (00453)	Bromide, water, filtered, mg/L (71870)	Carbon (inorganic plus organic), suspended sediment, total, mg/L (00694)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Inorganic carbon, suspended sediment, total, mg/L (00688)	Silica, water, filtered, mg/L as SiO ₂ (00955)
07-06-2011	1300	--	--	.028	.19	15.5	<.04	<.03	11.3
07-27-2011	1230	33	40	.032	--	14.9	<.04	--	12.7
07-27-2011	1245	34	41	.030	--	15.0	<.04	--	12.6
08-09-2011	1215	--	--	--	.31	--	--	--	--
08-14-2011	1200	--	--	--	6.46	--	--	--	--
09-08-2011	1100	--	--	--	.62	10.8	.04	--	9.35
09-23-2011	1130	24	29	--	--	12.0	.04	--	9.48

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 5 of 7

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Date	Sample start time	Nitrate									
		Sulfate, water, filtered, mg/L (00945)	Ammonia, water, filtered, mg/L as N (00608)	plus nitrite, water, filtered, mg/L as N (00631)	Nitrate, water, filtered, mg/L as N (00618)	Nitrite, water, filtered, mg/L as N (00613)	Organic nitrogen, water, filtered, mg/L (00607)	Organic nitrogen, water, unfiltered, mg/L (00605)	Orthophos- phate, water, filtered, mg/L (00660)	Orthophos- phate, water, filtered, mg/L as P (00671)	
07-06-2011	1300	3.07	.020	8.91	8.90	.017	.24	--	.041	.014	
07-27-2011	1230	2.94	.021	8.77	8.75	.016	.40	.29	.053	.017	
07-27-2011	1245	3.01	.019	8.75	8.74	.015	.36	.16	.051	.017	
08-09-2011	1215	--	.016	9.09	9.07	.012	--	--	.031	.010	
08-14-2011	1200	--	.200	1.09	1.07	.023	--	--	.541	.176	
09-08-2011	1100	4.93	.103	5.54	5.49	.044	.57	--	.082	.027	
09-23-2011	1130	5.75	.156	5.20	5.15	.047	.67	--	.444	.145	

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Part 6 of 7

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Date	Sample start time	Particulate	Phos-	Total	Total	Manga-			
		nitrogen, suspended in water,	phorus, water, filtered.	Phosphorus, water, unfiltered,	nitrogen, water, filtered,				
		mg/L (49570)	mg/L as P (00666)	mg/L as P (00665)	mg/L (62854)	mg/L (62855)	mg/L (00600)	µg/L (01046)	µg/L (01056)
07-06-2011	1300	.026	.011	.031	9.17	--	9.2	23.3	46.1
07-27-2011	1230	--	.016	.029	9.19	9.08	--	101	39.4
07-27-2011	1245	--	.015	.029	9.13	8.93	--	94.5	39.4
08-09-2011	1215	.029	.011	.027	8.84	--	8.9	--	--
08-14-2011	1200	.822	.192	.838	1.26	--	2.1	--	--
09-08-2011	1100	.079	.036	.108	6.21	--	6.3	186	82.5
09-23-2011	1130	--	.156	.781	6.03	--	--	346	185

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Date	Sample start time	Suspended sediment, sieve					
		Organic carbon, suspended sediment,	Organic carbon, water, filtered,	diameter, percent smaller than 0.0625	Suspended sediment, concentration,	Suspended sediment discharge,	tons per day
		total, mg/L (00689)	mg/L (00681)	mm (70331)	mg/L (80154)	day (80155)	
07-06-2011	1300	.19	1.26	--	6	.08	
07-27-2011	1230	--	--	--	--	--	
07-27-2011	1245	--	--	--	--	--	
08-09-2011	1215	--	--	--	4	--	
08-14-2011	1200	--	--	22	1,150	5,340	
09-08-2011	1100	--	--	--	14	.45	
09-23-2011	1130	--	--	96	335	--	