



Water-Data Report 2006

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ

GREAT EGG HARBOR RIVER BASIN

LOCATION.--Lat 39°30'50", long 74°46'47" referenced to North American Datum of 1983, Hamilton Township, Atlantic County, NJ, Hydrologic Unit 02040302, at bridge on U.S. Route 322 in Weymouth, 0.5 mi upstream from Deep Run, and 20.9 mi upstream from mouth.

DRAINAGE AREA.--154 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 1978-81, 1985 to current year.

GAGE.--Staff gage.

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

Date	Discharge, in ft ³ /s
Dec 8, 2005	266
Feb 14, 2006	253
May 24, 2006	122
Jun 29, 2006	417
Jul 12, 2006	266
Aug 8, 2006	98.1
Sep 27, 2006	135

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ—Continued**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1975 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. Samples on Dec. 8, Feb. 14, May 24, and Aug. 8 at 0940 were collected to fulfill the requirements of the Ambient Surface-Water-Quality Monitoring Network; Oct. 27, of the New Jersey Department of Environmental Protection (NJDEP) Low-Level Mercury Assessment; and May 24, June 29, July 12, Aug. 8 at 0950, and Sep. 27, of the NAWQA Mercury Topical Study. [May 24 was a collaborative sampling.]

COOPERATIVE NETWORK SITE DESCRIPTOR: Watershed Integrator and Low-Level Mercury Assessment special study site, NJDEP Watershed Management Area 15.

COOPERATION.--Physical measurements and samples for laboratory analyses on Oct. 27 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. Other samples were collected by personnel of the USGS, those on Dec. 8, Feb. 14, May 24, and Aug. 8 at 0940, in cooperation with the NJDEP. Determinations of filtered ammonia, filtered orthophosphorus, BOD, and total suspended residue on those dates, were performed by the NJ Department of Health and Senior Services. Determinations of fecal coliform, E. coli, and enterococcus bacteria were performed by the NJDEP, Bureau of Marine Water Monitoring Laboratory.

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

Part 1 of 5

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

Date	Time	Sample type	Instan- taneous dis- charge, cfs (00061)	Turbdty white light, det ang 90+/-30 corrcrd	UV absorb- ance, 254 nm, 254 nm, wat flt	UV absorb- ance, 254 nm, abs L/ (mgDOC*)	Baro- metric pres- sure, mm Hg	Dis- solved oxygen, mg/L	Dis- solved oxygen, percent of sat- uration	pH, water, unfltrd field, std units	Specif. conduc- tance, wat unf uS/cm	Specif. conduc- tance, 25 degC (00095)
				NTRU (63676)	/cm (50624)	L/ (63162)	/cm (61726)	(00025)	(00300)	(00301)	(00400)	
Oct												
27...	0830	Field Blank	--	--	--	--	--	--	--	--	--	--
27...	0900	Environmental	--	1.8	--	--	--	765	8.4	74	4.4	91
Dec												
08...	1230	Environmental	266	2.4	.478	4.9	.369	780	12.3	87	4.8	93
Feb												
14...	1330	Environmental	253	2.0	.297	5.3	.231	768	12.6	92	4.9	110
May												
24...	1040	Environmental	122	2.6	.219	3.9	.218	764	9.2	91	5.7	66
Jun												
29...	1115	Environmental	417	3.3	.996	4.8	--	763	5.8	67	4.5	73
Jul												
12...	0930	Environmental	266	2.4	1.590	5.6	--	764	6.0	70	4.5	67
Aug												
08...	0940	Environmental	98	2.9	.240	6.3	.191	760	7.8	89	5.8	59
08...	0950	Environmental	98	2.7	.169	4.0	--	760	7.8	89	5.8	59
Sep												
27...	0920	Environmental	135	1.8	--	--	--	763	8.9	90	5.8	67

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, 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, air, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO ₃	Calcium water, fltrd, mg/L (00900)	Magnes- ium, water, fltrd, mg/L (00915)	Potas- sium, water, fltrd, mg/L (00925)	Sodium, water, fltrd, mg/L (00935)	ANC, wat unf	Alka- linity, fixed wat flt end pt, mg/L as CaCO ₃ (90410)	Chlor- ide, wat flt end, lab, mg/L as CaCO ₃ (29801)	Fluor- ide, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)
Oct													
27...	--	--	--	--	--	--	--	--	--	--	--	--	
27...	6.4	10.1	--	--	--	--	--	--	--	--	--	--	
Dec													
08...	-1.5	2.2	12	2.37	1.43	1.32	9.39	<5	--	15.6	E.08	6.9	
Feb													
14...	7.0	2.9	13	2.70	1.50	1.30	14.0	<5	--	22.5	<.10	5.5	
May													
24...	20.5	14.9	11	2.39	1.34	1.26	6.95	5	5	10.7	<.10	5.2	
Jun													
29...	27.0	22.7	11	2.38	1.18	1.36	6.76	--	<5	10.6	--	6.44	
Jul													
12...	30.0	23.4	10	2.21	1.07	1.10	6.46	--	<5	10.6	--	3.00	
Aug													
08...	27.5	22.2	10	2.06	1.19	1.24	5.58	5	--	8.96	<.10	7.0	
08...	27.5	22.2	10	2.02	1.11	1.24	5.45	--	5	8.87	--	4.51	
Sep													
27...	16.5	15.9	11	2.29	1.31	1.32	6.48	--	5	10.8	--	5.12	

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 5

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

Date	Residue water, fltrd, sum of consti- tuents	Residue on evap. at 180degC wat flt	Residue total at 105 deg. C, sus- pended,	Ammonia + org-N, water, fltrd,	Ammonia water, mg/L as N (00623)	Nitrite + nitrate water, fltrd, mg/L as N (00608)	Nitrite water, fltrd, mg/L as N (00631)	Organic nitro- gen, water, unfltrd mg/L (00605)	Partic- ulate nitro- gen, water, susp, water, mg/L (49570)	Total nitro- gen, wat unf by anal ysis, water, mg/L (62855)	Total nitro- gen, water, fltrd, mg/L (00602)	Total nitro- gen, water, unfltrd mg/L (00600)	Ortho- phosphate, water, fltrd, mg/L (00660)
Oct													
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
Dec													
08...	--	63	2	.40	.062	.42	--	--	<.02	--	.81	--	--
Feb													
14...	--	72	1	.26	.102	.63	--	--	<.02	--	.89	--	--
May													
24...	39	48	5	.30	.074	.60	E.004	.23	.08	.90	.90	.98	.040
Jun													
29...	--	--	--	--	--	E.05	--	--	.09	.79	--	--	--
Jul													
12...	--	--	--	--	.041	.15	.005	.92	.09	1.10	--	--	.046
Aug													
08...	36	48	3	.22	.025	.54	--	--	.08	--	.77	.84	--
08...	29	--	--	--	.020	.59	.003	.16	.06	.77	--	--	.021
Sep													
27...	33	--	--	--	.029	.48	E.002	.24	.08	.75	--	--	--

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 4 of 5

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

Date	Ortho-phosphate, water, filtrd, mg/L as P (00671)	Phosphorus, water, filtrd, mg/L (00666)	Phosphorus, water, unfiltrd, 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)	BOD, water, unfiltrd 5 day, 20 degC mg/L (00310)	Boron, water, filtrd, ug/L (01020)	Iron, water, filtrd, ug/L (01046)	Mercury water filtrd, ng/L (50287)	Mercury suspnd sedimnt total, ng/L (62976)	Methyl-mercury water filtrd, ng/L (50285)
Oct												
27...	--	--	--	--	--	--	--	--	--	.16	--	--
27...	--	--	--	--	--	--	--	--	--	4.06	--	--
Dec												
08...	E.004	.006	.012	.4	<.1	.4	9.7	<1.0	26	--	--	--
Feb												
14...	E.006	.004	.010	.4	<.1	.4	5.6	E1.7	25	--	--	--
May												
24...	.013	.007	.020	.9	<.1	.9	5.6	E1.6	36	204	7.73	2.72
Jun												
29...	--	--	.041	1.1	<.1	1.1	20.9	--	--	899	12.6	2.83
Jul												
12...	.015	--	.053	1.3	<.1	1.3	28.6	--	--	1,800	17.8	2.91
Aug												
08...	E.004	.006	.028	.9	<.1	.9	3.8	<1.0	42	--	--	--
08...	.007	--	.026	.6	<.1	.6	4.2	--	--	225	7.16	2.46
Sep												
27...	E.005	--	.018	.6	<.1	.6	--	--	--	341	7.36	2.17
												.34

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 5 of 5

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

Date	Sus-		Sus-
	Methyl- mercury suspnd sedimnt total,	pended sedi- ment concen- tration	pended sedi- ment dis- charge,
	ng/L (62977)	mg/L (80154)	tons/d (80155)
Oct			
27...	--	--	--
27...	--	--	--
Dec			
08...	--	--	--
Feb			
14...	--	--	--
May			
24...	.136	3	.99
Jun			
29...	.131	8	9.0
Jul			
12...	.144	9	6.5
Aug			
08...	--	--	--
08...	.133	3	.79
Sep			
27...	.060	2	.73

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Date	Time	Enteric bacteria			
		Temper- ature, water, deg C (00010)	100 mL (31649)	E. coli, m-E MF, water, col/ 100 mL (31633)	Fecal coli- form, m-TEC MF, water, col/ 100 mL (31615)
Jun					
01...	0920	21.0	23	67	400
08...	0929	16.9	123	120	77
15...	1000	18.5	73	67	70
22...	0902	21.5	143	130	97
29...	0947	23.0	645	380	300