



## Water-Data Report 2009

## 01393440 ELIZABETH RIVER ABOVE URSINO LAKE, AT ELIZABETH, NJ

## PASSAIC RIVER BASIN

LOCATION.--Lat 40°40'37", long 74°13'35" referenced to North American Datum of 1983, Hillside Township, Union County, NJ, Hydrologic Unit 02030104, at bridge on North Avenue (State Route 439) 0.8 mi northwest of Elizabeth, 2.0 mi south of Hillside, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--16.8 mi<sup>2</sup>.

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1924, 2009.

REMARKS.--Cooperative Network Site Descriptor: Statewide Status, NJ Department of Environmental Protection Watershed Management Area 7.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, and suspended residue were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

WATER-QUALITY DATA  
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 1 of 5

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

Date	Time	Baro-metric pressure, mm Hg (00025)	Temper-ature, air, deg C (00020)	UV absorb-ance, 254 nm, wat flt units /cm (50624)	UV absorb-ance, 280 nm, wat flt units /cm (61726)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif-ic conduc-tance, µS/cm @ 25 degC (00095)	Turbdty white light, det ang 90+/ -30 corrcrd	Dis-solved solids, dried @ 180degC wat flt (63676)	Dis-solved solids, sum of constituents, mg/L (70301)
Dec												
02...	1030	764	7.5	.133	.100	9.5	79	7.5	565	7.1	6.0	340
Feb												
17...	0900	769	-1.5	.055	.039	12.7	96	8.1	1,140	3.8	2.2	627
May												
12...	0900	766	11.0	.126	.095	7.7	75	7.8	914	14.3	2.5	--
Aug												
19...	1000	761	28.0	.202	.137	5.3	62	7.6	810	22.8	4.1	E491
												E434

01393440 ELIZABETH RIVER ABOVE URSINO LAKE, AT ELIZABETH, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 2 of 5

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

Date	ANC, wat unf						Total			Inor- ganic			
	Hard- ness, water, mg/L as CaCO <sub>3</sub> (00900)	Sus- pended solids, water, unfiltrd mg/L (00530)	Calcium water, filtrd, mg/L (00915)	Magnes- ium, water, filtrd, mg/L (00925)	Potas- sium, water, filtrd, mg/L (00935)	Sodium, water, filtrd, mg/L (00930)	fixed end pt, mg/L as CaCO <sub>3</sub> (90410)	suspnd lab, mg/L as CaCO <sub>3</sub> (00694)	carbon, sedimnt total, mg/L (00940)	Chlor- ide, water, filtrd, mg/L (00950)	Fluor- ide, water, filtrd, mg/L (00688)	carbnd, sedimnt total, mg/L (00955)	
Dec 02...	170	2	54.3	8.41	3.11	42.4	110	.5	83.8	.10	<.04	12.2	28.5
Feb 17...	280	2	88.0	14.4	2.67	118	147	.5	228	.12	<.04	12.0	45.1
May 12...	240	1	78.0	12.2	2.97	76.1	147	.5	165	E.07	<.04	16.0	43.3
Aug 19...	230	3	73.3	11.8	3.32	61.0	133	.9	143	E.09	<.04	14.1	38.9

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 3 of 5

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

Date	Ammonia + org-N, water, filtrd, mg/L as N (00623)		Nitrate + Ammonia water, filtrd, mg/L as N (00608)	Ortho- phosphate, water, filtrd, mg/L as N (00631)	Partic- ulate nitro- gen, water, susps, mg/L as P (00671)	Phos- phorus, water, filtrd, mg/L as P (49570)	Phos- phorus, water, unfiltrd, mg/L as P (00666)	Total nitro- gen, water, unfiltrd, mg/L (00602)	Total nitro- gen, water, unfiltrd, mg/L (00600)	Barium, water, unfiltrd, recover -able, μg/L (01007)	Beryll- ium, water, unfiltrd, recover -able, μg/L (01012)	Chrom- ium, water, unfiltrd, recover -able, μg/L (01034)	
	Ammonia water, filtrd, mg/L as N (00623)	Ammonia water, filtrd, mg/L as N (00608)	Nitrate water, filtrd, mg/L as N (00631)	Ortho- phosphate, water, filtrd, mg/L as N (00671)	Partic- ulate nitro- gen, water, susps, mg/L as P (00666)	Phos- phorus, water, filtrd, mg/L as P (00665)	Phos- phorus, water, unfiltrd, mg/L as P (00602)	Total nitro- gen, water, unfiltrd, mg/L (00600)	Total nitro- gen, water, unfiltrd, mg/L (01007)	Barium, water, unfiltrd, recover -able, μg/L (01012)	Beryll- ium, water, unfiltrd, recover -able, μg/L (01027)	Chrom- ium, water, unfiltrd, recover -able, μg/L (01034)	
Dec 02...	.48	.064	1.36	.050	.04	.061	.091	1.8	1.9	--	--	--	--
Feb 17...	.41	.082	2.09	.025	.07	.029	.059	2.5	2.6	118	<.02	.15	E.32
May 12...	.48	.056	1.98	.043	.06	.058	.103	2.5	2.5	--	--	--	--
Aug 19...	.52	.011	1.99	.092	.17	.113	.171	2.5	2.7	108	<.02	.14	.79

## 01393440 ELIZABETH RIVER ABOVE URSINO LAKE, AT ELIZABETH, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 4 of 5

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

Date	Mangan-												Organic carbon, susnd sedimt total, mg/L (00689)
	Copper, water, unfltrd recover -able, μg/L (01042)	Iron, water, unfltrd recover -able, μg/L (01045)	Lead, water, unfltrd recover -able, μg/L (01051)	ese, water, unfltrd recover -able, μg/L (01055)	Mercury water, unfltrd recover -able, μg/L (71900)	Nickel, water, unfltrd recover -able, μg/L (01067)	Silver, water, unfltrd recover -able, μg/L (01077)	Zinc, water, unfltrd recover -able, μg/L (01092)	Arsenic water, filtrd, unfltrd recover -able, μg/L (01000)	Arsenic water, unfltrd recover -able, μg/L (01002)	Boron, water, unfltrd recover -able, μg/L (01022)	Selen- ium, water, unfltrd recover -able, μg/L (01147)	
Dec 02...	--	--	--	--	--	--	--	--	--	--	--	--	.48
Feb 17...	4.2	276	.62	182	<.010	1.8	E.05	14.5	.65	.57	70	.63	.52
May 12...	--	--	--	--	--	--	--	--	--	--	--	--	.49
Aug 19...	7.7	270	5.34	58.2	<.010	2.4	.06	17.9	1.0	2.1	88	.80	.93

**WATER-QUALITY  
DATA  
WATER YEAR  
OCTOBER 2008 TO  
SEPTEMBER 2009**

Part 5 of 5

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

Date	Organic carbon, water, filtrd, mg/L (00681)
Dec 02...	4.1
Feb 17...	2.5
May 12...	3.7
Aug 19...	7.2

## 01393440 ELIZABETH RIVER ABOVE URSINO LAKE, AT ELIZABETH, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 1 of 7

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

Date	1-Naph-thol, water, 0.7µ GF	ethyl-aniline water, 0.7µ GF	2,6-Di-ethyl-aniline water, 0.7µ GF	2-Chloro-diethyl water, 0.7µ GF	CIAT, water, 0.7µ GF	2-Ethyl-6-methyl-chloro-aniline water, 0.7µ GF	3,4-Di-chloro-aniline water, 0.7µ GF	3,5-Di-chloro-aniline water, 0.7µ GF	4-Chloro-phenol, water, 0.7µ GF	Aceto-chlor, water, 0.7µ GF	Ala-chlor, water, 0.7µ GF	alpha-chlor, water, 0.7µ GF	Endo-sulfan, water, 0.7µ GF	Atra-zine, water, 0.7µ GF	Azin-phos-methyl oxon, water, 0.7µ GF
	µg/L (49295)	µg/L (82660)	µg/L (61618)	µg/L (04040)	µg/L (61620)	µg/L (61625)	µg/L (61627)	µg/L (61633)	µg/L (49260)	µg/L (46342)	µg/L (34362)	µg/L (39632)	µg/L (61635)		
May 12...	<.04	<.006	<.010	E.010	<.010	E.010	<.004	<.005	<.010	<.008	<.006	.014	<.04		

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 2 of 7

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

Date	Azin-phos-methyl, water, 0.7µ GF	Ben-flur-alin, water, 0.7µ GF	Car-baryl, water, 0.7µ GF	Carbo-furan, water, 0.7µ GF	Chlor-pyrifos oxon, water, 0.7µ GF	Chlor-pyrifos water, 0.7µ GF	Chlor-pyrifos water, 0.7µ GF	cis-Per-methrin water, 0.7µ GF	cis-Propi-conazole, water, 0.7µ GF	Cyana-zine, water, 0.7µ GF	Cyflu-thrin, water, 0.7µ GF	Cyper-methrin, water, 0.7µ GF	DCPA, water, 0.7µ GF	Desulf-inyl-fipro-nil, water, 0.7µ GF	
	µg/L (82686)	µg/L (82673)	µg/L (82680)	µg/L (82674)	µg/L (61636)	µg/L (38933)	µg/L (82687)	µg/L (79846)	µg/L (04041)	µg/L (61585)	µg/L (61586)	µg/L (82682)	µg/L (62169)		
May 12...	<.120	<.014	<.200	<.060	<.05	<.010	<.014	E.003	<.040	<.016	<.020	<.006	E.005		

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 3 of 7

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

Date	Desulf-inyl-fipro-nil, water, 0.7µ GF	Diazi-non, water, 0.7µ GF	Di-chlor-vos, water, 0.7µ GF	Dicro-tophos, water, 0.7µ GF	Diel-drin, water, 0.7µ GF	Dimeth-oate, water, 0.7µ GF	Disulf-oton, water, 0.7µ GF	Disul-foton, water, 0.7µ GF	Endo-sulfan, water, 0.7µ GF	EPTC, water, 0.7µ GF	Ethion-monoxon water, 0.7µ GF	Ethion, water, 0.7µ GF	Etho-prop, water, 0.7µ GF		
	µg/L (62170)	µg/L (39572)	µg/L (38775)	µg/L (38454)	µg/L (39381)	µg/L (82662)	µg/L (61640)	µg/L (82677)	µg/L (61590)	µg/L (82668)	µg/L (61644)	µg/L (82346)	µg/L (82672)		
May 12...	E.006	<.005	<.02	<.08	<.009	<.006	<.01	<.04	<.022	<.002	<.02	<.012	<.016		

## 01393440 ELIZABETH RIVER ABOVE URSINO LAKE, AT ELIZABETH, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 4 of 7

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

Date	Fenami-													
	Fenami-phos	sulfone	Fenami-phos	water, filtd,	Fipro-nil	water, filtd,	Fipro-nil	water, filtd,	Fonofos	Hexazinone, water, filtd,	Iprodione, water, filtd,	Isofen-phos, water, filtd,	Lambda-Cyhalothrin, water, filtd,	Mala-oxon, water, filtd,
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	(04095)	(04025)	(61593)	(61594)	(61595)	(61652)	(39532)
May 12...	<.053	<.08	<.03	E.005	E.009	E.027	<.010	<.010	<.014	<.006	<.010	<.080	<.020	

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 5 of 7

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

Date	Methyl												
	Meta-laxyl, water, filtd,	Methid-athion, water, filtd,	Methyl para-oxon, water, filtd,	Methyl para-thion, water, filtd,	Metola-chlor, water, filtd,	Metri-buzin, water, filtd,	Moli-nate, water, filtd,	Myclo-butanol, water, filtd,	Oxy-fluor-fen, water, filtd,	Pendi-meth-alin, water, filtd,	Phorate, oxon, water, filtd,	Phorate, oxon, water, filtd,	Phosmet
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
May 12...	.007	<.006	<.01	<.008	E.009	<.016	<.002	<.010	<.006	<.012	<.03	<.020	<.05

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 6 of 7

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

Date	Ter-												
	Phosmet water, filtd,	Promo-ton, water, filtd,	Promo-tryn, water, filtd,	Propanil, water, filtd,	Propar-gite, water, filtd,	Propyzamide, water, filtd,	Sima-zine, water, filtd,	Tebu-thiuron, water, filtd,	Teflu-thrin, water, filtd,	Terbufos, oxon sulfone, water, filtd,	Terbu-fos, water, filtd,	Terbutyl-azine, water, filtd,	Thiocarb
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
May 12...	<.200	.02	<.006	<.014	<.02	<.004	E.008	<.02	<.010	<.04	<.02	<.01	<.016

**01393440 ELIZABETH RIVER ABOVE URSINO LAKE, AT ELIZABETH, NJ—Continued****WATER-QUALITY DATA  
WATER YEAR OCTOBER 2008 TO  
SEPTEMBER 2009**

Part 7 of 7

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

	trans-	Tri-
Date	Propi-	flur-
	con-a-	alin,
	zole,	water,
	water,	filtrd
	filtrd,	0.7 $\mu$ GF
	$\mu$ g/L	$\mu$ g/L
	(79847)	(61610)
		(82661)

  

May			
12...	E.01	<.035	E.005