

**EDEN NORTH CAROLINA COAL ASH SPILL  
SURFACE WATER RESULTS**

The data below represents surface water samples that were collected on Feb 11, 2014 by EPA SESD (Team 2). Water sample measurements are in milligrams per liter (mg/L) and/or micrograms per liter (µg/L) for these samples. The data is being compared to EPA ecological risk screening levels (ERSLs) to protect aquatic life in the surface water of the Dan River. Specific qualifiers and footnotes are listed below the summary table. These samples were collected at various locations along the river (refer to map for generalized locations). The detected concentrations in surface water are all below the EPA ERSLs with the exception of lead. When chemical concentrations exceed the screening values it doesn't mean there will be adverse health or ecological effects, but recommends further investigation may be needed.

Analyte	Ecological Screening Standard for Surface Water Samples <sup>1</sup>		Danville Raw Water, collected from the river		South Boston Raw Water, collected from the river	
<b>Sample Information</b>						
Sample ID	-	-	DVR02		SBR02	
Date	-	-	02/11/2014		02/11/2014	
Time	-	-	1320		1140	
Status	-	-	Validation Complete		Validation Complete	
Media	-	-	Surface Water		Surface Water	
<b>Volatile Organics</b>						
(m- and/or p-)Xylene	-	-	1U	µg/L	1U	µg/L
1,1,1,2-Tetrachloroethane	-	-	0.5U	µg/L	0.5U	µg/L
1,1,1-Trichloroethane	-	-	2U	µg/L	2U	µg/L
1,1,2,2-Tetrachloroethane	-	-	0.5U	µg/L	0.5U	µg/L
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	-	-	0.5U	µg/L	0.5U	µg/L
1,1,2-Trichloroethane	-	-	2U	µg/L	2U	µg/L
1,1-Dichloroethane	-	-	0.5U	µg/L	0.5U	µg/L
1,1-Dichloroethene (1,1-Dichloroethylene)	-	-	0.5U	µg/L	0.5U	µg/L
1,1-Dichloropropene	-	-	0.5U	µg/L	0.5U	µg/L
1,2,3-Trichlorobenzene	-	-	0.5U	µg/L	0.5U	µg/L
1,2,3-Trichloropropane	-	-	2U	µg/L	2U	µg/L
1,2,4-Trichlorobenzene	-	-	0.5U	µg/L	0.5U	µg/L
1,2,4-Trimethylbenzene	-	-	0.5U	µg/L	0.5U	µg/L
1,2-Dibromo-3-Chloropropane (DBCP)	-	-	4U	µg/L	4U	µg/L
1,2-Dibromoethane (EDB)	-	-	2U	µg/L	2U	µg/L
1,2-Dichlorobenzene	-	-	0.5U	µg/L	0.5U	µg/L
1,2-Dichloroethane	-	-	0.5U	µg/L	0.5U	µg/L
1,2-Dichloropropane	-	-	0.5U	µg/L	0.5U	µg/L
1,3,5-Trimethylbenzene	-	-	0.5U	µg/L	0.5U	µg/L
1,3-Dichlorobenzene	-	-	0.5U	µg/L	0.5U	µg/L
1,3-Dichloropropane	-	-	0.5U	µg/L	0.5U	µg/L
1,4-Dichlorobenzene	-	-	0.5U	µg/L	0.5U	µg/L
2,2-Dichloropropane	-	-	2U	µg/L	2U	µg/L
Acetone	-	-	4U	µg/L	4U	µg/L
Benzene	-	-	0.5U	µg/L	0.5U	µg/L
Bromobenzene	-	-	0.5U	µg/L	0.5U	µg/L
Bromochloromethane	-	-	0.5U	µg/L	0.5U	µg/L
Bromodichloromethane	-	-	0.5U	µg/L	0.5U	µg/L
Bromoform	-	-	4U	µg/L	4U	µg/L
Bromomethane	-	-	2U	µg/L	2U	µg/L
Carbon disulfide	-	-	2U	µg/L	2U	µg/L
Carbon Tetrachloride	-	-	2U	µg/L	2U	µg/L
Chlorobenzene	-	-	0.5U	µg/L	0.5U	µg/L
Chloroethane	-	-	2U	µg/L	2U	µg/L
Chloroform	-	-	0.5U	µg/L	0.5U	µg/L
Chloromethane	-	-	0.5U	µg/L	0.5U	µg/L
cis-1,2-Dichloroethene	-	-	0.5U	µg/L	0.5U	µg/L
cis-1,3-Dichloropropene	-	-	0.5U	µg/L	0.5U	µg/L
Cyclohexane	-	-	0.5U	µg/L	0.5U	µg/L
Dibromochloromethane	-	-	2U	µg/L	2U	µg/L
Dibromomethane	-	-	0.5U	µg/L	0.5U	µg/L
Dichlorodifluoromethane (Freon 12)	-	-	2U	µg/L	2U	µg/L
Ethyl Benzene	-	-	0.5U	µg/L	0.5U	µg/L
Hexachlorobutadiene	-	-	0.5U	µg/L	0.5U	µg/L
Isopropylbenzene	-	-	0.5U	µg/L	0.5U	µg/L
Methyl Acetate	-	-	4U	µg/L	4U	µg/L
Methyl Butyl Ketone	-	-	1U	µg/L	1U	µg/L
Methyl Ethyl Ketone	-	-	4U	µg/L	4U	µg/L
Methyl Isobutyl Ketone	-	-	1U	µg/L	1U	µg/L
Methyl T-Butyl Ether (MTBE)	-	-	0.5U	µg/L	0.5U	µg/L
Methylcyclohexane	-	-	0.5U	µg/L	0.5U	µg/L
Methylene Chloride	-	-	0.5U	µg/L	0.5U	µg/L
n-Butylbenzene	-	-	0.5U	µg/L	0.5U	µg/L
n-Propylbenzene	-	-	0.5U	µg/L	0.5U	µg/L
o-Chlorotoluene	-	-	0.5U	µg/L	0.5U	µg/L
o-Xylene	-	-	0.5U	µg/L	0.5U	µg/L
p-Chlorotoluene	-	-	0.5U	µg/L	0.5U	µg/L
p-Isopropyltoluene	-	-	0.5U	µg/L	0.5U	µg/L
sec-Butylbenzene	-	-	0.5U	µg/L	0.5U	µg/L
Styrene	-	-	0.5U	µg/L	0.5U	µg/L

**EDEN NORTH CAROLINA COAL ASH SPILL  
SURFACE WATER RESULTS**

Analyte	Ecological Screening Standard for Surface Water Samples <sup>1</sup>		Danville Raw Water, collected from the river		South Boston Raw Water, collected from the river	
<b>Sample Information</b>						
Sample ID	-		DVR02		SBR02	
tert-Butylbenzene	-	-	0.5U	µg/L	0.5U	µg/L
Tetrachloroethene (Tetrachloroethylene)	-	-	0.5U	µg/L	0.5U	µg/L
Toluene	-	-	0.5U	µg/L	0.5U	µg/L
trans-1,2-Dichloroethene	-	-	0.5U	µg/L	0.5U	µg/L
trans-1,3-Dichloropropene	-	-	0.5U	µg/L	0.5U	µg/L
Trichloroethene (Trichloroethylene)	-	-	0.5U	µg/L	0.5U	µg/L
Trichlorofluoromethane (Freon 11)	-	-	0.5U	µg/L	0.5U	µg/L
Vinyl chloride	-	-	0.5U	µg/L	0.5U	µg/L
<b>Semi Volatile Organics</b>						
Acenaphthene	-	-	0.99U	µg/L	1U	µg/L
Acenaphthylene	-	-	0.99U	µg/L	1U	µg/L
Anthracene	-	-	0.99U	µg/L	1U	µg/L
Benzo(a)anthracene	-	-	0.99U	µg/L	1U	µg/L
Benzo(a)pyrene	-	-	0.2U	µg/L	0.2U	µg/L
Benzo(b)fluoranthene	-	-	0.99U	µg/L	1U	µg/L
Benzo(g,h,i)perylene	-	-	0.99U	µg/L	1U	µg/L
Benzo(k)fluoranthene	-	-	0.99U	µg/L	1U	µg/L
Benzyl butyl phthalate	-	-	0.99U	µg/L	1U	µg/L
Bis-(2-Ethylhexyl) Adipate	-	-	0.99U,J,QL-1	µg/L	1U,J,QL-1	µg/L
Bis(2-ethylhexyl) phthalate	-	-	0.99U	µg/L	1U	µg/L
Chrysene	-	-	0.99U	µg/L	1U	µg/L
Dibenz(a,h)anthracene	-	-	0.99U	µg/L	1U	µg/L
Diethyl phthalate	-	-	0.99U	µg/L	1U	µg/L
Dimethyl phthalate	-	-	0.99U	µg/L	1U	µg/L
Di-n-butylphthalate	-	-	0.99U	µg/L	1U	µg/L
Di-n-octylphthalate	-	-	0.99U	µg/L	1U	µg/L
Fluoranthene	-	-	0.99U	µg/L	1U	µg/L
Fluorene	-	-	0.99U	µg/L	1U	µg/L
Hexachlorobenzene (HCB)	-	-	0.99U,J,QL-1	µg/L	1U,J,QL-1	µg/L
Indeno (1,2,3-cd) pyrene	-	-	0.99U	µg/L	1U	µg/L
Naphthalene	-	-	0.99U	µg/L	1U	µg/L
Phenanthrene	-	-	0.99U	µg/L	1U	µg/L
Pyrene	-	-	0.99U	µg/L	1U	µg/L
<b>Total Metals</b>						
Aluminum	2,000	µg/L	450	µg/L	770	µg/L
Antimony	5.6	µg/L	1U	µg/L	1U	µg/L
Arsenic	10	µg/L	1U	µg/L	1U	µg/L
Barium	220	µg/L	26	µg/L	29	µg/L
Beryllium	0.66	µg/L	0.5U	µg/L	0.5U	µg/L
Boron	360	µg/L	170	µg/L	130	µg/L
Cadmium	2	µg/L	0.5U	µg/L	0.5U	µg/L
Calcium	-	-	7,100	µg/L	7,200	µg/L
Chromium	29	µg/L	1.1U,J	µg/L	1.1J,Q-2	µg/L
Cobalt	24	µg/L	5U	µg/L	5U	µg/L
Copper	3	µg/L	1.3	µg/L	1.9	µg/L
Iron	2,300	µg/L	690	µg/L	1,100	µg/L
Lead	0.6	µg/L	0.48	µg/L	0.72	µg/L
Magnesium	-	-	2,600	µg/L	2,800	µg/L
Manganese	200	µg/L	20	µg/L	35	µg/L
Mercury	0.012	µg/L	0.1U	µg/L	0.1U	µg/L
Molybdenum	-	-	10U	µg/L	10U	µg/L
Nickel	17	µg/L	10U	µg/L	10U	µg/L
Potassium	53,000	µg/L	1,400	µg/L	1,600	µg/L
Selenium	5	µg/L	2U	µg/L	2U	µg/L
Silver	0.06	µg/L	0.013U,J	µg/L	0.013U,J	µg/L
Sodium	680,000	µg/L	4,900	µg/L	6,600	µg/L
Strontium	1,500	µg/L	48	µg/L	78	µg/L
Thallium	0.24	µg/L	0.2U	µg/L	0.2U	µg/L
Tin	73	µg/L	15U	µg/L	15U	µg/L
Titanium	-	-	22	µg/L	37	µg/L
Vanadium	27	µg/L	5U	µg/L	5U	µg/L
Yttrium	-	-	3U	µg/L	3U	µg/L
Zinc	39	µg/L	10U	µg/L	10U	µg/L

**EDED NORTH CAROLINA COAL ASH SPILL  
SURFACE WATER RESULTS**

Analyte	Ecological Screening Standard for Surface Water Samples <sup>1</sup>		Danville Raw Water, collected from the river		South Boston Raw Water, collected from the river	
<b>Sample Information</b>						
Sample ID	-		DVR02		SBR02	
<b>Classical/Nutrient Analyses</b>						
Cyanide (total)	5.2	µg/L	15U	µg/L	15U	µg/L
Nitrate as N	0.31	mg/L	0.33J,H-1	mg/L	0.37J,H-1	mg/L
Nitrate/Nitrite as N	-	-	0.33	mg/L	0.37	mg/L
Nitrite as N	10	mg/L	0.05U,J,H-1	mg/L	0.05U,J,H-1	mg/L
Total Dissolved Solids	-	-	74J,QR-1	mg/L	81J,QR-1	mg/L
Total Organic Carbon	-	-	1.4	mg/L	1.5	mg/L
Total Suspended Solids	-	-	6.5	mg/L	14	mg/L

Notes

<sup>1</sup> Value obtained from the GL Tier 2 Values; National Recommended Water Quality Criteria; Suter and Tsao (1996); Reference condition for EcoRegion XI (25 percentile); NCDENR State Standards for surface water  
 EPA U.S. Environmental Protection Agency  
 µg/L micrograms per liter  
 mg/L milligrams per liter

**EDEN NORTH CAROLINA COAL ASH SPILL  
SURFACE WATER RESULTS**

The data below represents surface water samples that were collected on Feb 11, 2014 by EPA SEDS (Team 2). Water sample measurements are in milligrams per liter (mg/L) and/or micrograms per liter (µg/L) for these samples. The data is being compared to EPA ecological risk screening levels (ERSLs) to protect aquatic life in the surface water of the Dan River. Specific qualifiers and footnotes are listed below the summary table. These samples were collected at various locations along the river (refer to map for generalized locations). The detected concentrations in surface water are all below the EPA ERSLs with the exception of lead. When chemical concentrations exceed the screening values it doesn't mean there will be adverse health or ecological effects, but recommends further investigation may be needed.

Analyte	Ecological Screening Standard for Surface Water Samples <sup>1</sup>		Approximately 100 yards upstream of VA Hwy 86 Bridge		Approximately 100 yards upstream of VA Hwy 86 Bridge		Approximately 100 yards upstream of island adjacent to Dan Daniel Memorial Park		Approximately 100 yards upstream of island adjacent to Dan Daniel Memorial Park	
<b>Sample Information</b>										
Sample ID	-		DR26A-0214SW		DR26B-0214SW		DR27A-0214SW		DR27B-0214SW	
Date	-		02/11/2014		02/11/2014		02/11/2014		02/11/2014	
Time	-		1000		1010		1230		1240	
Status	-		Validation Complete		Validation Complete		Validation Complete		Validation Complete	
Media	-		Surface Water		Sediment-Water Interface		Surface Water		Sediment-Water Interface	
Approximate Depth in Feet (bws)	-		-		-		2		3.5	
<b>Total Metals</b>										
Aluminum	2,000	µg/L	500	µg/L	470	µg/L	500	µg/L	560	µg/L
Antimony	5.6	µg/L	1U	µg/L	1U	µg/L	1U	µg/L	1U	µg/L
Arsenic	10	µg/L	1U	µg/L	1U	µg/L	1U	µg/L	1.3U,B-2	µg/L
Barium	220	µg/L	27	µg/L	26	µg/L	27	µg/L	29	µg/L
Beryllium	0.66	µg/L	0.5U	µg/L	0.5U	µg/L	0.5U	µg/L	0.5U	µg/L
Boron	360	µg/L	150	µg/L	150	µg/L	150	µg/L	150	µg/L
Cadmium	2	µg/L	0.5U	µg/L	0.5U	µg/L	0.5U	µg/L	0.5U	µg/L
Calcium	-	-	7,000	µg/L	6,900	µg/L	7,100	µg/L	7,100	µg/L
Chromium	29	µg/L	1.1U,J	µg/L	1.1U,J	µg/L	1.1U,J	µg/L	1.1U,J	µg/L
Cobalt	24	µg/L	5U	µg/L	5U	µg/L	5U	µg/L	5U	µg/L
Copper	3	µg/L	1.4	µg/L	1.3	µg/L	1.4	µg/L	1.7	µg/L
Iron	2,300	µg/L	730	µg/L	700	µg/L	740	µg/L	810	µg/L
Lead	0.6	µg/L	0.52	µg/L	0.48	µg/L	0.59	µg/L	0.63	µg/L
Magnesium	-	-	2,600	µg/L	2,600	µg/L	2,600	µg/L	2,600	µg/L
Manganese	200	µg/L	22	µg/L	22	µg/L	22	µg/L	27	µg/L
Mercury	0.012	µg/L	0.1U	µg/L	0.1U	µg/L	0.1U	µg/L	0.1U	µg/L
Molybdenum	-	-	10U	µg/L	10U	µg/L	10U	µg/L	10U	µg/L
Nickel	17	µg/L	10U	µg/L	10U	µg/L	10U	µg/L	10U	µg/L
Potassium	53,000	µg/L	1,500	µg/L	1,400	µg/L	1,400	µg/L	1,400	µg/L
Selenium	5	µg/L	2U	µg/L	2U	µg/L	2U	µg/L	2U	µg/L
Silver	0.06	µg/L	0.013U,J	µg/L	0.013U,J	µg/L	0.013U,J	µg/L	0.013U,J	µg/L
Sodium	680,000	µg/L	4,800	µg/L	4,700	µg/L	4,800	µg/L	4,800	µg/L
Strontium	1,500	µg/L	48	µg/L	47	µg/L	49	µg/L	50	µg/L
Thallium	0.24	µg/L	0.2U	µg/L	0.2U	µg/L	0.2U	µg/L	0.2U	µg/L
Tin	73	µg/L	15U	µg/L	15U	µg/L	15U	µg/L	15U	µg/L
Titanium	-	-	26	µg/L	24	µg/L	25	µg/L	31	µg/L
Vanadium	27	µg/L	5U	µg/L	5U	µg/L	5U	µg/L	5U	µg/L
Yttrium	-	-	3U	µg/L	3U	µg/L	3U	µg/L	3U	µg/L
Zinc	39	µg/L	10U	µg/L	10U	µg/L	10U	µg/L	10U	µg/L
<b>Classical/Nutrient Analyses</b>										
Total Dissolved Solids	-	-	74J,QR-1	mg/L	73J,QR-1	mg/L	74J,QR-1	mg/L	75J,QR-1	mg/L
Total Suspended Solids	-	-	8.8	mg/L	8.6	mg/L	9.4	mg/L	8.9	mg/L

Notes

- <sup>1</sup> Value obtained from the GL Tier 2 Values; National Recommended Water Quality Criteria; Suter and Tsao (1996); Reference condition for EcoRegion XI (25 percentile); NCDENR State Standards for surface water
- EPA U.S. Environmental Protection Agency  
µg/L micrograms per liter  
mg/L milligrams per liter

**EDEN NORTH CAROLINA COAL ASH SPILL  
SURFACE WATER RESULTS**

Analyte	Ecological Screening Standard for Surface Water Samples <sup>1</sup>		Approximately 1.3 mile downstream of Danville Expressway bridge		Approximately 1.3 mile downstream of Danville Expressway bridge		Approximately 6.3 mile downstream of Danville Expressway bridge		Approximately 6.3 mile downstream of Danville Expressway bridge	
<b>Sample Information</b>										
Sample ID	-		DR28A-0214SW		DR28B-0214SW		DR29A-0214SW		DR29B-0214SW	
Date	-		02/11/2014		02/11/2014		02/11/2014		02/11/2014	
Time	-		1155		1205		1345		1350	
Status	-		Validation Complete		Validation Complete		Validation Complete		Validation Complete	
Media	-		Surface Water		Sediment-Water Interface		Surface Water		Sediment-Water Interface	
Approximate Depth in Feet (bws)	-		-		-		-		-	
<b>Total Metals</b>										
Aluminum	2,000	µg/L	570	µg/L	540	µg/L	610	µg/L	620	µg/L
Antimony	5.6	µg/L	1U	µg/L	1U	µg/L	1U	µg/L	1U	µg/L
Arsenic	10	µg/L	1U	µg/L	1.1U,B-2	µg/L	1.3U,B-2	µg/L	1.1U,B-2	µg/L
Barium	220	µg/L	28	µg/L	28	µg/L	29	µg/L	31	µg/L
Beryllium	0.66	µg/L	0.5U	µg/L	0.5U	µg/L	0.5U	µg/L	0.5U	µg/L
Boron	360	µg/L	150	µg/L	150	µg/L	150	µg/L	150	µg/L
Cadmium	2	µg/L	0.5U	µg/L	0.5U	µg/L	0.5U	µg/L	0.5U	µg/L
Calcium	-	-	7,100	µg/L	7,100	µg/L	7,200	µg/L	7,400	µg/L
Chromium	29	µg/L	1.1U,J	µg/L	1.1U,J	µg/L	1.1U,J	µg/L	1.1U,J	µg/L
Cobalt	24	µg/L	5U	µg/L	5U	µg/L	5U	µg/L	5U	µg/L
Copper	3	µg/L	1.8	µg/L	1.6	µg/L	2.1	µg/L	1.9	µg/L
Iron	2,300	µg/L	780	µg/L	790	µg/L	900	µg/L	940	µg/L
Lead	0.6	µg/L	0.61	µg/L	0.59	µg/L	0.93	µg/L	0.7	µg/L
Magnesium	-	-	2,600	µg/L	2,600	µg/L	2,700	µg/L	2,700	µg/L
Manganese	200	µg/L	25	µg/L	26	µg/L	33	µg/L	34	µg/L
Mercury	0.012	µg/L	0.1U	µg/L	0.1U	µg/L	0.1U,J,QC-5	µg/L	0.1U,J,QC-5	µg/L
Molybdenum	-	-	10U	µg/L	10U	µg/L	10U	µg/L	10U	µg/L
Nickel	17	µg/L	10U	µg/L	10U	µg/L	10U	µg/L	10U	µg/L
Potassium	53,000	µg/L	1,500	µg/L	1,500	µg/L	1,600	µg/L	1,600	µg/L
Selenium	5	µg/L	2U	µg/L	2U	µg/L	2U	µg/L	2U	µg/L
Silver	0.06	µg/L	0.013U,J	µg/L	0.013U,J	µg/L	0.013U,J	µg/L	0.013U,J	µg/L
Sodium	680,000	µg/L	5,100	µg/L	5,000	µg/L	6,000	µg/L	6,100	µg/L
Strontium	1,500	µg/L	50	µg/L	50	µg/L	60	µg/L	61	µg/L
Thallium	0.24	µg/L	0.2U	µg/L	0.2U	µg/L	0.2U	µg/L	0.2U	µg/L
Tin	73	µg/L	15U	µg/L	15U	µg/L	15U	µg/L	15U	µg/L
Titanium	-	-	29	µg/L	28	µg/L	32	µg/L	33	µg/L
Vanadium	27	µg/L	5U	µg/L	5U	µg/L	5U	µg/L	5U	µg/L
Yttrium	-	-	3U	µg/L	3U	µg/L	3U	µg/L	3U	µg/L
Zinc	39	µg/L	10U	µg/L	10U	µg/L	10U	µg/L	10U	µg/L
<b>Classical/Nutrient Analyses</b>										
Total Dissolved Solids	-	-	71J,QR-1	mg/L	72J,QR-1	mg/L	75J,QR-1	mg/L	53J,QR-1	mg/L
Total Suspended Solids	-	-	10	mg/L	11	mg/L	14	mg/L	14	mg/L

Notes

<sup>1</sup> Value obtained from the GL Tier 2 Values; National Recommended Water Quality Criteria; Suter and Tsao (1996); Reference condition for EcoRegion XI (25 percentile); NCDENR State Standards for surface water

EPA U.S. Environmental Protection Agency  
µg/L micrograms per liter  
mg/L milligrams per liter

**EDEN NORTH CAROLINA COAL ASH SPILL  
SURFACE WATER RESULTS**

Analyte	Ecological Screening Standard for Surface Water Samples <sup>1</sup>		Approximately 0.1 mile upstream of Hwy 62 Bridge		Approximately 0.1 mile upstream of Hwy 62 Bridge		Just upstream of US 58 Bridge (S. Boston Hwy)		Just upstream of US 58 Bridge (S. Boston Hwy)	
<b>Sample Information</b>										
Sample ID	-		DR30A-0214SW		DR30B-0214SW		DR31A-0214SW		DR31B-0214SW	
Date	-		02/11/2014		02/11/2014		02/11/2014		02/11/2014	
Time	-		1430		1445		1610		1620	
Status	-		Validation Complete		Validation Complete		Validation Complete		Validation Complete	
Media	-		Surface Water		Sediment-Water Interface		Surface Water		Sediment-Water Interface	
Approximate Depth in Feet (bws)	-		2		4.5		-		-	
<b>Total Metals</b>										
Aluminum	2,000	µg/L	650	µg/L	710	µg/L	650	µg/L	650	µg/L
Antimony	5.6	µg/L	1U	µg/L	1U	µg/L	1U	µg/L	1U	µg/L
Arsenic	10	µg/L	1.2U,B-2	µg/L	1U	µg/L	1U	µg/L	1.1U,B-2	µg/L
Barium	220	µg/L	30	µg/L	37	µg/L	29	µg/L	29	µg/L
Beryllium	0.66	µg/L	0.5U	µg/L	0.5U	µg/L	0.5U	µg/L	0.5U	µg/L
Boron	360	µg/L	140	µg/L	140	µg/L	140	µg/L	140	µg/L
Cadmium	2	µg/L	0.5U	µg/L	0.5U	µg/L	0.5U	µg/L	0.5U	µg/L
Calcium	-	-	7,400	µg/L	7,400	µg/L	7,300	µg/L	7,400	µg/L
Chromium	29	µg/L	1.1J,Q-2	µg/L	1.4J,Q-2	µg/L	1.1J,Q-2	µg/L	1.1J,Q-2	µg/L
Cobalt	24	µg/L	5U	µg/L	5U	µg/L	5U	µg/L	5U	µg/L
Copper	3	µg/L	1.9	µg/L	1.9	µg/L	1.6	µg/L	1.6	µg/L
Iron	2,300	µg/L	960	µg/L	1,000	µg/L	1,000	µg/L	1,000	µg/L
Lead	0.6	µg/L	0.77	µg/L	1.2	µg/L	0.68	µg/L	0.67	µg/L
Magnesium	-	-	2,700	µg/L	2,700	µg/L	2,800	µg/L	2,800	µg/L
Manganese	200	µg/L	33	µg/L	66	µg/L	29	µg/L	31	µg/L
Mercury	0.012	µg/L	0.1U,J,QC-5	µg/L	0.1U,J,QC-5	µg/L	0.1U,J,QC-5	µg/L	0.1U,J,QC-5	µg/L
Molybdenum	-	-	10U	µg/L	10U	µg/L	10U	µg/L	10U	µg/L
Nickel	17	µg/L	10U	µg/L	10U	µg/L	10U	µg/L	10U	µg/L
Potassium	53,000	µg/L	1,600	µg/L	1,600	µg/L	1,600	µg/L	1,600	µg/L
Selenium	5	µg/L	2U	µg/L	2U	µg/L	2U	µg/L	2U	µg/L
Silver	0.06	µg/L	0.013U,J	µg/L	0.013U,J	µg/L	0.013U,J	µg/L	0.013U,J	µg/L
Sodium	680,000	µg/L	6,100	µg/L	6,000	µg/L	6,300	µg/L	6,300	µg/L
Strontium	1,500	µg/L	63	µg/L	63	µg/L	68	µg/L	69	µg/L
Thallium	0.24	µg/L	0.2U	µg/L	0.2U	µg/L	0.2U	µg/L	0.2U	µg/L
Tin	73	µg/L	15U	µg/L	15U	µg/L	15U	µg/L	15U	µg/L
Titanium	-	-	34	µg/L	36	µg/L	31	µg/L	31	µg/L
Vanadium	27	µg/L	5U	µg/L	5U	µg/L	5U	µg/L	5U	µg/L
Yttrium	-	-	3U	µg/L	3U	µg/L	3U	µg/L	3U	µg/L
Zinc	39	µg/L	10U	µg/L	10U	µg/L	10U	µg/L	10U	µg/L
<b>Classical/Nutrient Analyses</b>										
Total Dissolved Solids	-	-	74J,QR-1	mg/L	52J,QR-1	mg/L	78J,QR-1	mg/L	78J,QR-1	mg/L
Total Suspended Solids	-	-	12	mg/L	12	mg/L	10	mg/L	11	mg/L

Notes

<sup>1</sup> Value obtained from the GL Tier 2 Values; National Recommended Water Quality Criteria; Suter and Tsao (1996); Reference condition for EcoRegion XI (25 percentile); NCDENR State Standards for surface water

EPA U.S. Environmental Protection Agency  
µg/L micrograms per liter  
mg/L milligrams per liter

**EDEN NORTH CAROLINA COAL ASH SPILL  
SURFACE WATER RESULTS**

Analyte	Ecological Screening Standard for Surface Water Samples <sup>1</sup>		Approximately 100 yds upstream of 658 (Melon Rd) Bridge		Approximately 100 yds upstream of 658 (Melon Rd) Bridge	
<b>Sample Information</b>						
Sample ID	-		DR32A-0214SW		DR32B-0214SW	
Date	-		02/11/2014		02/11/2014	
Time	-		1720		1730	
Status	-		Validation Complete		Validation Complete	
Media	-		Surface Water		Sediment-Water Interface	
Approximate Depth in Feet (bws)	-		2		4.5	
<b>Total Metals</b>						
Aluminum	2,000	µg/L	620	µg/L	580	µg/L
Antimony	5.6	µg/L	1U	µg/L	1U	µg/L
Arsenic	10	µg/L	1.3U,B-2	µg/L	1U	µg/L
Barium	220	µg/L	28	µg/L	28	µg/L
Beryllium	0.66	µg/L	0.5U	µg/L	0.5U	µg/L
Boron	360	µg/L	130	µg/L	140	µg/L
Cadmium	2	µg/L	0.5U	µg/L	0.5U	µg/L
Calcium	-	-	7,300	µg/L	7,200	µg/L
Chromium	29	µg/L	1.1U,J	µg/L	1.1U,J	µg/L
Cobalt	24	µg/L	5U	µg/L	5U	µg/L
Copper	3	µg/L	1.6	µg/L	1.6	µg/L
Iron	2,300	µg/L	1,000	µg/L	1,000	µg/L
Lead	0.6	µg/L	0.65	µg/L	0.67	µg/L
Magnesium	-	-	2,800	µg/L	2,700	µg/L
Manganese	200	µg/L	27	µg/L	27	µg/L
Mercury	0.012	µg/L	0.1U,J,QC-5	µg/L	0.1U,J,QC-5	µg/L
Molybdenum	-	-	10U	µg/L	10U	µg/L
Nickel	17	µg/L	10U	µg/L	10U	µg/L
Potassium	53,000	µg/L	1,600	µg/L	1,600	µg/L
Selenium	5	µg/L	2U	µg/L	2U	µg/L
Silver	0.06	µg/L	0.013U,J	µg/L	0.013U,J	µg/L
Sodium	680,000	µg/L	6,300	µg/L	6,400	µg/L
Strontium	1,500	µg/L	72	µg/L	72	µg/L
Thallium	0.24	µg/L	0.2U	µg/L	0.2U	µg/L
Tin	73	µg/L	15U	µg/L	15U	µg/L
Titanium	-	-	31	µg/L	28	µg/L
Vanadium	27	µg/L	5U	µg/L	5U	µg/L
Yttrium	-	-	3U	µg/L	3U	µg/L
Zinc	39	µg/L	10U	µg/L	10U	µg/L
<b>Classical/Nutrient Analyses</b>						
Total Dissolved Solids	-	-	78J.QR-1	mg/L	78J.QR-1	mg/L
Total Suspended Solids	-	-	9.3	mg/L	11	mg/L

Notes

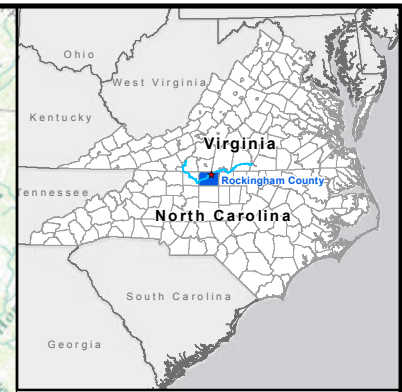
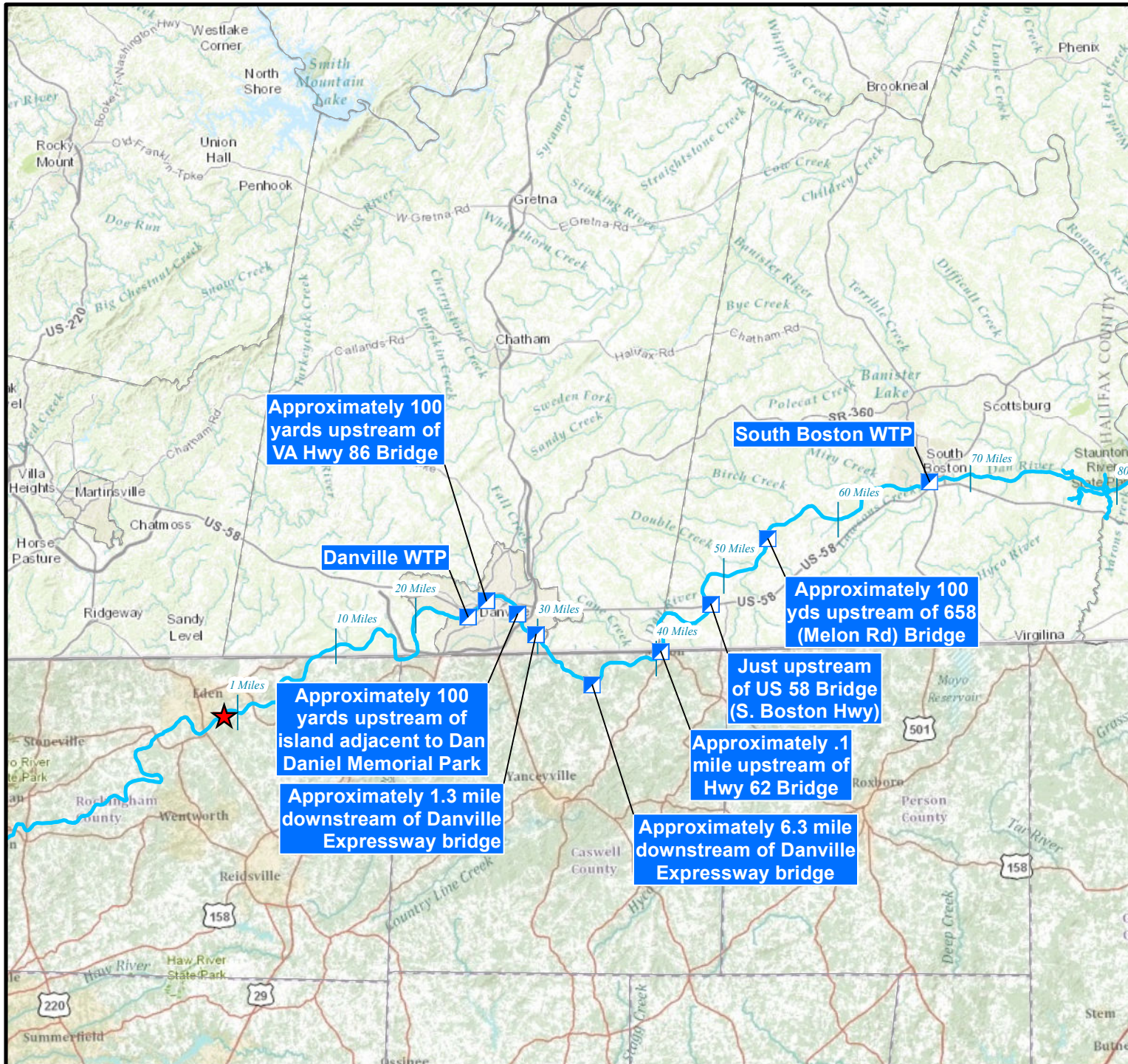
<sup>1</sup> Value obtained from the GL Tier 2 Values; National Recommended Water Quality Criteria; Suter and Tsao (1996); Reference condition for EcoRegion XI (25 percentile); NCDENR State Standards for surface water

EPA U.S. Environmental Protection Agency  
µg/L micrograms per liter  
mg/L milligrams per liter





## DATA QUALIFIER DEFINITIONS

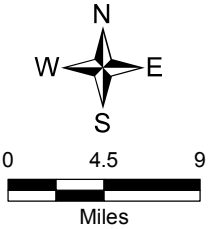
B-2	Reporting level elevated due to trace amounts of analyte present in the method blank
B-3	Level in blank does not impact data quality
B-4	Level in blank impacts MRLs
B-5	Qualitative evidence of contamination in the blank at a concentration less than the MDL
C-2	Improper sample container used
H-1	Recommended holding time exceeded
J	The identification of the analyte is acceptable; the reported value is an estimate
MRL-1	MRL verification for Potable Water matrix (Drinking Water)
MRL-2	MRL verification for Non-Potable Water matrix
MRL-3	MRL verification for Soil matrix
MRL-6	MRL verification for Waste matrix
N	There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification
NA-5	Not Analyzed. Cannot exceed TCLP regulatory levels based on Total Scan analyses
NA-9	Not Analyzed. No sample container received.
NJ	Presumptive evidence that the analyte is present; reported as a tentative identification with an estimated value
P-6	Incorrect reagent or technique used to preserve sample
Q-2	Result greater than MDL but less than MRL
QC-1	Analyte concentration low in continuing calibration verification standard
QC-2	Analyte concentration high in continuing calibration verification standard
QC-5	Calibration check standard less than method control limits
QC-6	Calibration check standard greater than method control limits
QI-1	Internal standard was outside of method control limits
QL-1	Laboratory Control Spike Recovery less than method control limits
QL-2	Laboratory Control Spike Recovery greater than method control limits
QL-3	Laboratory Control Spike Precision outside of method control limits
QM-1	Matrix Spike Recovery less than method control limits
QM-2	Matrix Spike Recovery greater than method control limits
QM-3	Matrix Spike Precision outside method control limits
QR-1	MRL verification recovery less than lower control limits
QR-2	MRL verification recovery greater than upper control limits
TIC	Tentatively Identified Compound - AN analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.
U	The analyte was not detected at or above the reporting limit
XD-2	Duplicate results less than 5X MRL
XM-1	Sample background/spike ratio higher than method evaluation criteria





**Legend**

-  River Miles Downstream from 48" Outfall
-  Surface Water Sample Location
-  Approximate Spill Location
-  Dan River



Map Source: ArcGIS Online World Map Topo, 2014

**Surface Water Sample Locations  
February 11, 2014**

