

EDEN NORTH CAROLINA COAL ASH SPILL SURFACE WATER RESULTS

NOTE: The data below represents an effluent sample that was collected on May 30, 2014 by EPA START (Team 1) sampling teams. Water sample measurements are in milligrams per liter (mg/L) and/or micrograms per liter (µg/L) for these samples. The sampling is being performed to ensure discharge is meeting the substantive requirement of applicable discharge permits. 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). 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 ¹		Danville Dredging Effluent ²	
Sample Information				
Sample ID	-		EDEN-DDE-SW-20140530	
Date	-		05/30/2014	
Time	-		12:05	
Status	-		Validation Complete	
Type	-		Surface Water	
Dissolved metals				
Aluminum	87	µg/L	--	--
Antimony	5.6	µg/L	--	--
Arsenic	10	µg/L	--	--
Barium	220	µg/L	--	--
Beryllium	0.66	µg/L	--	--
Boron	0.36	mg/L	--	--
Cadmium	0.1	µg/L	--	--
Calcium	-	-	--	--
Chromium	25	µg/L	--	--
Cobalt	3	µg/L	--	--
Copper	3	µg/L	--	--
Iron	1,000	µg/L	--	--
Lead	0.59	µg/L	--	--
Magnesium	-	-	--	--
Manganese	200	µg/L	--	--
Mercury	0.000012	mg/L	--	--
Molybdenum	800	µg/L	--	--
Nickel	17	µg/L	--	--
Potassium	53,000	µg/L	--	--
Selenium	5	µg/L	--	--
Silver	0.06	µg/L	--	--
Sodium	680,000	µg/L	--	--
Thallium	0.24	µg/L	--	--
Vanadium	27	µg/L	--	--
Zinc	39	µg/L	--	--
Total Dissolved Solids				
Total Dissolved Solids	-	-	--	--
Total Suspended Solids				
Total Suspended Solids	-	-	16	mg/L

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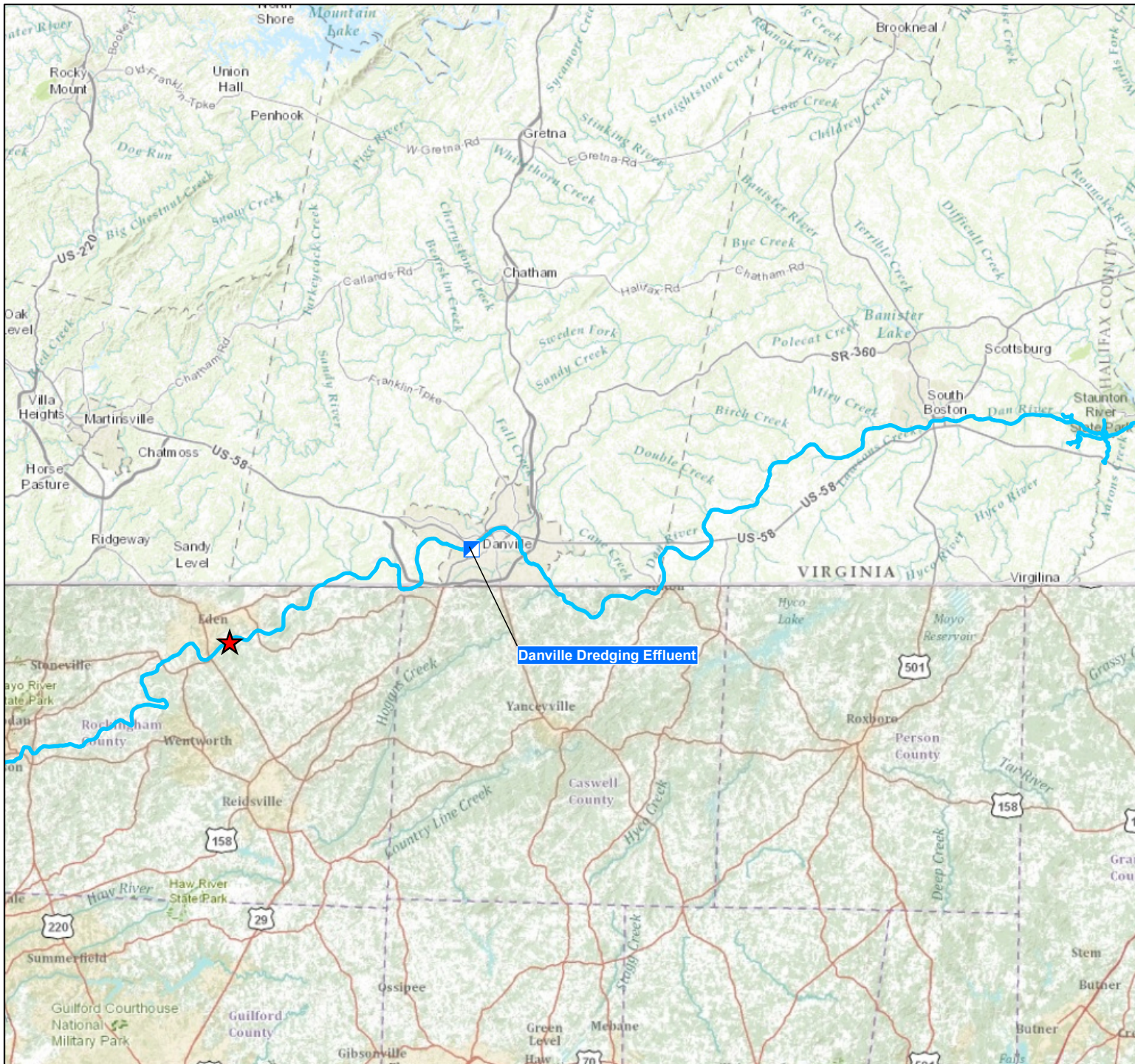
Analyte	Ecological Screening Standard for Surface Water Samples ¹		Danville Dredging Effluent ²	
Sample Information				
Sample ID	-		EDEN-DDE-SW-20140530	
Total Metals				
Aluminum	2,000	µg/L	--	--
Antimony	5.6	µg/L	--	--
Arsenic	10	µg/L	--	--
Barium	220	µg/L	--	--
Beryllium	0.66	µg/L	--	--
Boron	0.36	mg/L	--	--
Cadmium	2	µg/L	--	--
Calcium	-	-	--	--
Chromium	29	µg/L	--	--
Cobalt	24	µg/L	--	--
Copper	3	µg/L	--	--
Iron	2,300	µg/L	--	--
Lead	0.6	µg/L	--	--
Magnesium	-	-	--	--
Manganese	200	µg/L	--	--
Mercury	0.000012	mg/L	--	--
Molybdenum	-	-	--	--
Nickel	17	µg/L	--	--
Potassium	53,000	µg/L	--	--
Selenium	5	µg/L	--	--
Silver	0.06	µg/L	--	--
Sodium	680,000	µg/L	--	--
Thallium	0.24	µg/L	--	--
Vanadium	27	µg/L	--	--
Zinc	39	µg/L	--	--
Anions				
Bromide	-	-	--	--
Chloride	230	mg/L	--	--
Sulfate	-	-	--	--

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Sample Information				
Sample ID	-		EDEN-DDE-SW-20140530	
Wet Chemistry				
Alkalinity, Total (As CaCO ₃)	-	-	--	--
Hardness, Calcium/Magnesium (As CaCO ₃)	-	-	--	--
Organic Carbon, Dissolved	-	-	--	--
pH	6.5 - 9.0		SU	--

Notes

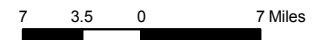
- ¹ Value obtained from the GL Tier 2 Values; National Recommended Water Quality Criteria; Suter and Tsao (1996); Reference condition for EcoRegion XI (25 percentile); NCDENR State Standards for surface water
- ² Sample analyzed for total suspended solids only
- EPA U.S. Environmental Protection Agency
- J Value is estimated
- µg/L micrograms per liter
- mg/L milligrams per liter
- SU standard units
- U Analyte was not detected at the listed reporting limit.



Legend

-  Approximate Spill Location
-  Surface Water Sample Location

Imagery Source:
ESRI, USGS Mapping Service, 2013



Eden Coal Ash Spill
Eden, North Carolina

Surface Water
Sample Locations
May 30, 2014

