

Hurricane Sandy Sampling Results: Newtown Creek

Newtown Creek, on the border of Brooklyn and Queens in New York City, is contaminated from more than 150 years of pollution from refineries, petrochemical plants, fertilizer and glue factories, sawmills, and lumber and coal yards. The site was placed on the Superfund list in September 2010.

On November 9, 2012, EPA took two samples in the Newtown Creek area. Samples were taken from the basement of a building on Eagle Street that had been flooded as well as directly from the creek.

Samples of flood water from the building basement and the creek were analyzed for bacteria and 139 different chemicals within the following categories: metals, volatile organic compounds, petroleum related compounds and semi-volatile organic compounds.

Levels of bacteria were high. While this type of bacteria becomes inactive over time, these findings reinforce the need for people to protect themselves when cleaning up flood waters that contain sewage and therefore contain bacteria. Fact sheets detailing the precautions people should take when cleaning flood waters can be found at <http://www.epa.gov/sandy/>.

The remaining four categories of pollutants were compared to health based values of drinking water quality. Chemicals that were tested were below levels of concern or not detected.

Low levels of gasoline and diesel derivatives were found, consistent with road run-off which often contains traces of fuel.

Semi-volatile organic compounds were found at very low levels or not detected. No volatile organic compounds were detected. Heavy metals were found at very low levels or not detected.

NEWTOWN CREEK SAMPLING EVENT - 11/09/12

Sampling Location:	Eagle Street Residence Basement Sump		Duplicate of Eagle Street Residence Basement Sump		Newtown Creek	
Sampling Date:	11/09/2012		11/09/2012		11/09/2012	
Units:	ug/L		ug/L		ug/L	
	Result	Qualifier	Result	Qualifier	Result	Qualifier
VOLATILE ORGANICS						
None Detected	--		--		--	
Semi-VOLATILE ORGANICS						
bis(2-Ethylhexyl)phthalate	13		12		--	
Heptacosane	--		12	JN	--	
Cholestanol	--		34	JN	--	
Unknown Cholesterol	30	JN	--		--	
Eicosane	12	JN	--		--	
Nonadecane	16	JN	14	JN	--	
Octadecane	13	JN	11	JN	--	
TPH-GRO/DRO/ORO						
TPH-GRO (C8-C10)	--		--		--	
TPH-DRO/ORO (C13-C22)	--		2200		3300	
TPH-DRO/ORO (C23-C40)	--		2400		3400	
Total TPH	--		4700		6700	
METALS						
Aluminum	1300		1200		540	
Barium	190		180		--	
Calcium	290000		290000		220000	
Chromium	5.0		--		--	
Copper	43		34		--	
Iron	1600		1400		140	
Lead	68		55			
Magnesium	57000		56000		710000	
Manganese	47		44		8.4	

METALS						
Potassium	64000		62000		370000	
Sodium	610000		610000		3000000	
Zinc	120		100		--	

Bacteria	CFU = Colony Forming Unit		
Sampling Location:	Residence	Newtown Creek	Duplicate of Newtown Creek
Total Coliform (CFU/100 ml)	310000	620000	900
E. coli (CFU/100 ml)	2200	1400	50

For spreadsheets showing full results:

<http://www.epa.gov/region02/superfund/npl/newtowncreek/sandysampling.xlsx>