November 18, 2015

Plans for maintenance work on the South Branch Park River flood control system, which runs through West Hartford, Newington, and Hartford, call for dredging Trout Brook Pond #5, located at the end of Linnard and Linbrook Streets in West Hartford. Plans also call for dewatering – drying – that sediment in an area near the pond before moving it away for proper disposal.

Tests were conducted on samples of sediment taken from the pond. We have now received those sample results and are sharing this information with you. These results show the presence of low levels of metals and Polycyclic Aromatic Hydrocarbons (PAHs), in amounts not unusual in a suburban area like West Hartford.

Given these results, however, the Department has taken additional samples from the staging and stockpile area at the end of these streets in order to compare the two results. This information will guide us in making final decisions on the dredging, stockpiling and disposal plan for the sediment from Pond #5 – and we will share that plan.

To provide additional information and perspective, following is a summary and explanation of the sampling results on the sediment. Please feel free to contact us with any questions or concerns you may have.

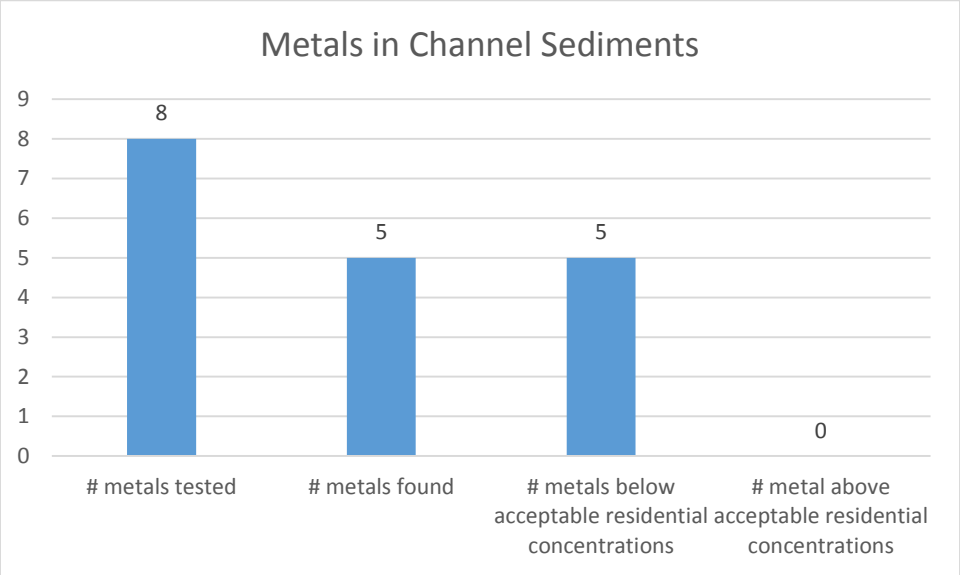
Our contact people for this project are:

Dan Biron - Project Manager	860-424-3892
Jennifer Perry - Supervisor	860-424-3802
Cheryl Chase - Director	860-424-3860
Betsey Wingfield - Bureau Chief	860-424-3791

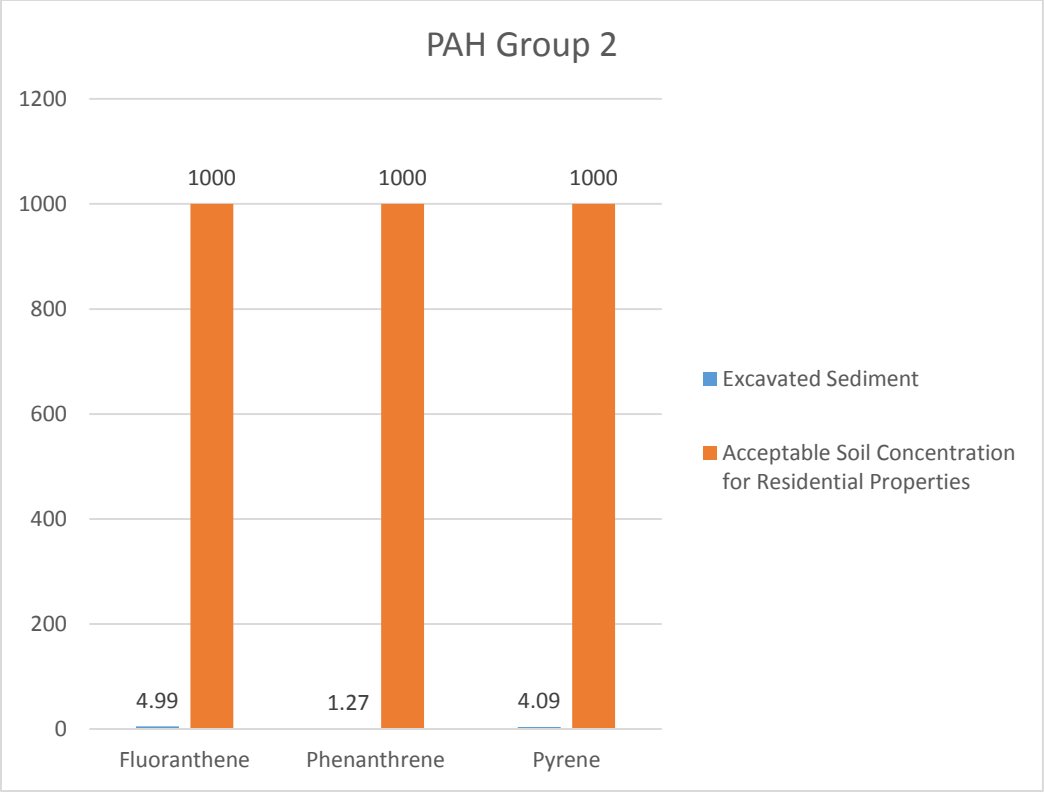
Full test results follow and are also posted at the project website – www.ct.gov/deep/sbpr

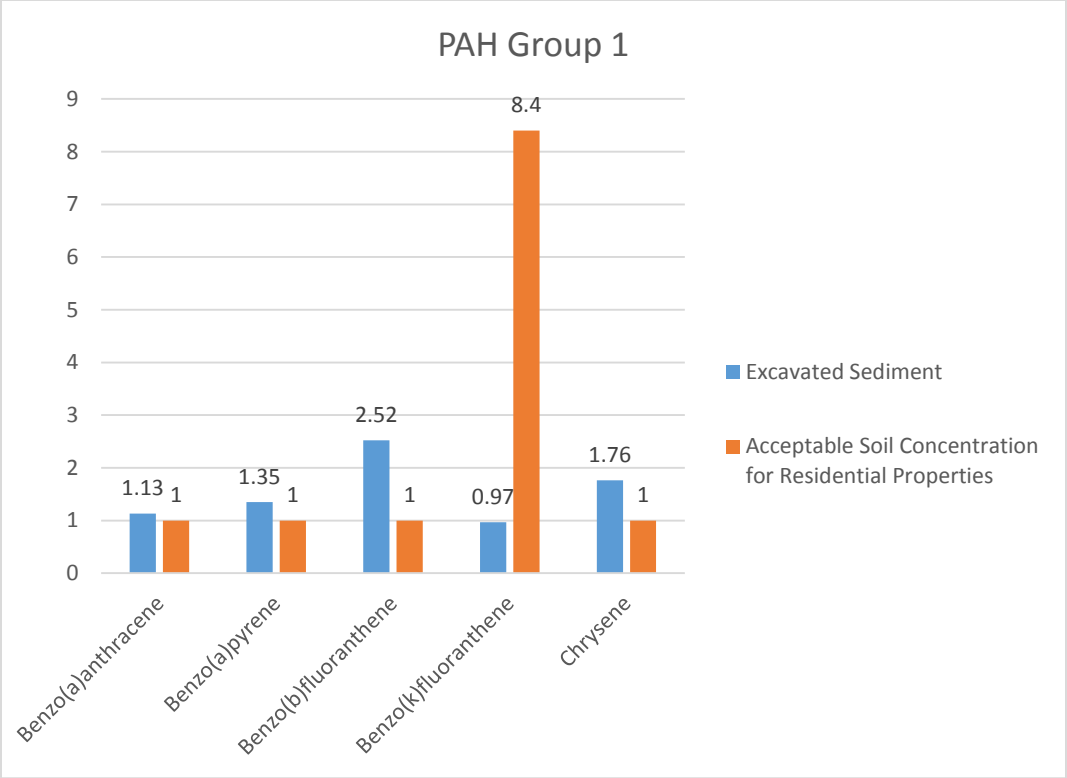
Summary and explanation of Results of Sediment Testing in Trout Brook Sediment Pond #5

- Metals are common components of soils and sediments. They can occur naturally or from manmade sources. The sediments were tested for eight types of metals. Five types of metals were found in the sediments. All were present at low levels – levels below thresholds that have been set to indicate any risk to human health on residential properties.



- Semivolatile organics are a common chemical found in the environment. The sediments were tested for 68 semivolatile organics. Only eight were detected, all of which belong to a group of semivolatile chemicals called Polycyclic Aromatic Hydrocarbons (PAHs).
- PAHs are common chemicals occurring when something burns incompletely. This incomplete combustion occurs in many places, from the cars that we drive to the heating systems in our homes, to the foods that we grill. There are both natural and manmade sources of PAHs. These chemicals are typically found in soils and sediments due to atmospheric deposition and stormwater runoff.
- Half of the PAHs (four of eight) measured in the sediments were found at concentrations below the thresholds that have been set to indicate any risk to human health on residential properties.
- The other half of the PAHs (four of eight) were detected at levels slightly above the threshold levels for residential properties. The threshold levels for concentrations of PAHs on residential properties, however, are based on the assumption that people will be directly exposed to the soils for a period of 30 years. The sediments to be dredged from Pond #5 and dried on the site behind Linnard and Linbrook Streets will be stockpiled for 30 to 60 days – not a long enough time to create risks from exposure.
- In addition, there is no risk of harm from contaminants like these in the soil or sediment if people do not come into contact with them. There will be fencing and signage designed to keep people from accessing any excavated sediments stockpiled for dewatering at the end of Linnard and Linbrook Streets.


PAH Group 2
1200
1000
800
600
400
200
0
1000
1000
1000
4.99
1.27
4.09
Fluoranthene
Phenanthrene
Pyrene
Excavated Sediment
Acceptable Soil Concentration for Residential Properties


PAH Group 1
9
8
7
6
5
4
3
2
1
0
8.4
2.52
1.76
1.13
1
1.35
1
1
0.97
1
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Chrysene
Excavated Sediment
Acceptable Soil Concentration for Residential Properties

Date Samples Received: 11/04/15

Client Name :	**WMC Consulting Engineers**	CTL Lab No. :	1115060
Report Date :	11/11/15	PO/ Job No. :	NA

RESULTS OF ANALYSIS

Mass Analysis EPA 3050B

Matrix Type :	**S**
CTL Sample No.	**16801**
Field ID :	**T.B. Pond #5**

Parameters	**RL**				
Arsenic-mg/kg	1.0	5.3			
Barium-mg/kg	5	114			
Cadmium-mg/kg	0.5	ND			
Chromium, Total-mg/kg	0.5	17.5			
Lead-mg/kg	0.5	42.2			
Mercury-mg/kg	0.02	0.07			
Selenium-mg/kg	0.5	ND			
Silver-mg/kg	0.2	ND			

Matrix Type : **S**

CTL Sample No. **16801**

Field ID : **T.B. Pond #5**

Parameters	**RL**				**Method No.**
CT ETPH-mg/kg	500	ND			GC/FID
Total PCBs-mg/kg	1	ND			8082

RL= Reporting Limit **ND** = Not Detected

Matrix Types: W = Water/Aqueous **S**= Soil/Solid **O**= Oil/Hydrocarbon

Client Name	**WMC Consulting Engineers**	Date Extracted:	11/05/15
CTL Lab No.:	1115060	Date Analyzed:	11/06/15
Job/PO No.	NA	Analyst:	KM
Report Date :	11/11/15		

EPA METHOD 8270C Modified

Date Samples Rec'd: 11/04/15

Matrix Type: **S**
CTL Sample #: **16801**

Field ID : **T.B. Pond #5**

Results of Analysis-ug/kg

Parameters	**RL**				
N-Nitrosodiphenylamine	500	ND			
Pyridine	500	ND			
Phenol	1000	ND			
Bis(2-chloroethyl) ether	500	ND			
Aniline	500	ND			
2-Chlorophenol	1000	ND			
1,3-Dichlorobenzene	500	ND			
1,4-Dichlorobenzene	500	ND			
1,2-Dichlorobenzene	500	ND			
2-Methylphenol	1000	ND			
Bis(2-chloroisopropyl)ether	500	ND			
4-Methylphenol	1000	ND			
N-Nitrosodi-n-propylamine	500	ND			
Hexachloroethane	500	ND			
Nitrobenzene	500	ND			
Isophorone	500	ND			

2-Nitrophenol	1000	ND			
2,4-Dimethylphenol	1000	ND			
Bis(2-chloroethoxy)methane	500	ND			
2,4-Dichlorophenol	1000	ND			
4-Chloro-3-methylphenol	1000	ND			
2,4,6-Trichlorophenol	1000	ND			
2,4,5-Trichlorophenol	1000	ND			
2,4-Dinitrophenol	1000	ND			
4-Nitrophenol	1000	ND			
2-Methyl-46-dinitrophenol	1000	ND			
1,2,4-Trichlorobenzene	500	ND			
Naphthalene	500	ND			
4-Chloroaniline	500	ND			
2,6-Dinitrotoluene	500	ND			
Hexachlorobutadiene	500	ND			
2-Methylnaphthalene	500	ND			
Hexachlorocyclopentadiene	1000	ND			
2-Chloronaphthalene	500	ND			
2-Nitroaniline	500	ND			
Dimethyl phthalate	500	ND			

RL= Reporting Limit **ND**= Not Detected

Matrix Type: W= Water/Aqueous **S**=Soil/Solid O=Oil/Hydrocarbon

Client Name	**WMC Consulting Engineers**	Date Extracted:	11/05/15
CTL Lab No.:	1115060	Date Analyzed:	11/06/15
Job/PO No.	NA	Analyst:	KM
Report Date :	11/11/15		

EPA METHOD 8270C Modified

Date Samples Rec'd: 11/04/15

Matrix Type: **S**
CTL Sample #: **16801**

Field ID : **T.B. Pond #5**

Results of Analysis-ug/kg

Parameters	**RL**				
Acenaphthylene	500	ND			
Acenaphthene	500	ND			
3-Nitroaniline	500	ND			
Dibenzofuran	500	ND			
2,4-Dinitrotoluene	500	ND			
4-Nitroaniline	500	ND			
Diethyl phthalate	500	ND			
Fluorene	500	ND			
4-Chlorophenyl phenylether	500	ND			
N-Nitrosodimethylamine	500	ND			
4-Bromophenylphenyl ether	500	ND			
Hexachlorobenzene	500	ND			
Pentachlorophenol	1000	ND			
Phenanthrene	500	1,270.0			
Anthracene	500	ND			
Carbazole	500	ND			
Di-n-butyl phthalate	500	ND			
Fluoranthene	500	4,990.0			
Pyrene	500	4,090.0			

Benzidine	1000	ND			
Butylbenzyl phthalate	500	ND			
Benzo(a)anthracene	500	1,130.0			
Chrysene	500	1,760.0			
3,3'-Dichlorobenzidine	500	ND			
Bis(2-ethylhexyl)phthalate	1000	ND			
Di-n-octyl phthalate	500	ND			
Benzo(b)fluoranthene	500	2,520.0			
Benzo(k)fluoranthene	500	970.0			
Benzo(a)pyrene	500	1,350.0			
Indeno(1,2,3-cd)pyrene	1000	ND			
Dibenzo(a,h)anthracene	1000	ND			
Benzo(ghi)perylene	1000	ND			
2-Fluorophenol (SR)	----	112			
Phenol-d6 (SR)	----	104			
Nitrobenzene-d5 (SR)	----	117			
2-Fluororbiphenyl (SR)	----	109			
2,4,6-Tribromophenol (SR)	----	106			
p-Terphenyl-d14 (SR)	----	102			

RL= Reporting Limit **ND**= Not Detected

Matrix Type: W= Water/Aqueous **S**=Soil/Solid O=Oil/Hydrocarbon

SR= Surrogate Recovery-Percent