UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

JUL 21 2015

Mark R. Stebbins, Managing Member
Lawrenceville LLC
1359 Hooksett Road
Hooksett, NH 03106

Re: Authorization to discharge under the Remediation General Permit (RGP) – for the 145-155 Beech Street site located in Chelsea, MA; Authorization # MAG910688

Dear Mr. Stebbins:

Based on the review of a Notice of Intent (NOI) submitted on your behalf by Kathleen Campbell of CDW Consultants, Inc. for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Owner and Operator, to discharge in accordance with the provisions of the RGP at this site. Your authorization number is listed above.

The checklist enclosed with this RGP authorization indicates the pollutants which you are required to monitor. Also indicated on the checklist are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the checklist does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, record keeping, and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete RGP and other information at: http://www.epa.gov/region1/npdes/mass.html#dgp.

Please note the enclosed checklist includes parameters that exceeded or had a reasonable potential to exceed the Appendix III limits. The checklist also includes other parameters for which your laboratory reports indicated there was insufficient sensitivity to detect these parameters at the minimum levels (ML) established in Appendix VI of the RGP. The metals limits that are included on the checklist are dilution dependent. Based on the effluent flow from the treatment system and the low flow of the receiving water, Island End River, the metals limits are based on the dilution factor of 1.9. Also see the RGP's Appendix III for Massachusetts facilities.

Therefore, the following limits will apply to the effluent of this treatment system:

Total Suspended Solids (TSS) - 30 mg/l, Total Group I Polycyclic Aromatic Hydrocarbons - 10 ug/l, Total Group II Polycyclic Aromatic Hydrocarbons - 100 ug/l, Chromium (+3) - 190 ug/l, Copper - 7.0 ug/l, Lead - 16 ug/l, Zinc - 160 ug/l, Iron - 1,900 ug/L, and pH range of 6.5 – 8.5 standard units (s.u.). Monitoring for chloride, tertiary butyl alcohol, 1,4 dioxane, and acetone shall be conducted with no effluent limit.

This EPA general permit and authorization to discharge will expire on September 9, 2015. You have reported this project will terminate on October 1, 2015. Please be aware you are required to reapply for coverage after the EPA expired permit has been reissued. The reissuance date as well as the reapplication submittal date will be posted on the EPA web site at that time. Regardless of your project termination date, you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within thirty (30) days of the termination of the discharge.

Thank you in advance for your cooperation in this matter. Please contact George Papadopoulos at 617-918-1579 or Papadopoulos.George@epa.gov, if you have any questions.

Sincerely,

Thelma Murphy

Thelma Murphy, Chief
Storm Water and Construction
Permits Section

Enclosure

cc: Kathleen Campbell, P.E., CDW Consultants, Inc.
Robert Kubit, MassDEP
Stephen Shea, BWSC

2010 Remediation General Permit
Summary of Monitoring Parameters[1]

NPDES Authorization Number:	**MAG910688**
Authorization Issued:	**July 20, 2015**
Facility/Site Name:	145-155 Beech Street
Facility/Site Address:	
	Email address of owner: mstebbins@proconinc.com
Legal Name of Operator:	Lawrenceville LLC
Operator contact name, title, and Address:	Mark R. Stebbins, Managing Member
	Email: same as above
Estimated date of The Project Completion:	October 1, 2015
Category and Sub-Category:	Contaminated Construction Dewatering Category– Known Contaminated Sites Subcategory
RGP Termination Date:	September 2015
Receiving Water:	Island End River to Mystic River to Boston Inner Harbor

Monitoring & Limits are applicable if checked. All samples are to be collected as grab samples

	Parameter	**Effluent Limit/Method#/ML** (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
√	**1. Total Suspended Solids (TSS)**	30 milligrams/liter (mg/L) **, Me#160.2/ML5ug/L
	2. Total Residual Chlorine (TRC) [1]	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
	4. Cyanide (CN) [2, 3]	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 10ug/L
	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ ML 2ug/L
	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) [4]	100 ug/L/ Me#8260C/ ML 2ug/L

	Parameter	**Effluent Limit/Method#/ML** (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
	11. Methyl-tert-Butyl Ether	70.0 ug/l/Me#8260C/ML 10ug/L
√	**12.tert-Butyl Alcohol (TBA) (Tertiary Butanol)**	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	13. tert-Amyl Methyl Ether (TAME)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	14. Naphthalene [5]	20 ug/L /Me#8260C/ML 2ug/L
	15. Carbon Tetrachloride	4.4 ug/L /Me#8260C/ ML 5ug/L
	16. 1,2 Dichlorobenzene (o-DCB)	600 ug/L /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m-DCB)	320 ug/L /Me#8260C/ ML 5ug/L
	18. 1,4 Dichlorobenzene (p-DCB)	5.0 ug/L /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/L - NH only /Me#8260C/ ML 5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
√	**29. Acetone**	Monitor Only(ug/L)/Me#8260C/ML 50ug/L
√	**30. 1,4 Dioxane**	Monitor Only /Me#1624C/ML 50ug/L
	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML 5ug/L,Me#604 &625/ML 10ug/L
	33. Total Phthalates (Phthalate esters) [6]	3.0 ug/L ** /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L& Me#625/ML 5ug/L
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/L /Me#8270D/ML 5ug/L,Me#606/ML 10ug/L & Me#625/ML 5ug/L
√	**35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)**	10.0 ug/L
√	**a. Benzo(a) Anthracene [7]**	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
√	**b. Benzo(a) Pyrene [7]**	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	**c. Benzo(b)Fluoranthene [7]**	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	**d. Benzo(k)Fluoranthene [7]**	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	**e. Chrysene [7]**	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	**f. Dibenzo(a,h)anthracene [7]**	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
√	**g. Indeno(1,2,3-cd) Pyrene[7]**	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
√	**h. Acenaphthene**	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	**i. Acenaphthylene**	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	**j. Anthracene**	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	**k. Benzo(ghi) Perylene**	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	**l. Fluoranthene**	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	**m. Fluorene**	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	**n. Naphthalene [5]**	20 ug/l / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	**o. Phenanthrene**	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
√	**p. Pyrene**	X/Me#8270D/ML5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) [8, 9]	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
√	**38. Chloride**	Monitor only/Me# 300.0/ ML 100 ug/L

	Metal Parameters	Total Recoverable Metal Limit H [10] = 50 mg/l CaCO3, Units = ug/l Saltwater Limits	Minimum level=ML[11]
	39. Antimony	5.6	10
	40. Arsenic **	36	20
	41. Cadmium **	8.9	10
√	**42. Chromium III (trivalent) ** **	**190**	15
	43. Chromium VI (hexavalent) **	50.3	10
√	**44. Copper ** **	**7.0**	15
√	**45. Lead ** **	**16**	20
	46. Mercury **	1.1	0.2
	47. Nickel **	8.2	20
	48. Selenium **	71	20
	49. Silver	2.2	10
√	**50. Zinc ** **	**160**	15
√	**51. Iron**	**1,900**	20

	Other Parameters	Limit
√	**52. Instantaneous Flow**	Site specific in CFS
√	**53. Total Flow**	Site specific in CFS
	54. pH Range for Class A & Class B Waters in MA	6.5-8.3; 1/Month/Grab[12]
√	**55. pH Range for Class SA & Class SB Waters in MA**	6.5-8.5; 1/Month/Grab[12]
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab[12]
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab[13]
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab[13]
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab[13]
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab[13]
	61. Maximum Change in Temperature in MA – Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab[13]
	62. Maximum Change in Temperature in MA – Any Class SA water body - Coastal	1.5°F; 1/Month/Grab[13]
	63. Maximum Change in Temperature in MA – Any Class SB water body - July to September	1.5°F; 1/Month/Grab[13]
	64. Maximum Change in Temperature in MA –Any Class SB water body - October to June	4°F; 1/Month/Grab[13]

Footnotes:

[1] Although the maximum values for TRC are 11 ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).

[2] Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.

[3] Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).

[4] BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.

[5] Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.

[6] The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

[7] Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

[8] In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses."Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

[9]Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).

[10] Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

[11] Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).

[12] pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.

[13] Temperature sampling per Method 170.1

CDW CONSULTANTS, INC.
CIVIL & ENVIRONMENTAL ENGINEERS

June 22, 2015

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912
ATTN: Remediation General Permit NOI Processing

Re: Notice of Intent for Remediation General Permit
145-155 Beech Street, Chelsea, MA
CDW Project # 1435.00

To Whom It May Concern:

CDW Consultants, Inc. (CDW) is submitting this Notice of Intent (NOI) on behalf of Lawrenceville, LLC for a Remediation General Permit (RGP) under EPA's National Pollutants Discharge Elimination System (NPDES) program. The RGP is required to discharge groundwater encountered during construction activities for development of a new hotel at the above-referenced site.

Construction activities will take place on approximately 1.8 acres, consisting of three parcels, at 145-155 Beech Street Chelsea, MA. The Site is bounded to the north by Carter Street, to the west by Beech Street, and to the south and east by State Highway Route 1 owned by the Massachusetts Department of Transportation (MassDOT). The property is listed as a disposal site under the Massachusetts Contingency Plan (MCP) regulations.

In December 1999, the Massachusetts Department of Environmental Protection (MassDEP) issued Release Tracking Number (RTN) 3-017917 as a result of releases of oil or hazardous materials on the property. The primary contaminant of concern in soil is polychlorinated biphenyls (PCBs), with secondary contaminants consisting of volatile organic compounds (VOCs), petroleum-related compounds, and heavy metals. Some of these contaminants have also been detected at low concentrations in the groundwater. All of the contaminants identified in soil and groundwater are likely related to prior use of the property for the cleaning and re-painting of chemical storage drums in preparation for reuse by the former American Barrel Company ("ABC").

In addition to the NOI application form, we have attached:

- Figure 1: Water Flow Schematic
- Figure 2: Dewatering Treatment System

- Figure 3: MassDEP Priority Resource Map
- Documentation of the Results of the ESA Eligibility Determination
- Endangered Species Act Documentation
- StreamStats Flow Statistics Report
- Massachusetts Cultural Resource Information Report
- ESS Laboratory Analytical Data Report

Please call if you have any further questions. -

Very truly yours, -
CDW CONSULTANTS, INC. -

Kathleen Campbell, PE, LSP, LEED AP -
Vice President -

cc: Massachusetts Department of Environmental Protection
Division of Watershed Management
627 Main Street, 2nd floor
Worcester, MA 01608

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General facility/site information. Please provide the following information about the site:

a) Name of **facility/site**: 145-155 Beech St. Chelsea		**Facility/site** mailing address:			
Location of **facility/site**: longitude: -71.039 latitude: 43.399	Facility SIC code(s): vacant	Street: 145-155 Beech St.			
b) Name of **facility/site owner:** Lawrenceville, LLC		Town: Chelsea			
Email address of facility/site owner: mstebbins@proconinc.com		State: MA	Zip: 02150	County: Suffolk	
Telephone no. of facility/site **owner**: 603-623-8811					
Fax no. of facility/site **owner**:		**Owner** is (check one): 1. Federal ○ 2. State/Tribal ○ 3. Private ◉ 4. Other ○ if so, describe:			
Address of **owner** (if different from site):					
Street: 1359 Hooksett Rd.					
Town: Hooksett	State: NH	Zip: 03106	County: Merrimack		
c) Legal name of **operator**:	**Operator** telephone no: 603-623-8811				
Lawrenceville, LLC	**Operator** fax no.:	**Operator** email: mstebbins@proconinc.com			
Operator contact name and title: Mark R. Stebbins					
Address of **operator** (if different from owner):	Street:				
Town:	State:	Zip:	County:		

d) Check Y for "yes" or N for "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Y ○ N ● , if Y, number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge?
Y ○ N ● , if Y, date and tracking #:
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y ● N ○
4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y ● N ○

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y ○ N ●
If Y, please list:
1. site identification # assigned by the state of NH or MA: RTN 3-17917
2. permit or license # assigned:
3. state agency contact information: name, location, and telephone number:

f) Is the site/facility covered by any other EPA permit, including:
1. Multi-Sector General Permit? Y ○ N ● , if Y, number:
2. Final Dewatering General Permit? Y ○ N ● , if Y, number:
3. EPA Construction General Permit? Y ○ N ● , if Y, number:
4. Individual NPDES permit? Y ○ N ● , if Y, number:
5. any other water quality related individual or general permit? Y ○ N ● , if Y, number:

g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y ○ N ●

h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.

Activity Category	**Activity Sub-Category**
I - Petroleum Related Site Remediation	A. Gasoline Only Sites ☐ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ☐ C. Petroleum Sites with Additional Contamination ☐
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites ☐ B. VOC Sites with Additional Contamination ☐ C. Primarily Heavy Metal Sites ☐
III - Contaminated Construction Dewatering	A. General Urban Fill Sites ☐ B. Known Contaminated Sites ☒

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ☐ B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites ☐ C. Hydrostatic Testing of Pipelines and Tanks ☐ D. Long-Term Remediation of Contaminated Sumps and Dikes ☐ E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ☐

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as necessary) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:

Discharge related to construction dewatering activities

b) Provide the following information about each discharge:

1) Number of discharge points: 2

2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)?
Max. flow 0.023 Is maximum flow a **design value**? Y ○ N ◉
Average flow (include units) 5 gpm Is average flow a design value or estimate? estimate

3) Latitude and longitude of each discharge within 100 feet:

pt.1: lat 42.398031 long -71.038338 pt.2: lat. 42.399656 long. -71.039374;
pt.3: lat long pt.4: lat. long.;
pt.5: lat long pt.6: lat. long.;
pt.7: lat long pt.8: lat. long.; etc.

4) If hydrostatic testing, total volume of the discharge (gals):

5) Is the discharge intermittent ◉ or seasonal ○ ?
Is discharge ongoing? Y ○ N ◉

c) Expected dates of discharge (mm/dd/yy): start 06/01/2015 end 10/1/2015

d) Please attach a line drawing or flow schematic showing water flow through the facility including:
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s). See Figure 1 & Figure 3

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids (TSS)		☐	☒	1	grab	2540D	5000 ug/L	316000	17.2	316000	8.6
2. Total Residual Chlorine (TRC)		☒	☐								
3. Total Petroleum Hydrocarbons (TPH)		☒	☐								
4. Cyanide (CN)	57125	☒	☐								
5. Benzene (B)	71432	☒	☐								
6. Toluene (T)	108883	☒	☐								
7. Ethylbenzene (E)	100414	☒	☐								
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☒	☐								
9. Total BTEX [2]	n/a	☒	☐								
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934	☒	☐								
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒	☐								
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☐	☒	1	grab	8260B	10 ug/L	14.7	0.0008	14.7	0.0004

* Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

[2] BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

[3] EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
13. tert-Amyl Methyl Ether (TAME)	9940508	☒	☐								
14. Naphthalene	91203	☒	☐								
15. Carbon Tetrachloride	56235	☒	☐								
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐								
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐								
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐								
18a. Total dichlorobenzene		☒	☐								
19. 1,1 Dichloroethane (DCA)	75343	☒	☐								
20. 1,2 Dichloroethane (DCA)	107062	☒	☐								
21. 1,1 Dichloroethene (DCE)	75354	☒	☐								
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐								
23. Methylene Chloride	75092	☒	☐								
24. Tetrachloroethene (PCE)	127184	☒	☐								
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐								
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐								
27. Trichloroethene (TCE)	79016	☒	☐								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
28. Vinyl Chloride (Chloroethene)	75014	☒	☐								
29. Acetone	67641	☒	☐								
30. 1,4 Dioxane	123911	☐	☒	1	grab	8270D	5 ug/L	7.0	0.0004	7.0	0.0002
31. Total Phenols	108952	☒	☐								
32. Pentachlorophenol (PCP)	87865	☒	☐								
33. Total Phthalates (Phthalate esters) [4]		☒	☐								
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐								
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐								
a. Benzo(a) Anthracene	56553	☒	☐								
b. Benzo(a) Pyrene	50328	☒	☐								
c. Benzo(b)Fluoranthene	205992	☒	☐								
d. Benzo(k)Fluoranthene	207089	☒	☐								
e. Chrysene	21801	☒	☐								
f. Dibenzo(a,h)anthracene	53703	☒	☐								
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐								
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐								

[4] The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
h. Acenaphthene	83329	☒	☐								
i. Acenaphthylene	208968	☒	☐								
j. Anthracene	120127	☒	☐								
k. Benzo(ghi) Perylene	191242	☒	☐								
l. Fluoranthene	206440	☒	☐								
m. Fluorene	86737	☒	☐								
n. Naphthalene	91203	☒	☐								
o. Phenanthrene	85018	☒	☐								
p. Pyrene	129000	☒	☐								
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐								
38. Chloride	16887006	☐	☒	1	grab	300.0	0.1 ug/L	2320000	126	2320000	63
39. Antimony	7440360	☒	☐								
40. Arsenic	7440382	☒	☐								
41. Cadmium	7440439	☒	☐								
42. Chromium III (trivalent)	16065831	☒	☐								
43. Chromium VI (hexavalent)	18540299	☒	☐								
44. Copper	7440508	☐	☒	1	grab	6010C	15 ug/L	7.4	0.0004	7.4	0.002
45. Lead	7439921	☒	☐								
46. Mercury	7439976	☒	☐								
47. Nickel	7440020	☒	☐								
48. Selenium	7782492	☒	☐								
49. Silver	7440224	☒	☐								
50. Zinc	7440666	☒	☐								
51. Iron	7439896	☐	☒	1	grab	6010C	20 ug/L	19700	1.1	19700	0.5
Other (describe):		☐	☐								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
		☐	☐								
		☐	☐								

b) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

Step 1: Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y ◉ N ○	If yes, which metals? copper, iron
Step 2: For any metals which exceed the **Appendix III** limits, calculate the **dilution factor (DF)** using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metal: copper DF: 1.9 Metal: DF: Metal: iron DF: 1.9 Metal: DF: Etc.	Look up the limit calculated at the corresponding dilution factor in **Appendix IV.** Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ◉ N ○ If Y, list which metals: copper, iron

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

A pump will be utilized to the transport groundwater generated from construction dewatering activities to a frac tank. The groundwater will then pass through a 20-micron bag filter prior to discharge to catch basins along Beech Street and Carter Street. Carbon treatment may also be employed for additional treatment following the bag filter. Influent samples will be collected prior to the frac tank and effluent samples will be collected after the bag filter and carbon treatment (if utilized). See Figure 2 for a flow diagram of the proposed treatment system.

b) Identify each applicable treatment unit (check all that apply):	Frac. tank ☒	Air stripper ☐	Oil/water separator ☐	Equalization tanks ☐	Bag filter ☒	GAC filter ☒
	Chlorination ☐	De-chlorination ☐	Other (please describe):			

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate**(s) (gallons per minute) of the treatment system:
Average flow rate of discharge 5 gpm Maximum flow rate of treatment system 10 gpm
Design flow rate of treatment system 5 gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct to receiving water ☐	Within facility (sewer) ☐	Storm drain ☒	Wetlands ☐	Other (describe):

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
Catch Basins on Beech St. & Carter St. to culvert into Island End River to Mystic River to Boston Inner Harbor

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: See Figure 1 & Figure 3
1. For multiple discharges, number the discharges sequentially.
2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water
The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water SB(CSO)

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 0.0204 cfs
Please attach any calculation sheets used to support stream flow and dilution calculations.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ○ N ● If yes, for which pollutant(s)? Enterococcus, Fecal Coliform, Dissolved Oxygen, PCB in fish tissue

Is there a final TMDL? Y ○ N ● If yes, for which pollutant(s)?

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?

A ◉ B ○ C ○ D ○ E ○ F ○

b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ○ N ○ Underway ○

c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received? Y ○ N ○

d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.

e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?

1 ◉ 2 ○ 3 ○

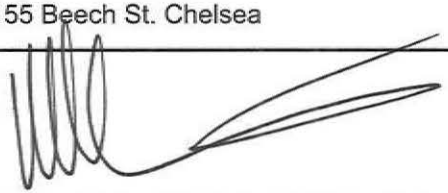
f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

7. Supplemental information.

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name:	145-155 Beech St. Chelsea
Operator signature:	
Printed Name &Title:	Mark R. Stebbins Managing Member
Date:	6/22/15

NOTES:
ALL SOIL TESTING PERFORMED ABOVE FABRIC

APPROXIMATE POSSIBLE TREATMENT UNIT LOCATIONS

DISCHARGE PT 1

LIMITS OF CONSTRUCTION & AREA OF POTENTIAL CONSTRUCTION DEWATERING/ SOURCE OF INTAKE WATER

DISCHARGE PT 2

ROUTE 1 (PUBLIC - VARIABLE WIDTH - LAYOUT 4190)

BEECH STREET (PUBLIC - 70' WIDE)

CARTER STREET (PUBLIC - VARIABLE WIDTH)

ORIGINAL NORTHSOUTH BOUNDARY

REVISED NORTHSOUTH BOUNDARY

LIMIT OF STATE LAYOUT

MAP (PRIVATE - (ARE

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 INCH = 50 FT.

NO	DATE	REVISIONS

SEAL

DATE : November 11, 2014
DRAWN : ESW
SCALE : 1" = 50'

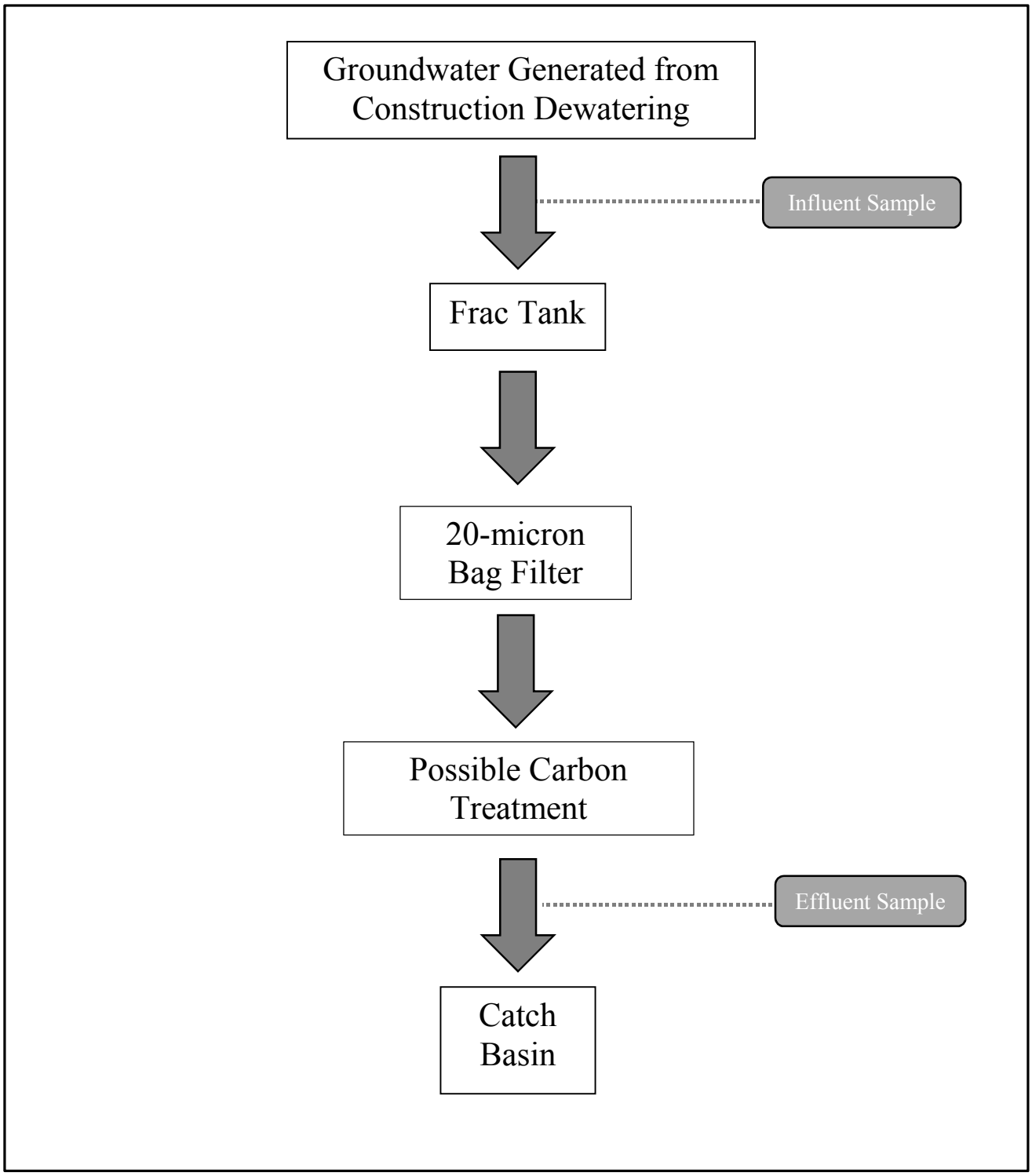
WATER FLOW SCHEMATIC

145-155 BEECH STREET
CHELSEA, MA

CDW CONSULTANTS, INC.
CIVIL/ENVIRONMENTAL ENGINEERS
40 SPEEN STREET
SUITE 301
FRAMINGHAM, MA 01701
TEL. (508) 875-2557 FAX. (508) 875
www.cdwconsultants.co

FIGURE 1

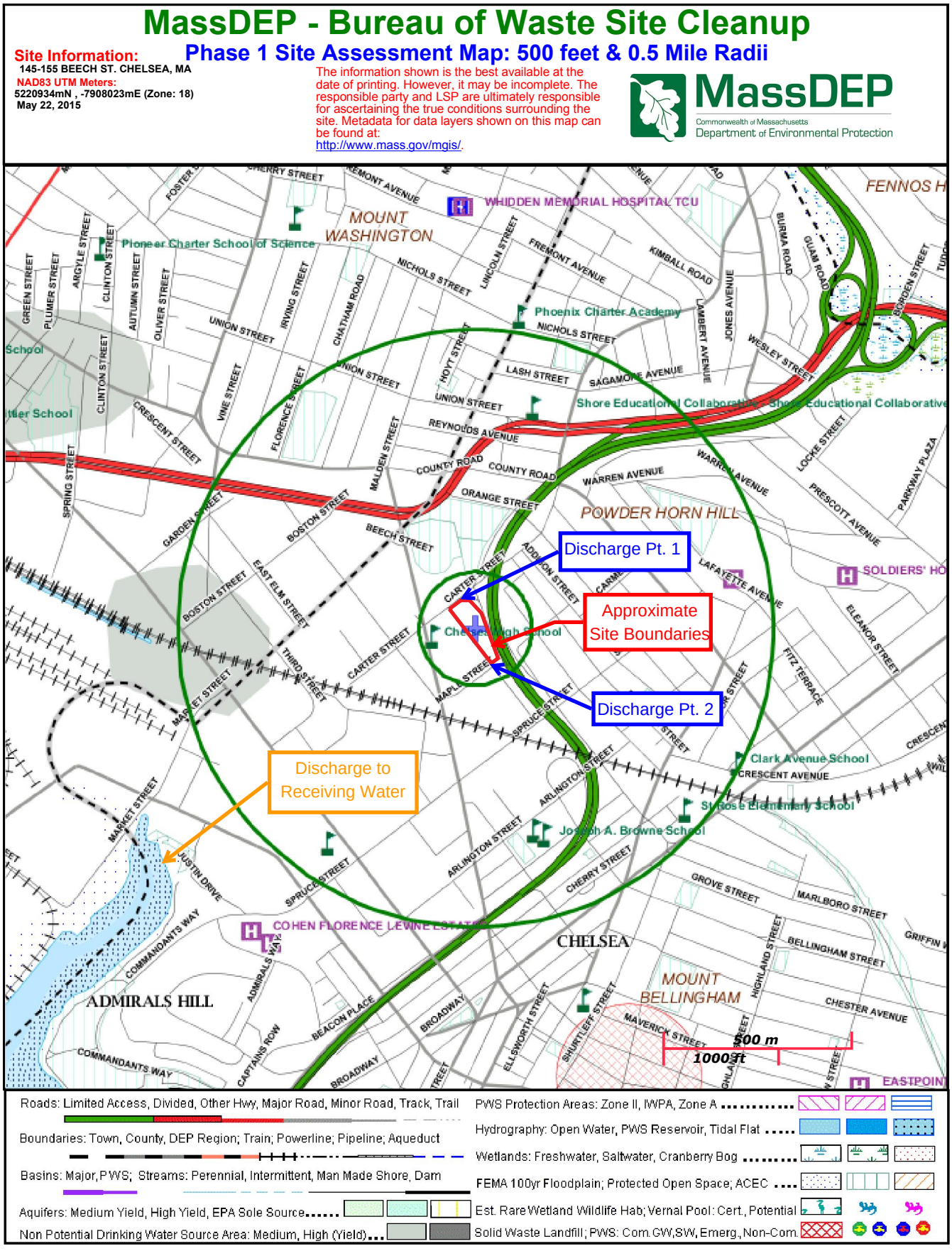
1435.0



CDW Consultants, Inc.

Figure 2
Dewatering Treatment System
145-155 Beech Street
Chelsea, MA

Figure 3 - MassDEP Priority Resource Map



Documentation of the Results of the ESA Eligibility Determination:

Using Appendix VII and information in Appendix II of the NPDES RGP, the 145-155 Beech St. Chelsea project is eligible for coverage under this general permit under Criterion A. Chelsea is located in Suffolk County and there are no Endangered Species in Suffolk County according to the Federally Listed Endangered and Threated Species in Massachusetts List Updated 1/9/2015 available on the U.S. Fish & Wildlife Service New England Field Office webpage. The 145-155 Beech St. Chelsea project is located within 1/6 of a mile of Everett. Everett is located in Middlesex County and there are no Endangered Species in Middlesex County according to the Federally Listed Endangered and Threated Species in Massachusetts List Updated 1/9/2015. A copy of the Federally Listed Endangered and Threated Species in Massachusetts List Updated 1/9/2015 is attached. No designated critical habitats were listed in Suffolk or Middlesex County.

An Endangered Species Consultation per the attached instructions which were provided on U.S. Fish & Wildlife Service New England Field Office webpage was conducted for the following species:

- The Northern Long-eared Bat was listed as "Proposed Endangered" in both counties, statewide
- The Red Knot was listed as "Threatened" in Suffolk County

The small whorled Pogonia, listed as threated in Middlesex County, was not evaluated because it is only listed in the Town of Groton. The Piping Plover, listed as threated in Suffolk County, was not evaluated because it is only listed in the Towns of Revere and Winthrop. The habitat for the Northern Long-eared Bat is described as mines and caves and a wide variety of forested habitats; these habitats are not present within miles of the project. The habitat for the Red Knot is described as coastal beaches and rocky shores, sand and mud flats; these habitats are not present within miles of the project. Based on this evaluation, no endangered or threatened species or their designated critical habitat are likely to occur in proximity to the storm water discharges or discharge related activities.

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Barnstable	Piping Plover	Threatened	Coastal Beaches	All Towns
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Chatham
	Sandplain gerardia	Endangered	Open areas with sandy soils.	Sandwich and Falmouth.
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Bourne (north of the Cape Cod Canal)
	Red Knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Berkshire	Bog Turtle	Threatened	Wetlands	Egremont and Sheffield
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Bristol	Piping Plover	Threatened	Coastal Beaches	Fairhaven, Dartmouth, Westport
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Fairhaven, New Bedford, Dartmouth, Westport
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Taunton
	Red Knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Dukes	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Piping Plover	Threatened	Coastal Beaches	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Aquinnah and Chilmark
	Sandplain gerardia	Endangered	Open areas with sandy soils.	West Tisbury
	Red Knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

Updated 01/09/2015

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Essex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Gloucester, Essex and Manchester
	Piping Plover	Threatened	Coastal Beaches	Gloucester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
	Red Knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague, Warwick
	Dwarf wedgemussel	Endangered	Mill River	Whately
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Hampshire	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Hadley
	Puritan tiger beetle	Threatened	Sandy beaches along the Connecticut River	Northampton and Hadley
	Dwarf wedgemussel	Endangered	Rivers and Streams.	Hatfield, Amherst and Northampton
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Nantucket	Piping Plover	Threatened	Coastal Beaches	Nantucket
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Nantucket
	American burying beetle	Endangered	Upland grassy meadows	Nantucket
	Red Knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

Updated 01/09/2015

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Plymouth	Piping Plover	Threatened	Coastal Beaches	Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoisett
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, Wareham, Halifax, and Pembroke
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoisett.
	Red Knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Suffolk	Piping Plover	Threatened	Coastal Beaches	Revere, Winthrop
	Red Knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Worcester	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Leominster
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

[1]Migratory only, scattered along the coast in small numbers

-Eastern cougar and gray wolf are considered extirpated in Massachusetts.
-Endangered gray wolves are not known to be present in Massachusetts, but dispersing individuals from source populations in Canada may occur statewide.
-Critical habitat for the Northern Red-bellied Cooter is present in Plymouth County.

Updated 01/09/2015

D70	0.0876	ft3/s				
D75	0.0811	ft3/s				
D80	0.11	ft3/s				
D85	0.0743	ft3/s				
D90	0.0854	ft3/s				
D95	0.0387	ft3/s				
D98	0.0283	ft3/s				
D99	0.019	ft3/s				
M7D2Y	0.0369	ft3/s				
AUGD50	0.0924	ft3/s				
M7D10Y	0.0204	ft3/s				

http://pubs.usgs.gov/wri/wri004135/ (http://pubs.usgs.gov/wri/wri004135/)
Ries_ K.G._ III_ 2000_ Methods for estimating low-flow statistics for Massachusetts streams: U.S. Geological Survey Water Resources Investigations Report 00-4135_ 81 p.

Probability of Perennial Flow Streamflow Statistics						
Statistic	Value	Unit	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
					Min	Max
PROBPEREN	0.64	dim	0.6		0.39	0.85

http://pubs.usgs.gov/sir/2006/5031/pdfs/SIR_2006-5031rev.pdf (http://pubs.usgs.gov/sir/2006/5031/pdfs/SIR_2006-5031rev.pdf)
Bent_ G.C._ and Steeves_ P.A._ 2006_ A revised logistic regression equation and an automated procedure for mapping the probability of a stream flowing perennially in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2006-5031_ 107 p.

Bankfull Flows Streamflow Statistics						
Statistic	Value	Unit	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
					Min	Max
BFWDTH	4.21	ft				
BFDPTH	0.37	ft				
BFAREA	1.53	ft2				
BFFLOW	1.38	ft3/s				

http://pubs.usgs.gov/sir/2013/5155/ (http://pubs.usgs.gov/sir/2013/5155/)
Bent_ G.C._ and Waite_ A.M._ 2013_ Equations for estimating bankfull channel geometry and discharge for streams in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2013-5155_ 62 p._

145-155 Beech Street, Chelsea, MA

IPaC Trust Resource Report

Generated May 27, 2015 01:54 PM MDT

US Fish & Wildlife Service

IPaC Trust Resource Report

Project Description

NAME

145-155 Beech Street, Chelsea, MA

PROJECT CODE

SVSUA-3PSY5-EL7GU-QQDKY-ERWPZM

LOCATION

Suffolk County, Massachusetts

DESCRIPTION

No description provided

U.S. Fish & Wildlife Contact Information

Species in this report are managed by:

New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 3301-5094
(603) 223-2541

Endangered Species

Proposed, candidate, threatened, and endangered species that are managed by the Endangered Species Program and should be considered as part of an effect analysis for this project.

Birds

Red Knot Calidris canutus rufa — Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DM

Critical Habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

There is no critical habitat within this project area

Migratory Birds

Birds are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

American Oystercatcher Haematopus palliatus — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0G8

American Bittern Botaurus lentiginosus — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F3

Bald Eagle Haliaeetus leucocephalus — **Bird of conservation concern**
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008

Black-billed Cuckoo Coccyzus erythropthalmus — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HI

Blue-winged Warbler Vermivora pinus — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0JY

Canada Warbler Wilsonia canadensis — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0LL

Hudsonian Godwit Limosa haemastica — **Bird of conservation concern**
Season: Migrating
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0JM

Least Bittern Ixobrychus exilis — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0JW

Peregrine Falcon Falco peregrinus — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FU

Pied-billed Grebe Podilymbus podiceps — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0JQ

Prairie Warbler Dendroica discolor — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0K4

Purple Sandpiper Calidris maritima — **Bird of conservation concern**
Season: Wintering
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0L1

Saltmarsh Sparrow Ammodramus caudacutus — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0MY

Seaside Sparrow Ammodramus maritimus — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0N0

Short-eared Owl Asio flammeus — **Bird of conservation concern**
Season: Wintering
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HD

Snowy Egret Egretta thula — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0LC

Upland Sandpiper Bartramia longicauda — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HC

Wood Thrush Hylocichla mustelina — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0IB

Worm Eating Warbler Helmitheros vermivorum — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0II

Refuges

Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

There are no refuges within this project area

Wetlands

Impacts to NWI wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate U.S. Army Corps of Engineers District.

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Wetland data is unavailable at this time.

StreamStats Version 3 Beta

Flow Statistics Ungaged Site Report

Date: Fri May 8, 2015 12:45:34 PM GMT-4
Site Location: Massachusetts
NAD 1983 Latitude: 42.3942 (42 23 39)
NAD 1983 Longitude: -71.0498 (-71 03 00)
Drainage Area: 0.095 mi2

Low Flows Basin Characteristics			
100% Statewide Low Flow WRIR00 4135 (0.095 mi2)			
Parameter	**Value**	**Regression Equation Valid Range**	
		Min	**Max**
Drainage Area (square miles)	0.095 (below min value 1.61)	1.61	149
Mean Basin Slope from 250K DEM (percent)	0.350	0.32	24.6
Stratified Drift per Stream Length (square mile per mile)	5.02 (above max value 1.29)	0	1.29
Massachusetts Region (dimensionless)	0	0	1

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Probability of Perennial Flow Basin Characteristics			
100% Perennial Flow Probability (0.095 mi2)			
Parameter	**Value**	**Regression Equation Valid Range**	
		Min	**Max**
Drainage Area (square miles)	0.095	0.01	1.99
Percent Underlain By Sand And Gravel (percent)	7.66	0	100
Percent Forest (percent)	0.00	0	100
Massachusetts Region (dimensionless)	0	0	1

Bankfull Flows Basin Characteristics			
100% Bankfull Statewide SIR2013 5155 (0.095 mi2)			
Parameter	**Value**	**Regression Equation Valid Range**	
		Min	**Max**
Drainage Area (square miles)	0.095 (below min value 0.6)	0.6	329
Mean Basin Slope from 10m DEM (percent)	0.986 (below min value 2.2)	2.2	23.9

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Low Flows Streamflow Statistics						
Statistic	**Value**	**Unit**	**Prediction Error (percent)**	**Equivalent years of record**	**90-Percent Prediction Interval**	
					Min	**Max**
D50	0.0866	ft3/s				
D60	0.0788	ft3/s				

Results

Get Results in Report Format
(•) PDF ( ) Spreadsheet

Below are the results of your search, using the following search criteria:
Town(s): Chelsea
Street Name: Beech
Resource Type(s): Area, Building, Burial Ground, Object, Structure

For more information about this page and how to use it, click here

No Results Found.

New Search | New Search – Same Town(s) | Previous

MHC Home | MACRIS Home

CERTIFICATE OF ANALYSIS

Lauren Konetzny
CDW Consultants, Inc.
40 Speen Street Suite 301
Framingham, MA 01701

RE: Beech St Chelsea (1435)
ESS Laboratory Work Order Number: 1505115

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 4:32 pm, May 13, 2015

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505115

SAMPLE RECEIPT

The following samples were received on May 06, 2015 for the analyses specified on the enclosed Chain of Custody Record.

The samples and analyses listed below were analyzed in accordance with the 2010 Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES).

Lab Number	Sample Name	Matrix	Analysis
1505115-01	DW-1	Ground Water	4500 H+ B, 4500-Cl E, 6010C, 7196A

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505115

PROJECT NARRATIVE

Classical Chemistry
1505115-01 **The maximum holding time listed in 40 CFR Part 136 Table II for pH, Dissolved Oxygen, Sulfite and Residual Chlorine is fifteen minutes.**
Total Residual Chlorine

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505115

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP and Graphite Furnace Digestion
3020A - Aqueous ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea
Client Sample ID: DW-1
Date Sampled: 05/06/15 14:30
Percent Solids: N/A

ESS Laboratory Work Order: 1505115
ESS Laboratory Sample ID: 1505115-01
Sample Matrix: Ground Water
Units: ug/L

Extraction Method: [CALC]

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Chromium III	**35** (10)		6010C		1	JLK	05/08/15 17:33	1	1	[CALC]

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea
Client Sample ID: DW-1
Date Sampled: 05/06/15 14:30
Percent Solids: N/A

ESS Laboratory Work Order: 1505115
ESS Laboratory Sample ID: 1505115-01
Sample Matrix: Ground Water

Classical Chemistry

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	Units	Batch
Hexavalent Chromium	ND (10)		7196A		1	JLK	05/06/15 18:16	ug/L	CE50656
pH	**7.38** (N/A)		4500 H+ B		1	JLK	05/06/15 18:12	S.U.	CE50653
pH Sample Temp	**Aqueous pH measured in water at 15.4 ºC.** (N/A)								
Total Residual Chlorine	**HT** ND (0.01)		4500-Cl E		1	JLK	05/06/15 18:36	mg/L	CE50657

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505115

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Classical Chemistry										
Batch CE50656 - General Preparation										
Blank										
Hexavalent Chromium	ND	10	ug/L							
LCS										
Hexavalent Chromium	493	10	ug/L	499.8		99	90-110			
LCS Dup										
Hexavalent Chromium	495	10	ug/L	499.8		99	90-110	0.4	20	
Batch CE50657 - General Preparation										
Blank										
Total Residual Chlorine	ND	0.01	mg/L							
LCS										
Total Residual Chlorine	0.99		mg/L	0.9960		99	85-115			

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505115

Notes and Definitions

Z16	Aqueous pH measured in water at 15.4 ºC.
U	Analyte included in the analysis, but not detected
HT	The maximum holding time listed in 40 CFR Part 136 Table II for pH, Dissolved Oxygen, Sulfite and Residual Chlorine is fifteen minutes.
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report
[2C]	Result was taken from the second column. Dual column analysis.

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505115

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI0002
http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: CDW Consultants
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 15050115
Date Project Due: 5/13/2015
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present?	* No	10. Are the samples properly preserved?	Yes
Air No.:		11. Proper sample containers used?	Yes
2. Were Custody Seals Present?	No	12. Any air bubbles in the VOA vials?	N/A
3. Were Custody Seals Intact?	N/A	13. Holding times exceeded?	No
4. Is Radiation count < 100 CPM?	Yes	14. Sufficient sample volumes?	Yes
5. Is a cooler present?	Yes	15. Any Subcontracting needed?	No
Cooler Temp: **2.4**		16. Are ESS labels on correct containers?	Yes|No
Iced With: **Ice**		17. Were samples received intact?	Yes|No
6. Was COC included with samples?	Yes	ESS Sample IDs:	
7. Was COC signed and dated by client?	Yes	Sub Lab:	
8. Does the COC match the sample	Yes	Analysis:	
9. Is COC complete and correct?	Yes	TAT:	

18. Was there need to call project manager to discuss status? If yes, please explain.

Hex Cr & Cr split - Cr preserved in house on 5/6/15 1800

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	250 ml Plastic	1	NP
1	Yes	500 ml Plastic	1	HNO3

Completed By: _____ Date/Time: 5/6/15 1800
Reviewed By: Nancy A Rose Date/Time: 5/6/15 1800

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

NPDES RGP   1505115.

Turn Time X Standard Other ______
If faster than 5 days, prior approval by laboratory is required # ______

State where samples were collected from: (MA) RI CT NH NJ NY ME Other ______

Is this project for any of the following: (MA-MCP) Navy USACE Other ______

Reporting Limits ~~GW-2 & GW-3~~ ↓

ESS LAB PROJECT ID: 1505115

Electronic Deliverable Yes X No ___
Format: Excel X Access ___ PDF X Other ______

Co. Name	CDW Consultants, Inc.
Project #	~~1601.19~~ 1435
Project Name (20 Char. or less)	Beech St. Chelsea ~~KCS Braintree~~
Contact Person	Lauren Konetzny
Address	40 Speen St. Suite 301
City	Framingham
State	MA
Zip	01701
PO#	~~1601.19~~ 1435
Telephone #	(508) 875-2657
Fax #	
Email Address	lkonetzny@cdwconsultants.com

Circle and/or Write Required Analysis: 8260 VOA; 624; 524.2; 8021 MTBE/BTEX; 8015 GRO; VPH (circled); 8100 TPH; 8015 DRO; EPH w/o PAH; EPH (circled); EPH 4 Diesel; 8081 Pesticides; 8082 PCB; 608 Pesticides; 608 PCB; 8270 SVOA; 625; PAH 8270; RCRA5; RCRA8; PP13; TAL23; TCLP-RCRA8; NBC7; MCP-METALS (13); MCP-METALS (13) w/Hg; PH; CR6 + CR3; TRC

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	PH	CR6 + CR3	TRC
	~~5/6/15~~			~~X~~	~~GW~~		~~2~~	~~5~~	~~V~~			
1	5/6/15	2:30		X	GW	DW-1	1	1	P	X	X	X

24 Hour Hold

Container Type: P-Poly G-Glass S-Sterile V-VOA
Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ✓ Yes ___ No
Seals Intact ___ Yes ___ No NA: ✓
Cooler Temp 2.4 Ice RLH

Internal Use Only
[ ] Pickup
[ ] Technicians

Preservation Code 1- NP, 2- HCl, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- ______

Sampled by: Lauren Konetzny

Comments: For NPDES, RGP !!! 24 hour Hold

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	5/6/15 4:00	[signature]	5/6/15 1600	[signature]	5/6/15 1736		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 A

CERTIFICATE OF ANALYSIS

Lauren Konetzny
CDW Consultants, Inc.
40 Speen Street Suite 301
Framingham, MA 01701

RE: Beech St Chelsea (1435)
ESS Laboratory Work Order Number: 1505204

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 1:07 pm, May 20, 2015

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505204

SAMPLE RECEIPT

The following samples were received on May 08, 2015 for the analyses specified on the enclosed Chain of Custody Record.

The samples and analyses listed below were analyzed in accordance with the 2010 Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES).

Lab Number	Sample Name	Matrix	Analysis
1505204-01	North	Ground Water	1664A, 2540D, 300.0, 420.1, 4500 CN CE, 6010C, 7010, 7470A, 8011, 8082A, 8260B, 8270D, 8270D SIM

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505204

PROJECT NARRATIVE

8260B Volatile Organic Compounds

CE51130-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Acetone (190% @ 70-130%)
CE51130-BSD1	**Blank Spike recovery is above upper control limit (B+).**
	Acetone (177% @ 70-130%)

8270D(SIM) Semi-Volatile Organic Compounds

1505204-01	**Surrogate recovery(ies) above upper control limit (S+).**
	2,4,6-Tribromophenol (124% @ 15-110%)
1505204-01	**Surrogate recovery(ies) below lower control limit (S-).**
	2-Fluorobiphenyl (5% @ 30-130%)
CE51403-BS2	**Blank Spike recovery is above upper control limit (B+).**
	bis(2-Ethylhexyl)phthalate (162% @ 40-140%)
CE51403-BSD2	**Blank Spike recovery is above upper control limit (B+).**
	bis(2-Ethylhexyl)phthalate (162% @ 40-140%)
CYE0202-CCV1	**Continuing Calibration recovery is below lower control limit (C-).**
	Diethylphthalate (69% @ 70-130%)

8270D(SIM) Semi-Volatile Organic Compounds w/ Isotope Dilution

CYE0181-CCV1	**Continuing Calibration recovery is above upper control limit (C+).**
	1,4-Dioxane-d8 (126% @ 80-120%)
CYE0225-CCV1	**Continuing Calibration recovery is above upper control limit (C+).**
	1,4-Dioxane-d8 (125% @ 80-120%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505204

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP and Graphite Furnace Digestion
3020A - Aqueous ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea
Client Sample ID: North
Date Sampled: 05/07/15 11:00
Percent Solids: N/A

ESS Laboratory Work Order: 1505204
ESS Laboratory Sample ID: 1505204-01
Sample Matrix: Ground Water
Units: ug/L

Extraction Method: 3005A/200.7

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Antimony	**J 1.3** (2.0)	0.2	7010		1	KJK	05/13/15 1:43	50	10	CE50809
Arsenic	**4.7** (4.0)	0.3	7010		2	KJK	05/12/15 6:40	50	10	CE50809
Cadmium	ND (0.2)	0.01	7010		1	KJK	05/14/15 0:56	50	10	CE50809
Copper	**7.4** (4.0)	1.6	6010C		2	JP	05/09/15 15:16	50	10	CE50809
Iron	**19700** (40.0)	9.2	6010C		2	JP	05/09/15 15:16	50	10	CE50809
Lead	**6.7** (1.0)	0.2	7010		1	KJK	05/13/15 4:23	50	10	CE50809
Mercury	ND (0.200)	0.120	7470A		1	RLA	05/11/15 15:32	20	40	CE50910
Nickel	**J 3.3** (8.0)	0.8	6010C		2	JP	05/09/15 15:16	50	10	CE50809
Selenium	ND (2.0)	0.3	7010		1	KJK	05/12/15 8:07	50	10	CE50809
Silver	ND (0.1)	0.03	7010		1	KJK	05/13/15 22:54	50	10	CE50809
Zinc	**34.9** (20.0)	3.6	6010C		2	JP	05/09/15 15:16	50	10	CE50809

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea
Client Sample ID: North
Date Sampled: 05/07/15 11:00
Percent Solids: N/A
Initial Volume: 1070
Final Volume: 1
Extraction Method: 3510C

ESS Laboratory Work Order: 1505204
ESS Laboratory Sample ID: 1505204-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: TAJ
Prepared: 5/13/15 10:00

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.09)	0.03	8082A		1	05/15/15 11:52		CE51547
Aroclor 1221	ND (0.09)	0.03	8082A		1	05/15/15 11:52		CE51547
Aroclor 1232	ND (0.09)	0.03	8082A		1	05/15/15 11:52		CE51547
Aroclor 1242	ND (0.09)	0.03	8082A		1	05/15/15 11:52		CE51547
Aroclor 1248	ND (0.09)	0.03	8082A		1	05/15/15 11:52		CE51547
Aroclor 1254	**J 0.06** (0.09)	0.03	8082A		1	05/15/15 11:52		CE51547
Aroclor 1260	ND (0.09)	0.03	8082A		1	05/15/15 11:52		CE51547
Aroclor 1262	ND (0.09)	0.03	8082A		1	05/15/15 11:52		CE51547
Aroclor 1268	ND (0.09)	0.03	8082A		1	05/15/15 11:52		CE51547

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*64 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*64 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*68 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*64 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea
Client Sample ID: North
Date Sampled: 05/07/15 11:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1505204
ESS Laboratory Sample ID: 1505204-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: ZLC

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1-Trichloroethane	ND (1.0)	0.2	8260B		1	05/11/15 18:05	CYE0137	CE51130
1,1,2-Trichloroethane	ND (1.0)	0.2	8260B		1	05/11/15 18:05	CYE0137	CE51130
1,1-Dichloroethane	ND (1.0)	0.2	8260B		1	05/11/15 18:05	CYE0137	CE51130
1,1-Dichloroethene	ND (1.0)	0.3	8260B		1	05/11/15 18:05	CYE0137	CE51130
1,2-Dichlorobenzene	**J 0.6** (1.0)	0.1	8260B		1	05/11/15 18:05	CYE0137	CE51130
1,2-Dichloroethane	ND (1.0)	0.2	8260B		1	05/11/15 18:05	CYE0137	CE51130
1,3-Dichlorobenzene	ND (1.0)	0.2	8260B		1	05/11/15 18:05	CYE0137	CE51130
1,4-Dichlorobenzene	ND (1.0)	0.1	8260B		1	05/11/15 18:05	CYE0137	CE51130
Acetone	**22.3** (10.0)	2.7	8260B		1	05/11/15 18:05	CYE0137	CE51130
Benzene	**J 0.9** (1.0)	0.1	8260B		1	05/11/15 18:05	CYE0137	CE51130
Carbon Tetrachloride	ND (1.0)	0.1	8260B		1	05/11/15 18:05	CYE0137	CE51130
cis-1,2-Dichloroethene	ND (1.0)	0.2	8260B		1	05/11/15 18:05	CYE0137	CE51130
Ethylbenzene	ND (1.0)	0.1	8260B		1	05/11/15 18:05	CYE0137	CE51130
Methyl tert-Butyl Ether	ND (1.0)	0.3	8260B		1	05/11/15 18:05	CYE0137	CE51130
Methylene Chloride	ND (2.0)	0.2	8260B		1	05/11/15 18:05	CYE0137	CE51130
Naphthalene	**1.0** (1.0)	0.2	8260B		1	05/11/15 18:05	CYE0137	CE51130
Tertiary-amyl methyl ether	ND (1.0)	0.2	8260B		1	05/11/15 18:05	CYE0137	CE51130
Tertiary-butyl Alcohol	**J 14.7** (25.0)	10.0	8260B		1	05/11/15 18:05	CYE0137	CE51130
Tetrachloroethene	ND (1.0)	0.2	8260B		1	05/11/15 18:05	CYE0137	CE51130
Toluene	**J 0.1** (1.0)	0.1	8260B		1	05/11/15 18:05	CYE0137	CE51130
Trichloroethene	ND (1.0)	0.2	8260B		1	05/11/15 18:05	CYE0137	CE51130
Vinyl Chloride	ND (1.0)	0.2	8260B		1	05/11/15 18:05	CYE0137	CE51130
Xylene O	ND (1.0)	0.1	8260B		1	05/11/15 18:05	CYE0137	CE51130
Xylene P,M	ND (2.0)	0.2	8260B		1	05/11/15 18:05	CYE0137	CE51130

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*94 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*98 %*		*70-130*
Surrogate: Dibromofluoromethane	*90 %*		*70-130*
Surrogate: Toluene-d8	*97 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea
Client Sample ID: North
Date Sampled: 05/07/15 11:00
Percent Solids: N/A
Initial Volume: 1070
Final Volume: 1
Extraction Method: 3520C

ESS Laboratory Work Order: 1505204
ESS Laboratory Sample ID: 1505204-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: VSC
Prepared: 5/12/15 19:20

8270D(SIM) Semi-Volatile Organic Compounds w/ Isotope Dilution

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,4-Dioxane	**7.0** (0.2)	0.07	8270D		1	05/13/15 20:57	CYE0181	CE51243

	%Recovery	Qualifier	Limits
Surrogate: 1,4-Dioxane-d8	62 %		15-115

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea
Client Sample ID: North
Date Sampled: 05/07/15 11:00
Percent Solids: N/A
Initial Volume: 1070
Final Volume: 0.25
Extraction Method: 3510C

ESS Laboratory Work Order: 1505204
ESS Laboratory Sample ID: 1505204-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: VSC
Prepared: 5/14/15 15:02

8270D(SIM) Semi-Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Acenaphthene	ND (0.19)	0.04	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Acenaphthylene	ND (0.19)	0.03	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Anthracene	**J 0.14** (0.19)	0.03	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Benzo(a)anthracene	**0.06** (0.05)	0.01	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Benzo(a)pyrene	**J 0.03** (0.05)	0.01	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Benzo(b)fluoranthene	**J 0.04** (0.05)	0.02	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Benzo(g,h,i)perylene	**J 0.03** (0.19)	0.02	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Benzo(k)fluoranthene	ND (0.05)	0.02	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
bis(2-Ethylhexyl)phthalate	ND (2.34)	0.19	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Butylbenzylphthalate	ND (2.34)	0.19	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Chrysene	**J 0.04** (0.05)	0.01	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Dibenzo(a,h)Anthracene	ND (0.05)	0.02	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Diethylphthalate	ND (2.34)	0.19	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Dimethylphthalate	ND (2.34)	0.19	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Di-n-butylphthalate	ND (2.34)	0.19	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Di-n-octylphthalate	ND (2.34)	0.19	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Fluoranthene	**J 0.09** (0.19)	0.02	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Fluorene	**J 0.04** (0.19)	0.03	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Indeno(1,2,3-cd)Pyrene	**J 0.03** (0.05)	0.02	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Naphthalene	ND (0.19)	0.04	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Pentachlorophenol	ND (0.84)	0.30	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Phenanthrene	**J 0.06** (0.19)	0.04	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403
Pyrene	**J 0.06** (0.19)	0.02	8270D SIM		1	05/15/15 10:38	CYE0202	CE51403

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	*54 %*		*30-130*
Surrogate: 2,4,6-Tribromophenol	*124 %*	*S+*	*15-110*
Surrogate: 2-Fluorobiphenyl	*5 %*	*S-*	*30-130*
Surrogate: Nitrobenzene-d5	*75 %*		*30-130*
Surrogate: p-Terphenyl-d14	*84 %*		*30-130*

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea
Client Sample ID: North
Date Sampled: 05/07/15 11:00
Percent Solids: N/A

ESS Laboratory Work Order: 1505204
ESS Laboratory Sample ID: 1505204-01
Sample Matrix: Ground Water

Classical Chemistry

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	Units	Batch
Chloride	**2320** (500)		300.0		1000	EEM	05/11/15 20:09	mg/L	CE51118
Phenols	ND (0.10)	0.03	420.1		1	EEM	05/12/15 16:05	mg/L	CE51242
Total Cyanide (LL)	**J 2.7** (5.0)	1.8	4500 CN CE		1	JLK	05/14/15 0:00	ug/L	CE51420
Total Petroleum Hydrocarbon	ND (5)		1664A		1	JLK	05/12/15 11:19	mg/L	CE50906
Total Suspended Solids	**316** (10)		2540D		1	EEM	05/11/15 16:30	mg/L	CE51124

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea
Client Sample ID: North
Date Sampled: 05/07/15 11:00
Percent Solids: N/A
Initial Volume: 35
Final Volume: 2
Extraction Method: 504/8011

ESS Laboratory Work Order: 1505204
ESS Laboratory Sample ID: 1505204-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: JXS
Prepared: 5/13/15 12:22

8011 1,2-Dibromoethane / 1,2-Dibromo-3-chloropropane

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	Sequence	Batch
1,2-Dibromoethane	ND (0.015)	0.005	8011		1	JXS	05/13/15 14:47		CE51237

	%Recovery	Qualifier	Limits
Surrogate: Pentachloroethane	*102 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505204

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Total Metals										
Batch CE50809 - 3005A/200.7										
Blank										
Antimony	ND	2.0	ug/L							
Arsenic	ND	2.0	ug/L							
Cadmium	ND	0.2	ug/L							
Copper	ND	2.0	ug/L							
Iron	ND	20.0	ug/L							
Lead	ND	1.0	ug/L							
Nickel	ND	4.0	ug/L							
Selenium	ND	2.0	ug/L							
Silver	ND	1.0	ug/L							
Silver	ND	0.1	ug/L							
Zinc	ND	10.0	ug/L							
LCS										
Antimony	254	100	ug/L	250.0		102	80-120			
Arsenic	276	100	ug/L	250.0		110	80-120			
Cadmium	125	250	ug/L	125.0		100	80-120			J
Copper	244	5.0	ug/L	250.0		98	80-120			
Iron	1220	50.0	ug/L	1250		98	80-120			
Lead	248	50.0	ug/L	250.0		99	80-120			
Nickel	247	10.0	ug/L	250.0		99	80-120			
Selenium	538	100	ug/L	500.0		108	80-120			
Silver	132	25.0	ug/L	125.0		106	80-120			
Silver	124	2.5	ug/L	125.0		99	80-120			
Zinc	241	25.0	ug/L	250.0		96	80-120			
LCS Dup										
Antimony	230	100	ug/L	250.0		92	80-120	10	20	
Arsenic	246	100	ug/L	250.0		99	80-120	11	20	
Cadmium	117	250	ug/L	125.0		93	80-120	7	20	J
Copper	239	5.0	ug/L	250.0		95	80-120	2	20	
Iron	1170	50.0	ug/L	1250		93	80-120	4	20	
Lead	226	50.0	ug/L	250.0		91	80-120	9	20	
Nickel	240	10.0	ug/L	250.0		96	80-120	3	20	
Selenium	490	100	ug/L	500.0		98	80-120	9	20	
Silver	135	25.0	ug/L	125.0		108	80-120	2	20	
Silver	121	2.5	ug/L	125.0		96	80-120	3	20	
Zinc	236	25.0	ug/L	250.0		95	80-120	2	20	
Batch CE50910 - 245.1/7470A										
Blank										
Mercury	ND	0.200	ug/L							
LCS										
Mercury	6.77	0.200	ug/L	6.000		113	80-120			
LCS Dup										
Mercury	6.65	0.200	ug/L	6.000		111	80-120	2	20	

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505204

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CE51547 - 3510C										
Blank										
Aroclor 1016	ND	0.10	ug/L							
Aroclor 1221	ND	0.10	ug/L							
Aroclor 1232	ND	0.10	ug/L							
Aroclor 1242	ND	0.10	ug/L							
Aroclor 1248	ND	0.10	ug/L							
Aroclor 1254	ND	0.10	ug/L							
Aroclor 1260	ND	0.10	ug/L							
Aroclor 1262	ND	0.10	ug/L							
Aroclor 1268	ND	0.10	ug/L							
Surrogate: Decachlorobiphenyl	*0.0371*		ug/L	*0.05000*		*74*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0389*		ug/L	*0.05000*		*78*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0253*		ug/L	*0.05000*		*51*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0237*		ug/L	*0.05000*		*47*	*30-150*			
LCS										
Aroclor 1016	0.63	0.10	ug/L	1.000		63	40-140			
Aroclor 1260	0.74	0.10	ug/L	1.000		74	40-140			
Surrogate: Decachlorobiphenyl	*0.0385*		ug/L	*0.05000*		*77*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0391*		ug/L	*0.05000*		*78*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0254*		ug/L	*0.05000*		*51*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0254*		ug/L	*0.05000*		*51*	*30-150*			
LCS Dup										
Aroclor 1016	0.73	0.10	ug/L	1.000		73	40-140	15	20	
Aroclor 1260	0.76	0.10	ug/L	1.000		76	40-140	2	20	
Surrogate: Decachlorobiphenyl	*0.0371*		ug/L	*0.05000*		*74*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0381*		ug/L	*0.05000*		*76*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0302*		ug/L	*0.05000*		*60*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0304*		ug/L	*0.05000*		*61*	*30-150*			
8260B Volatile Organic Compounds										
Batch CE51130 - 5030B										
Blank										
1,1,1-Trichloroethane	ND	1.0	ug/L							
1,1,2-Trichloroethane	ND	1.0	ug/L							
1,1-Dichloroethane	ND	1.0	ug/L							
1,1-Dichloroethene	ND	1.0	ug/L							
1,2-Dichlorobenzene	ND	1.0	ug/L							
1,2-Dichloroethane	ND	1.0	ug/L							
1,3-Dichlorobenzene	ND	1.0	ug/L							
1,4-Dichlorobenzene	ND	1.0	ug/L							
Acetone	ND	10.0	ug/L							
Benzene	ND	1.0	ug/L							

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505204

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE51130 - 5030B										
Carbon Tetrachloride	ND	1.0	ug/L							
cis-1,2-Dichloroethene	ND	1.0	ug/L							
Ethylbenzene	ND	1.0	ug/L							
Methyl tert-Butyl Ether	ND	1.0	ug/L							
Methylene Chloride	ND	2.0	ug/L							
Naphthalene	ND	1.0	ug/L							
Tertiary-amyl methyl ether	ND	1.0	ug/L							
Tertiary-butyl Alcohol	ND	25.0	ug/L							
Tetrachloroethene	ND	1.0	ug/L							
Toluene	ND	1.0	ug/L							
Trichloroethene	ND	1.0	ug/L							
Vinyl Chloride	ND	1.0	ug/L							
Xylene O	ND	1.0	ug/L							
Xylene P,M	ND	2.0	ug/L							
Surrogate: 1,2-Dichloroethane-d4	*23.9*		ug/L	*25.00*		*96*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*25.5*		ug/L	*25.00*		*102*	*70-130*			
Surrogate: Dibromofluoromethane	*22.5*		ug/L	*25.00*		*90*	*70-130*			
Surrogate: Toluene-d8	*24.2*		ug/L	*25.00*		*97*	*70-130*			
LCS										
1,1,1-Trichloroethane	9.1		ug/L	10.00		91	70-130			
1,1,2-Trichloroethane	9.6		ug/L	10.00		96	70-130			
1,1-Dichloroethane	8.9		ug/L	10.00		89	70-130			
1,1-Dichloroethene	9.2		ug/L	10.00		92	70-130			
1,2-Dichlorobenzene	10.3		ug/L	10.00		103	70-130			
1,2-Dichloroethane	9.1		ug/L	10.00		91	70-130			
1,3-Dichlorobenzene	10.6		ug/L	10.00		106	70-130			
1,4-Dichlorobenzene	10.4		ug/L	10.00		104	70-130			
Acetone	94.8		ug/L	50.00		190	70-130			B+
Benzene	9.6		ug/L	10.00		96	70-130			
Carbon Tetrachloride	9.6		ug/L	10.00		96	70-130			
cis-1,2-Dichloroethene	9.3		ug/L	10.00		93	70-130			
Ethylbenzene	9.0		ug/L	10.00		90	70-130			
Methyl tert-Butyl Ether	9.6		ug/L	10.00		96	70-130			
Methylene Chloride	8.0		ug/L	10.00		80	70-130			
Naphthalene	10.0		ug/L	10.00		100	70-130			
Tertiary-amyl methyl ether	9.3		ug/L	10.00		93	70-130			
Tertiary-butyl Alcohol	61.1		ug/L	50.00		122	70-130			
Tetrachloroethene	11.3		ug/L	10.00		113	70-130			
Toluene	9.5		ug/L	10.00		95	70-130			
Trichloroethene	9.6		ug/L	10.00		96	70-130			
Vinyl Chloride	8.8		ug/L	10.00		88	70-130			
Xylene O	8.3		ug/L	10.00		83	70-130			
Xylene P,M	17.7		ug/L	20.00		88	70-130			
Surrogate: 1,2-Dichloroethane-d4	*27.4*		ug/L	*25.00*		*110*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*23.5*		ug/L	*25.00*		*94*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505204

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE51130 - 5030B										
Surrogate: Dibromofluoromethane	*26.2*		ug/L	*25.00*		*105*	*70-130*			
Surrogate: Toluene-d8	*25.2*		ug/L	*25.00*		*101*	*70-130*			
LCS Dup										
1,1,1-Trichloroethane	9.0		ug/L	10.00		90	70-130	1	25	
1,1,2-Trichloroethane	9.7		ug/L	10.00		97	70-130	0.7	25	
1,1-Dichloroethane	8.8		ug/L	10.00		88	70-130	1	25	
1,1-Dichloroethene	9.3		ug/L	10.00		93	70-130	0.5	25	
1,2-Dichlorobenzene	10.0		ug/L	10.00		100	70-130	3	25	
1,2-Dichloroethane	9.1		ug/L	10.00		91	70-130	0	25	
1,3-Dichlorobenzene	10.3		ug/L	10.00		103	70-130	2	25	
1,4-Dichlorobenzene	10.3		ug/L	10.00		103	70-130	0.5	25	
Acetone	88.4		ug/L	50.00		177	70-130	7	25	B+
Benzene	9.5		ug/L	10.00		95	70-130	1	25	
Carbon Tetrachloride	9.4		ug/L	10.00		94	70-130	1	25	
cis-1,2-Dichloroethene	9.4		ug/L	10.00		94	70-130	0.4	25	
Ethylbenzene	9.0		ug/L	10.00		90	70-130	0.6	25	
Methyl tert-Butyl Ether	9.5		ug/L	10.00		95	70-130	2	25	
Methylene Chloride	7.8		ug/L	10.00		78	70-130	3	25	
Naphthalene	9.7		ug/L	10.00		97	70-130	3	25	
Tertiary-amyl methyl ether	9.0		ug/L	10.00		90	70-130	3	25	
Tertiary-butyl Alcohol	56.2		ug/L	50.00		112	70-130	8	25	
Tetrachloroethene	11.4		ug/L	10.00		114	70-130	0.5	25	
Toluene	9.6		ug/L	10.00		96	70-130	0.9	25	
Trichloroethene	9.5		ug/L	10.00		95	70-130	0.5	25	
Vinyl Chloride	8.7		ug/L	10.00		87	70-130	0.3	25	
Xylene O	8.3		ug/L	10.00		83	70-130	0.1	25	
Xylene P,M	17.7		ug/L	20.00		88	70-130	0	25	
Surrogate: 1,2-Dichloroethane-d4	*26.6*		ug/L	*25.00*		*106*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*23.1*		ug/L	*25.00*		*92*	*70-130*			
Surrogate: Dibromofluoromethane	*25.5*		ug/L	*25.00*		*102*	*70-130*			
Surrogate: Toluene-d8	*24.8*		ug/L	*25.00*		*99*	*70-130*			
8270D(SIM) Semi-Volatile Organic Compounds w/ Isotope Dilution										
Batch CE51243 - 3520C										
Blank										
1,4-Dioxane	0.4	0.2	ug/L							
Surrogate: 1,4-Dioxane-d8	*4.13*		ug/L	*5.000*		*83*	*15-115*			
LCS										
1,4-Dioxane	8.4	0.2	ug/L	10.00		84	40-140			
Surrogate: 1,4-Dioxane-d8	*3.63*		ug/L	*5.000*		*73*	*15-115*			
LCS Dup										
1,4-Dioxane	7.8	0.2	ug/L	10.00		78	40-140	8	20	
Surrogate: 1,4-Dioxane-d8	*4.55*		ug/L	*5.000*		*91*	*15-115*			

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505204

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8270D(SIM) Semi-Volatile Organic Compounds										
Batch CE51403 - 3510C										
Blank										
Acenaphthene	ND	0.20	ug/L							
Acenaphthylene	ND	0.20	ug/L							
Anthracene	ND	0.20	ug/L							
Benzo(a)anthracene	ND	0.05	ug/L							
Benzo(a)pyrene	ND	0.05	ug/L							
Benzo(b)fluoranthene	ND	0.05	ug/L							
Benzo(g,h,i)perylene	ND	0.20	ug/L							
Benzo(k)fluoranthene	ND	0.05	ug/L							
bis(2-Ethylhexyl)phthalate	ND	2.50	ug/L							
Butylbenzylphthalate	ND	2.50	ug/L							
Chrysene	ND	0.05	ug/L							
Dibenzo(a,h)Anthracene	ND	0.05	ug/L							
Diethylphthalate	ND	2.50	ug/L							
Dimethylphthalate	ND	2.50	ug/L							
Di-n-butylphthalate	ND	2.50	ug/L							
Di-n-octylphthalate	ND	2.50	ug/L							
Fluoranthene	ND	0.20	ug/L							
Fluorene	ND	0.20	ug/L							
Indeno(1,2,3-cd)Pyrene	ND	0.05	ug/L							
Naphthalene	ND	0.20	ug/L							
Pentachlorophenol	ND	0.90	ug/L							
Phenanthrene	ND	0.20	ug/L							
Pyrene	ND	0.20	ug/L							
Surrogate: 1,2-Dichlorobenzene-d4	*1.07*		ug/L	*2.500*		*43*	*30-130*			
Surrogate: 2,4,6-Tribromophenol	*3.18*		ug/L	*3.750*		*85*	*15-110*			
Surrogate: 2-Fluorobiphenyl	*1.41*		ug/L	*2.500*		*57*	*30-130*			
Surrogate: Nitrobenzene-d5	*2.11*		ug/L	*2.500*		*84*	*30-130*			
Surrogate: p-Terphenyl-d14	*2.04*		ug/L	*2.500*		*82*	*30-130*			
LCS										
Acenaphthene	2.86	0.20	ug/L	4.000		72	40-140			
Acenaphthylene	2.81	0.20	ug/L	4.000		70	40-140			
Anthracene	3.21	0.20	ug/L	4.000		80	40-140			
Benzo(a)anthracene	3.02	0.05	ug/L	4.000		75	40-140			
Benzo(a)pyrene	3.23	0.05	ug/L	4.000		81	40-140			
Benzo(b)fluoranthene	3.25	0.05	ug/L	4.000		81	40-140			
Benzo(g,h,i)perylene	3.30	0.20	ug/L	4.000		82	40-140			
Benzo(k)fluoranthene	3.22	0.05	ug/L	4.000		81	40-140			
bis(2-Ethylhexyl)phthalate	6.47	2.50	ug/L	4.000		162	40-140			B+
Butylbenzylphthalate	3.75	2.50	ug/L	4.000		94	40-140			
Chrysene	3.02	0.05	ug/L	4.000		76	40-140			
Dibenzo(a,h)Anthracene	3.37	0.05	ug/L	4.000		84	40-140			
Diethylphthalate	3.09	2.50	ug/L	4.000		77	40-140			
Dimethylphthalate	3.24	2.50	ug/L	4.000		81	40-140			
Di-n-butylphthalate	3.38	2.50	ug/L	4.000		85	40-140			

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505204

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8270D(SIM) Semi-Volatile Organic Compounds										
Batch CE51403 - 3510C										
Di-n-octylphthalate	3.74	2.50	ug/L	4.000		94	40-140			
Fluoranthene	3.24	0.20	ug/L	4.000		81	40-140			
Fluorene	2.97	0.20	ug/L	4.000		74	40-140			
Indeno(1,2,3-cd)Pyrene	3.31	0.05	ug/L	4.000		83	40-140			
Naphthalene	2.46	0.20	ug/L	4.000		62	40-140			
Pentachlorophenol	2.40	0.90	ug/L	4.000		60	30-130			
Phenanthrene	3.15	0.20	ug/L	4.000		79	40-140			
Pyrene	3.04	0.20	ug/L	4.000		76	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	*1.59*		ug/L	*2.500*		*63*	*30-130*			
Surrogate: 2,4,6-Tribromophenol	*4.07*		ug/L	*3.750*		*109*	*15-110*			
Surrogate: 2-Fluorobiphenyl	*1.84*		ug/L	*2.500*		*74*	*30-130*			
Surrogate: Nitrobenzene-d5	*2.14*		ug/L	*2.500*		*85*	*30-130*			
Surrogate: p-Terphenyl-d14	*2.11*		ug/L	*2.500*		*85*	*30-130*			
LCS Dup										
Acenaphthene	2.79	0.20	ug/L	4.000		70	40-140	3	20	
Acenaphthylene	2.73	0.20	ug/L	4.000		68	40-140	3	20	
Anthracene	3.41	0.20	ug/L	4.000		85	40-140	6	20	
Benzo(a)anthracene	3.35	0.05	ug/L	4.000		84	40-140	10	20	
Benzo(a)pyrene	3.33	0.05	ug/L	4.000		83	40-140	3	20	
Benzo(b)fluoranthene	3.31	0.05	ug/L	4.000		83	40-140	2	20	
Benzo(g,h,i)perylene	3.33	0.20	ug/L	4.000		83	40-140	0.9	20	
Benzo(k)fluoranthene	3.15	0.05	ug/L	4.000		79	40-140	2	20	
bis(2-Ethylhexyl)phthalate	6.46	2.50	ug/L	4.000		162	40-140	0.03	20	B+
Butylbenzylphthalate	3.96	2.50	ug/L	4.000		99	40-140	6	20	
Chrysene	3.19	0.05	ug/L	4.000		80	40-140	5	20	
Dibenzo(a,h)Anthracene	3.48	0.05	ug/L	4.000		87	40-140	3	20	
Diethylphthalate	3.25	2.50	ug/L	4.000		81	40-140	5	20	
Dimethylphthalate	3.27	2.50	ug/L	4.000		82	40-140	1	20	
Di-n-butylphthalate	3.62	2.50	ug/L	4.000		90	40-140	7	20	
Di-n-octylphthalate	3.74	2.50	ug/L	4.000		93	40-140	0.2	20	
Fluoranthene	3.55	0.20	ug/L	4.000		89	40-140	9	20	
Fluorene	3.05	0.20	ug/L	4.000		76	40-140	3	20	
Indeno(1,2,3-cd)Pyrene	3.43	0.05	ug/L	4.000		86	40-140	4	20	
Naphthalene	2.28	0.20	ug/L	4.000		57	40-140	8	20	
Pentachlorophenol	2.34	0.90	ug/L	4.000		59	30-130	2	20	
Phenanthrene	3.27	0.20	ug/L	4.000		82	40-140	4	20	
Pyrene	3.29	0.20	ug/L	4.000		82	40-140	8	20	
Surrogate: 1,2-Dichlorobenzene-d4	*1.35*		ug/L	*2.500*		*54*	*30-130*			
Surrogate: 2,4,6-Tribromophenol	*3.62*		ug/L	*3.750*		*97*	*15-110*			
Surrogate: 2-Fluorobiphenyl	*1.60*		ug/L	*2.500*		*64*	*30-130*			
Surrogate: Nitrobenzene-d5	*1.89*		ug/L	*2.500*		*76*	*30-130*			
Surrogate: p-Terphenyl-d14	*2.25*		ug/L	*2.500*		*90*	*30-130*			
Classical Chemistry										
Batch CE50906 - General Preparation										

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505204

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Classical Chemistry										
Batch CE50906 - General Preparation										
Blank										
Total Petroleum Hydrocarbon	ND	5	mg/L							
LCS										
Total Petroleum Hydrocarbon	17	5	mg/L	19.38		88	66-114			
Batch CE51118 - General Preparation										
Blank										
Chloride	ND	0.5	mg/L							
LCS										
Chloride	2.3		mg/L	2.500		94	90-110			
Batch CE51124 - General Preparation										
Blank										
Total Suspended Solids	ND	5	mg/L							
LCS										
Total Suspended Solids	68		mg/L	68.80		99	80-120			
Batch CE51242 - General Preparation										
Blank										
Phenols	ND	0.10	mg/L							
LCS										
Phenols	0.10	0.10	mg/L	0.1000		98	80-120			J
LCS										
Phenols	1.01	0.10	mg/L	1.000		101	80-120			
Batch CE51420 - TCN Prep										
Blank										
Total Cyanide (LL)	ND	5.0	ug/L							
LCS										
Total Cyanide (LL)	19.4	5.0	ug/L	20.06		97	90-110			
LCS										
Total Cyanide (LL)	155	5.0	ug/L	150.4		103	90-110			
LCS Dup										
Total Cyanide (LL)	156	5.0	ug/L	150.4		104	90-110	0.7	20	
8011 1,2-Dibromoethane / 1,2-Dibromo-3-chloropropane										
Batch CE51237 - 504/8011										
Blank										
1,2-Dibromoethane	ND	0.015	ug/L							
Surrogate: Pentachloroethane	*0.191*		ug/L	*0.2000*		*96*	*30-150*			
LCS										
1,2-Dibromoethane	0.244	0.015	ug/L	0.2000		122	60-140			
Surrogate: Pentachloroethane	*0.227*		ug/L	*0.2000*		*114*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505204

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8011 1,2-Dibromoethane / 1,2-Dibromo-3-chloropropane										
Batch CE51237 - 504/8011										
LCS										
1,2-Dibromoethane	0.090	0.015	ug/L	0.08000		113	60-140			
Surrogate: Pentachloroethane	*0.0870*		ug/L	*0.2000*		*44*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea ESS Laboratory Work Order: 1505204

Notes and Definitions

U	Analyte included in the analysis, but not detected
S+	Surrogate recovery(ies) above upper control limit (S+).
S-	Surrogate recovery(ies) below lower control limit (S-).
J	Reported between MDL and MRL
D	Diluted.
C+	Continuing Calibration recovery is above upper control limit (C+).
C-	Continuing Calibration recovery is below lower control limit (C-).
B+	Blank Spike recovery is above upper control limit (B+).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report
[2C]	Result was taken from the second column. Dual column analysis.

CERTIFICATE OF ANALYSIS

Client Name: CDW Consultants, Inc.
Client Project ID: Beech St Chelsea

ESS Laboratory Work Order: 1505204

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI0002
http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: CDW Consultants
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 15050204
Date Project Due: 5/15/15
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present?	* No	10. Are the samples properly preserved?	Yes
Air No.:		11. Proper sample containers used?	Yes
2. Were Custody Seals Present?	No	12. Any air bubbles in the VOA vials?	* Yes
3. Were Custody Seals Intact?	N/A	13. Holding times exceeded?	No
4. Is Radiation count < 100 CPM?	Yes	14. Sufficient sample volumes?	Yes
5. Is a cooler present?	Yes	15. Any Subcontracting needed?	No
Cooler Temp: **2.9**		16. Are ESS labels on correct containers?	**Yes|No**
Iced With: **Ice**		17. Were samples received intact?	**Yes|No**
6. Was COC included with samples?	Yes	ESS Sample IDs:	_____
7. Was COC signed and dated by client?	Yes	Sub Lab:	_____
8. Does the COC match the sample	Yes	Analysis:	_____
9. Is COC complete and correct?	Yes	TAT:	_____

18. Was there need to call project manager to discuss status? If yes, please explain.
(VIAL has headspace (air bubble) 687711 W 5/8/15

Who was called?:_____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	1 L Glass	2	H2SO4
1	Yes	1 L Glass	6	NP
1	Yes	1 L Plastic	1	NP
1	Yes	250 ml Plastic	1	HNO3 W
1	Yes	250 ml Plastic	1	NaOH ~~pH>12~~ pH=11 W 5/8/15
1	Yes	40 ml - VOA	6 W 5/8/15	HCL ~~1637~~ 1836 W

Completed By: _____ Date/Time: 5/8/15 ~~1637~~ 1837
Reviewed By: Nancy Rook Date/Time: 5/8/15 1845

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Page 1 of 1

Turn Time: X Standard Other ____ If faster than 5 days, prior approval by laboratory is required # ____
State where samples were collected from: MA RI CT NH NJ NY ME Other ____
Is this project for any of the following: MA-MCP Navy USACE Other NPDES RGP

Reporting Limits: NPDES RGP
ESS LAB PROJECT ID: 1505204
Electronic Deliverable: Yes X No ____
Format: Excel X Access ____ PDF X Other ____

Co. Name	Project #	Project Name (20 Char. or less)
CDW Consultants, Inc.	1435	Beech St. Chelsea

Contact Person	Address
Lauren Konetzny	40 Speen St.

City	State	Zip	PO#
Framingham	MA	01701	1435

Telephone #	Fax #	Email Address
(508) 875-2657		lkonetzny@cdwconsultants.com

Circle and/or Write Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 VOCs + EDB	8021 MTBE/BTEX	VPH w/targets	8015 GRO	8015 DRO (+ Total Phenols)	TPH	EPH w/o PAHs	EPH w/PAHs	EPH 4 Diesel	8081 Pesticides	608 Pesticides + PCB	8082 PCB	608 PAH	8270 625	8270 SVOA	PP13	TAL23	RCRA5	RCRA8	TCLP-RCRA8	NBC7	MCP-METALS (13) w/Hg	MCP-METALS (13)	Antimony, Arsenic, Cadmium, Copper, Lead, Mercury, Nickel, Selenium, Silver, Zinc, Iron	TSS Chloride	1,4 Dioxane	Cyanide
1	5/7/15	9:50		X	GW	North	1	1	P																									X		
1		9:45		X		North	5	1	P																										X	
1		9:45		X		North	2	6	V	X																										
1		~~10:15-10:00~~		X		North	1	6	G											X	X													X		
																				X	X													X		
1		~~10:05-10:30~~ ~~10:15-11:00~~		X		North	3	2	G					X																					
1		9:45		X		North	4	1	P																								X	X		

Container Type: P-Poly G-Glass S-Sterile V-VOA
Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: ___ Yes ___ No Internal Use Only
Seals Intact: ___ Yes ___ No NA: ___ [ ] Pickup
Cooler Temp: 2.9 ICE [ ] Technicians ____

Preservation Code 1- NP, 2- HCl, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- ____
Sampled by: Lauren Konetzny
Comments: NPDES RGP

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Lauren Konetzny	5/7/15 2:30			FEDEX	5/8/15 1359	[illegible]	5/8/15 1359
[illegible]	5/8/15 1754	[illegible]	5/8/15 1829				

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 A