



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

CERTIFIED MAIL RETURN RECEIPT REQUESTED

MAY 17 2012

Peter Burch  
Project Manager  
J. Derenzo Company  
338 Howard Street  
Brockton, MA 02302

Re: Authorization to discharge under the Remediation General Permit (RGP) –  
MAG910000. Longwood Center Redevelopment site located at 1 Joslin Place, Boston,  
MA 02215, Suffolk County; Authorization # MAG910534

Dear Mr. Burch:

Based on the review of a Notice of Intent (NOI) submitted on behalf of ARE/ND/CR Longwood LLC., by your firm J. Derenzo Company, for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Operator, to discharge in accordance with the provisions of the RGP at that 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 you have marked "Believed Present." The checklist also includes total petroleum hydrocarbons, Group I and Group II polycyclic aromatic hydrocarbons (PAHs) and PCBs in view of their historic presence. You are required to monitor these parameters for the next six months at the end of which time if these pollutants are not detected in the influent, in accordance with RGP regulations (Part II.2.1.i) you may request a deletion of these influent parameters by filing a Notice of Change (NOC). Please see Appendix V of the RGP for more information.

Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to limitations based on selected dilution ranges and technology-based ceiling limitations. For each parameter the dilution factor 111 for this site is within a dilution range greater than one hundred (>100), established in the RGP. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the limits for arsenic of 540 ug/L, cadmium of 20 ug/L, trivalent chromium of 1,710 ug/L, copper of 520 ug/L, lead of 132 ug/L, nickel of 2,380 ug/L, selenium of 408 ug/L, zinc of 1,480 ug/L and iron of 5,000 ug/L, are required to achieve permit compliance at your site.

Finally, please note the checklist of pollutants attached to this authorization is subject to a recertification if the operations at the site result in a discharge lasting longer than six months. A recertification can be submitted to EPA within six (6) to twelve (12) months of operations in accordance with the 2010 RGP regulations.

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project will terminate on March 1, 2014. If for any reason the discharge terminates sooner you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or Alvarez.Victor@epa.gov, if you have any questions.

Sincerely,



Thelma Murphy, Manager  
Storm Water and Construction  
Permits Section

Enclosure

cc: Kathleen Keohane, MassDEP  
Paul Canavan, BW&SC

**2010 Remediation General Permit  
Summary of Monitoring Parameters<sup>[1]</sup>**

<b>NPDES Authorization Number:</b>	<b>MAG910534</b>
Authorization Issued:	May, 2012
Facility/Site Name:	Longwood Center Redevelopment
Facility/Site Address:	1 Joslin Place, Boston, MA 02215, Suffolk County
	Email address of owner: SCLancy@NatDev.com
Legal Name of Operator:	J. Derenzo Company
Operator contact name, title, and Address:	Peter Burch, Project Manager J. Derenzo Company, 338 Howard Street, Brockton, MA 02302
	Email: John Folan, Site Forman: jfolan@jderenzo.com
Estimated date of Completion:	March 1, 2014
Category and Sub-Category:	Category III-Contaminated Construction Dewatering. Sub-category A& B. General Urban Fill Sites and Known Contaminated Sites respectively.
RGP Termination Date:	September 10, 2015
Receiving Water:	Charles River

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

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (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) **, 50 mg/L for hydrostatic testing **, Me#60.2/ML5ug/L
	2. Total Residual Chlorine (TRC) <sup>1</sup>	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) <sup>2, 3</sup>	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	100 ug/L/ Me#8260C/ ML 2ug/L

	<b><u>Parameter</u></b>	<b><u>Effluent Limit/Method#/ML</u></b> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	(BTEX) <sup>4</sup>	
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l/Me#8260C/ML 10ug/L
	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	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 <sup>5</sup>	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) <sup>6</sup>	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

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
✓	a. Benzo(a) Anthracene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	b. Benzo(a) Pyrene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	c. Benzo(b)Fluoranthene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	d. Benzo(k)Fluoranthene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	e. Chrysene <sup>7</sup>	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	f. Dibenzo(a,h)anthracene <sup>7</sup>	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 <sup>7</sup>	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 <sup>5</sup>	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) <sup>8,9</sup>	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
✓	38. Chloride	Monitor only/Me# 300.0/ ML 0.1ug/L

	<u>Metal parameter</u>	<u>Total Recoverable Metal Limit @ H<sup>10</sup> = 50 mg/l CaCO<sub>3</sub> for discharges in Massachusetts (ug/l)</u> <sub>11/12</sub>		<u>Minimum level=ML</u>
		<u>Freshwater</u>	<u>Saltwater</u>	
	39. Antimony	5.6/ML	10	

	<b>Metal parameter</b>	<b>Total Recoverable Metal Limit @ H<sup>10</sup> = 50 mg/l CaCO<sub>3</sub> for discharges in Massachusetts (ug/l) 11/12</b>		<b>Minimum level=ML</b>
		<b>Freshwater</b>	<b>Saltwater</b>	
✓	40. Arsenic **	540/ML20		
✓	41. Cadmium **	20/ML10		
✓	42. Chromium III (trivalent) **	1,710/ML15		
	43. Chromium VI (hexavalent) **	11.4/ML10		
✓	44. Copper **	520/ML15		
✓	45. Lead **	132/ML20		
	46. Mercury **	0.9/ML0.2		
✓	47. Nickel **	2,380/ML20		
✓	48. Selenium **	408/ML20		
	49. Silver	1.2/ML10		
✓	50. Zinc **	1,480/ML15		
✓	51. Iron	5,000/ML 20		

	<b>Other Parameters</b>	<b>Limit</b>
✓	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 <sup>13</sup>
	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab <sup>13</sup>
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab <sup>13</sup>
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab <sup>14</sup>
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab <sup>14</sup>
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab <sup>14</sup>
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab <sup>14</sup>
	61. Maximum Change in Temperature in MA - Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab <sup>14</sup>
	62. Maximum Change in Temperature in MA - Any Class SA water body - Coastal	1.5°F; 1/Month/Grab <sup>14</sup>
	63. Maximum Change in Temperature in MA - Any Class SB water body - July to September	1.5°F; 1/Month/Grab <sup>14</sup>
	64. Maximum Change in Temperature in MA -Any Class SB water body - October to June	4°F; 1/Month/Grab <sup>14</sup>

Footnotes:

<sup>1</sup> Although the maximum values for TRC are 11ug/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).

<sup>2</sup> 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.

<sup>3</sup> 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).

<sup>4</sup> BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.

<sup>5</sup> 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.

<sup>6</sup> 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.*

<sup>7</sup> 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.

<sup>8</sup> 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.

<sup>9</sup>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).

<sup>10</sup> Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

<sup>11</sup> For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using  $DF \times 1,000\text{ug/L}$  (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit =  $1,000 \times 2 = 2,000$  ug/L., etc. not to exceed the DF=5.

<sup>12</sup> 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).

<sup>13</sup> pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.

<sup>14</sup> Temperature sampling per Method 170.1



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# J. DERENZO COMPANY

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MAG-910534

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

April 12, 2012  
File No. 2849.01

Re: Notice of Intent for the Remediation General Permit  
Temporary Construction Dewatering for Site Redevelopment  
Longwood Center, Boston, Massachusetts

Dear Sir/Madam:

On behalf of ARE/ND/CR Longwood LLC, J. Derenzo Company, (Derenzo) has submitted this Notice of Intent (NOI) to the U.S. EPA for coverage under the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) MAG910000. This letter and supporting documentation were prepared in accordance with the U.S. EPA guidance for construction dewatering under the RGP program. Derenzo is the earthwork contractor for the project and will have direct responsibility for the dewatering activities at the Project Site. All subcontractors working for Derenzo on the project will be required to meet the requirements of this NOI and the RGP. The location of discharge via a storm drain is shown on Figure 1 and the extent of the Project Site is shown on Figure 2.

The Project Site is located west of Brookline Avenue, south of Longwood Ave, and east of Pilgrim Road in Boston, Massachusetts. Redevelopment activities include mass excavation of soil, installation of new utility systems and the earthwork required to prepare the Project Site for the construction of an 11-story research/office building and three levels of below-grade parking. The proposed building will be constructed using a perimeter slurry wall to provide excavation support during construction and act as the permanent foundation walls for the below-grade portion of the structure. It is anticipated that urban fill and soils contaminated with polychlorinated biphenyls (PCBs) and petroleum will be encountered during earthwork activities. The Massachusetts Department of Environmental Protection (DEP) has assigned a Release Tracking Number (RTN) 3-25456 to the disposal site located on this property under the Massachusetts Contingency Plan (310 CMR 40.0000). The oil and/or hazardous material (OHM) observed at this RTN is light non-aqueous phase liquid (LNAPL), which was observed in a monitoring well installed in June 2006 in the vicinity of a former UST.

According to the Massachusetts Geographical Information System (MassGIS), the excavation activities will not impact Areas of Critical Environmental Concern (ACEC) or Habitats of Rare Wetland Wildlife. A review of the information on the U.S. Fish and Wildlife Service website led to the conclusion that the project will not impact federally-listed threatened or endangered species. A letter from that agency is included in Appendix D. A

letter requesting information regarding Oceanic Fisheries was sent to the National Oceanic and Atmospheric Administration (NOAA), and their response (Appendix D) states that no listed species are known to occur in the Charles River.

The excavation for the removal of contaminated soils will require excavation of soil to a depth of approximately 35 to 55 feet below ground surface (bgs), depending on the location. Groundwater is anticipated to be encountered between 8 to 16 feet bgs. Groundwater that flows into the excavations during excavation activities will be treated prior to discharge to a storm drain such that the discharged effluent meets the effluent limitations established by Appendix III and Appendix IV of the RGP Application. A schematic of the proposed dewatering treatment system is shown on Figure 3. The completed Notice of Intent for the Remediation General Permit form is included as Appendix A.

ARE/ND/CR Longwood LLC requests to be listed on the Permit as the Owner and Derenzo requests to be listed on the Permit as the Operator. Discharge of treated water is scheduled to begin as early as May 7, 2012, pending authorization from the EPA and other agencies.

Thank you for your consideration of this NOI/Permit. Please feel free to contact us if you wish to discuss the information contained in this application, or if any additional information is needed.

Very truly yours,

J. DERENZO COMPANY

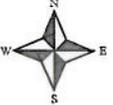


Peter Burch  
*Project Manager*

encl. Figure 1 – Locus Plan  
Figure 2 – Location of Proposed Excavation  
Figure 3 – Proposed Groundwater Treatment Schematic  
Appendix A – Notice of Intent Form  
Appendix B – Analytical Data  
Appendix C – Dilution Calculations  
Appendix D – Federal Correspondence  
Appendix E – National Register of Historic Places  
Appendix F – Best Management Practices Plan

cc: City of Boston Health Department

## FIGURES



NOTES:  
 Base map taken from "Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs"  
 7.5 minute USGS Quadrangle Maps:  
 BOSTON SOUTH, MA, REV: 1987

Drawn By: R.HIRTLE  
 Designed By: J.COLBY  
 Reviewed By: K.STETSON  
 Project No: 2849.01  
 Date: APRIL 2012

SCALE: 1:25,000

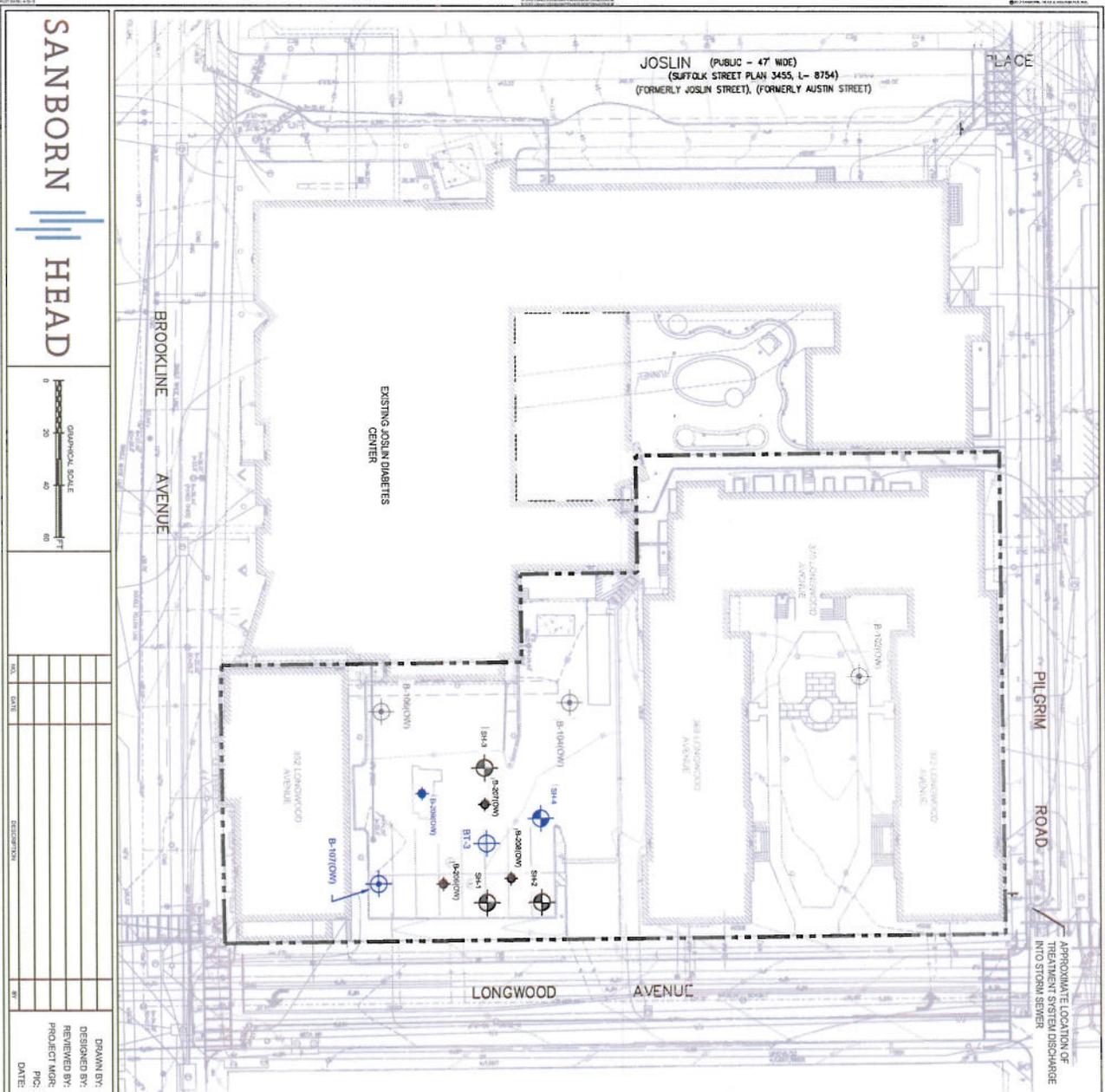


FIGURE 1

LOCUS PLAN

NOTICE OF INTENT FOR  
 REMEDIATION GENERAL PERMIT

LONGWOOD CENTER  
 BOSTON, MASSACHUSETTS



**JOSLIN (PUBLIC - 47' WIDE)**  
(SUFFOLK STREET PLAN 3455, L- 8754)  
(FORMERLY JOSLIN STREET), (FORMERLY AUSTIN STREET)

**EXISTING JOSLIN DIABETES CENTER**

**APPROXIMATE LOCATION OF TREATMENT SYSTEM DISCHARGE INTO STORM SEWER**

**LONGWOOD AVENUE**

**PILGRIM ROAD**

**BROOKLINE AVENUE**

**302 LONGWOOD AVENUE**

**301 LONGWOOD AVENUE**

**300 LONGWOOD AVENUE**

**299 LONGWOOD AVENUE**

**298 LONGWOOD AVENUE**

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**1 LONGWOOD AVENUE**

**NOTES:**

1. THE BASE MAP WAS DRAWN FROM AN UNDATED, EXISTING CONDITIONS PLAN OF LAND... PREPARED BY WANSSE HANSEN BRUSTLIN, INC. (WBH) OF WATERTOWN, MASSACHUSETTS, DATED JANUARY 31, 2008. ORIGINAL SCALE: 1" = 20'.
2. THE LOCATIONS OF EXPLORATIONS COMPLETED UNDER THE OPERATION OF SANBORN HEAD & ASSOCIATES, INC. (SANBORN HEAD) WERE DETERMINED BY SANBORN HEAD USING TAPE MEASUREMENTS FROM PERMANENT SITE FEATURES. THE LOCATIONS SHOULD BE CONSIDERED APPROXIMATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
3. THE LOCATIONS OF EXPLORATIONS COMPLETED BY OTHERS WERE TAKEN FROM PREVIOUS REPORTS AND PLANS PREPARED BY OTHERS AND SHOULD BE CONSIDERED APPROXIMATE.
4. MONITORING WELL B-1020(W) WAS INSTALLED BY GUILD DRILLING CO. OF EAST PROVIDENCE, RHODE ISLAND AND OBSERVED BY HALEY & ALDRICH, INC. (H&A) OF BOSTON, MASSACHUSETTS ON JULY 6 AND 7, 1998.
5. MONITORING WELLS B-1020(W) THROUGH B-1070(W) WERE INSTALLED BY NEW HAMPSHIRE BORING OF LONDON/DERRY, NEW HAMPSHIRE AND OBSERVED BY H&A BETWEEN JUNE AND JULY 2005.
6. MONITORING WELLS SH-1 THROUGH SH-4 WERE INSTALLED BY TECHNICAL DRILLING SERVICES, INC. OF STERLING, MASSACHUSETTS AND OBSERVED BY SANBORN HEAD ON AUGUST 1, 2005.
7. MONITORING WELLS B-2090(W) THROUGH B-2095(W) WERE INSTALLED BY CAROLINE CORPORATION OF MEDFORD, MASSACHUSETTS AND OBSERVED BY APHILAL ASSOCIATES, INC. (APHILAL) OF CAMBRIDGE, MASSACHUSETTS ON AUGUST 6 AND 7, 2007.
8. BLUE MONITORING WELLS ARE THOSE USED FOR UPPER ROP DRINKWATER SAMPLING. GREY MONITORING WELLS ARE NO LONGER IN USE DUE TO CONSTRUCTION ACTIVITIES.

**LEGEND:**

- B-1020(W) APPROXIMATE LOCATION AND DESIGNATION OF MONITORING WELL COMPLETED BY H&A IN JULY 1998
- B-1040(W) APPROXIMATE LOCATION AND DESIGNATION OF MONITORING WELLS COMPLETED BY H&A IN JUNE & JULY 2005
- SH-1 APPROXIMATE LOCATION AND DESIGNATION OF MONITORING WELLS COMPLETED BY SANBORN HEAD IN AUGUST 2005
- B-2070(W) APPROXIMATE LOCATION AND DESIGNATION OF MONITORING WELLS COMPLETED BY APHILAL IN AUGUST 2007
- APPROXIMATE REDEVELOPMENT SITE BOUNDARY AND LIMIT OF EXCAVATION

**APPROXIMATE LOCATION OF TREATMENT SYSTEM DISCHARGE INTO STORM SEWER**

**PROJECT NUMBER**  
2849.01

**NOTICE OF INTENT FOR REMEDIATION GENERAL PERMIT**  
LONGWOOD CENTER  
BOSTON, MASSACHUSETTS

**LOCATION OF PROPOSED EXCAVATION**

**SHEET NUMBER**  
2

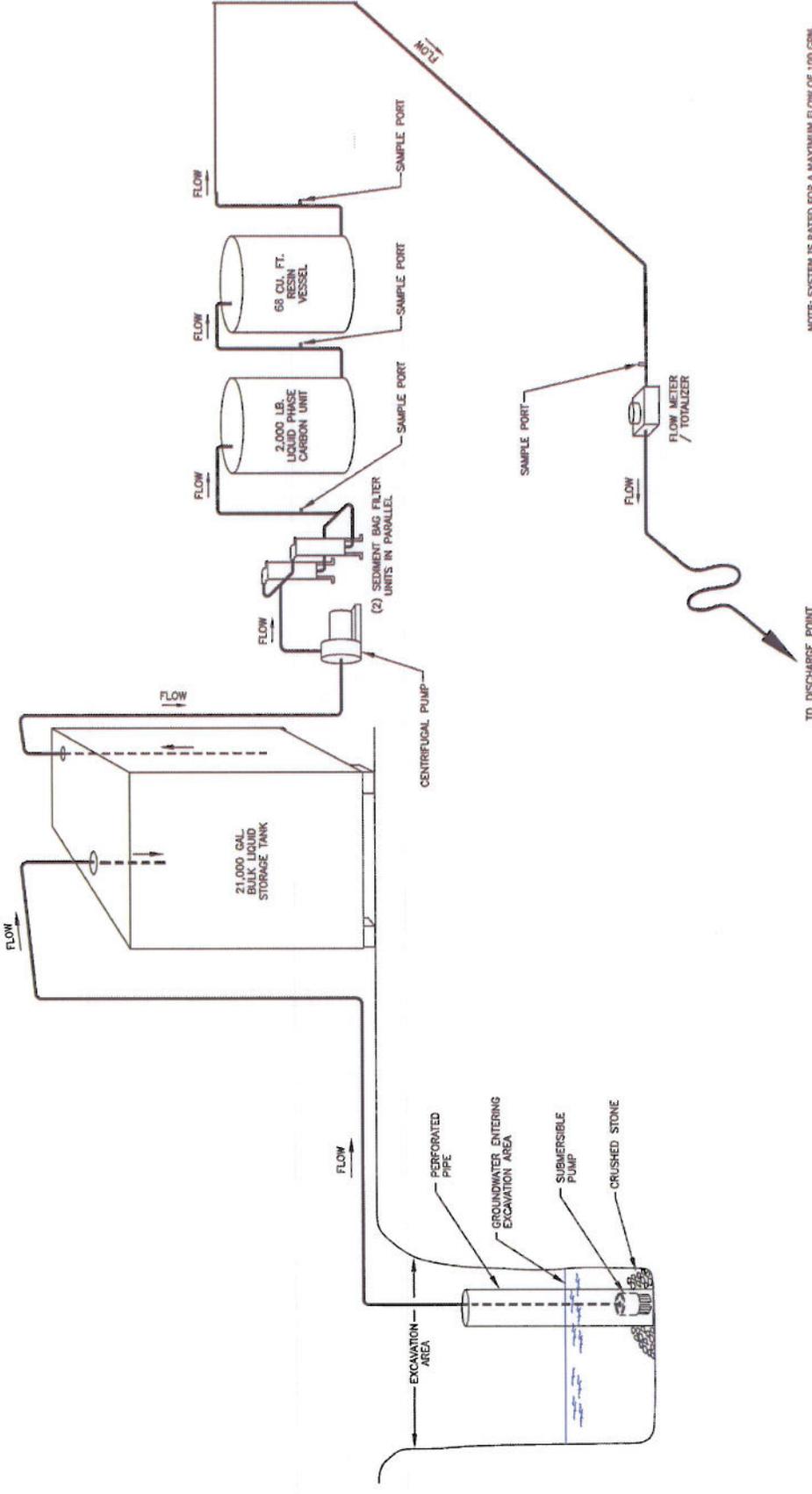
**DRAWN BY:** R.HIRTE  
**DESIGNED BY:** J.COLEBY  
**REVIEWED BY:** M.DIBILLATO  
**PROJECT MGR:** K.STEINSON  
**PIG:** M.DIBILLATO  
**DATE:** APRIL 2012

**GRAPHICAL SCALE**  
0 20 40 60 FT

**SANBORN HEAD**

**NOTES**

1. THE EXCAVATION DEWATERING PROCESS & INSTRUMENTATION DIAGRAM WAS PROVIDED TO SANBORN HEAD BY LRT LOCKWOOD REMEDIATION TECHNOLOGIES LLC, IN A PLAN TITLED "EXCAVATION DEWATERING PROCESS & INSTRUMENTATION DIAGRAM," DATED 11/16/11.



NOTE: SYSTEM IS RATED FOR A MAXIMUM FLOW OF 100 GPM.

PROJECT NUMBER  
2849.01  
SHEET NUMBER  
3

NOTICE OF INTENT FOR REMEDIATION GENERAL PERMIT  
LONGWOOD CENTER  
BOSTON, MASSACHUSETTS  
PROPOSED GROUNDWATER  
TREATMENT SCHEMATIC

DRAWN BY: R.HIRTLE  
DESIGNED BY: J.COOLEY  
REVIEWED BY: M.DIPLATO  
PROJECT MGR: K.STEINSON  
PIC: M.DIPLATO  
DATE: APRIL 2012

NO.	DATE	DESCRIPTION



**APPENDIX A**  
**NOTICE OF INTENT FORM**

**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: Longwood Center		<b>Facility/site mailing address:</b>	
Location of facility/site: longitude: -71.108097 latitude: 42.339062		Facility SIC code(s): N/A	Street: 1 Joslin Place, Boston, MA Mailing: 2310 Washington Street Newton Lower Falls, MA 02462
b) Name of facility/site owner: ARE/ND/CR Longwood LLC		Town: Boston	
Email address of facility/site owner: SClancy@NatDev.com		State: MA	Zip: 02215 County: Suffolk
Telephone no. of facility/site owner: (617) 527-9800			
Fax no. of facility/site owner: (617) 965-7361			
Address of owner (if different from site):		Owner is (check one): 1. Federal <input type="radio"/> 2. State/Tribal <input type="radio"/> 3. Private <input checked="" type="radio"/> 4. Other <input type="radio"/> if so, describe:	
Street: 2310 Washington Street			
Town: Newton Lower Falls	State: MA	Zip: 02462	County: Middlesex
c) Legal name of operator: J. Derenzo Company		Operator telephone no.: 617-212-4516 Operator fax no.: 508-427-6488 Operator email: jfolan@jderenzo.com	
Operator contact name and title: John Folan, site foreman			
Address of operator (if different from owner):		Street: 338 Howard Street	
Town: Brockton	State: MA	Zip: 02302	County: Plymouth

d) Check Y for "yes" or N for "no" for the following:

- Has a prior NPDES permit exclusion been granted for the discharge? Y  N , if Y, number:
- Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Y  N , if Y, date and tracking #:
- Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y  N
- 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:

- site identification # assigned by the state of NH or MA:
- permit or license # assigned:
- state agency contact information: name, location, and telephone number:

MassDEP Northeast Region  
 Wilmington, Massachusetts  
 (978) 694-3200

f) Is the site/facility covered by any other EPA permit, including:

- Multi-Sector General Permit? Y  N , if Y, number:
- Final Dewatering General Permit? Y  N , if Y, number:
- EPA Construction General Permit? Y  N , if Y, number:
- Individual NPDES permit? Y  N , if Y, number:
- 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 <input type="checkbox"/> B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) <input type="checkbox"/> C. Petroleum Sites with Additional Contamination <input type="checkbox"/>
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites <input type="checkbox"/> B. VOC Sites with Additional Contamination <input type="checkbox"/> C. Primarily Heavy Metal Sites <input type="checkbox"/>
III - Contaminated Construction Dewatering	A. General Urban Fill Sites <input checked="" type="checkbox"/> B. Known Contaminated Sites <input checked="" type="checkbox"/>

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

Temporary construction dewatering for redevelopment

b) Provide the following information about each discharge:

1) Number of discharge points: 1	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft <sup>3</sup> /s)? Max. flow <input type="text" value="0.223 cfs"/> Is maximum flow a design value? Y <input checked="" type="radio"/> N <input type="radio"/> Average flow (include units) <input type="text" value="0.112 cfs"/> Is average flow a design value or estimate? <input type="text" value="Estimate"/>
3) Latitude and longitude of each discharge within 100 feet: pt. 1: lat. <input type="text" value="42.350947"/> long. <input type="text" value="-71.097808"/> pt. 2: lat. <input type="text"/> long. <input type="text"/> pt. 3: lat. <input type="text"/> long. <input type="text"/> pt. 4: lat. <input type="text"/> long. <input type="text"/> pt. 5: lat. <input type="text"/> long. <input type="text"/> pt. 6: lat. <input type="text"/> long. <input type="text"/> pt. 7: lat. <input type="text"/> long. <input type="text"/> pt. 8: lat. <input type="text"/> long. <input type="text"/> etc.	
4) If hydrostatic testing, total volume of the discharge (gals): <input type="text" value="N/A"/>	5) Is the discharge intermittent <input checked="" type="radio"/> or seasonal <input type="radio"/> ? Is discharge ongoing? Y <input checked="" type="radio"/> N <input type="radio"/>
c) Expected dates of discharge (mm/dd/yy): start <input type="text" value="05/01/2012"/> end <input type="text" value="03/01/14"/>	
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).	

**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.

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
1. Total Suspended Solids (TSS)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	2540	2,500	310,000			
2. Total Residual Chlorine (TRC)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	4500CL-D	20	ND			
3. Total Petroleum Hydrocarbons (TPH)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	1664A	4000	ND			
4. Cyanide (CN)	57125	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	4500CN-CE	5	ND			
5. Benzene (B)	71432	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	0.50	ND			
6. Toluene (T)	108883	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	0.75	ND			
7. Ethylbenzene (E)	100414	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	0.50	ND			
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	2.0	ND			
9. Total BTEX <sup>2</sup>	n/a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	3.75	ND			
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) <sup>3</sup>	106934	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	504	0.010	ND			
11. Methyl-tert-Butyl Ether (MTBE)	1634044	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	1.0	ND			
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	10	ND			

\* 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.

<sup>2</sup> BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

<sup>3</sup> 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	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	2.0	ND			
14. Naphthalene	91203	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	ND			
15. Carbon Tetrachloride	56235	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	0.50	ND			
16. 1,2 Dichlorobenzene (o-DCB)	95501	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	2.5	ND			
17. 1,3 Dichlorobenzene (m-DCB)	541731	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	2.5	ND			
18. 1,4 Dichlorobenzene (p-DCB)	106467	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	2.5	ND			
18a. Total dichlorobenzene		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	7.5	ND			
19. 1,1 Dichloroethane (DCA)	75343	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	0.50	ND			
20. 1,2 Dichloroethane (DCA)	107062	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	0.50	ND			
21. 1,1 Dichloroethene (DCE)	75354	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	0.50	ND			
22. cis-1,2 Dichloroethene (DCE)	156592	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	0.50	ND			
23. Methylene Chloride	75092	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	3.0	ND			
24. Tetrachloroethene (PCE)	127184	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	0.50	ND			
25. 1,1,1 Trichloro-ethane (TCA)	71556	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	0.50	ND			
26. 1,1,2 Trichloro-ethane (TCA)	79005	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	0.75	ND			
27. Trichloroethene (TCE)	79016	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	0.50	ND			

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	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	1.0	ND			
29. Acetone	67641	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260B	5.0	ND			
30. 1,4 Dioxane	123911	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8260-SIM	3.0	ND			
31. Total Phenols	108952	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	420.1	150	ND			
32. Pentachlorophenol (PCP)	87865	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL-SIM	0.80	ND			
33. Total Phthalates (Phthalate esters) <sup>4</sup>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL	5.0	ND			
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL	3.0	ND			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	8270TCL-SIM	0.2	0.26			
a. Benzo(a) Anthracene	56553	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	ND			
b. Benzo(a) Pyrene	50328	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	ND			
c. Benzo(b)Fluoranthene	205992	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	0.26			
d. Benzo(k)Fluoranthene	207089	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	ND			
e. Chrysene	21801	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	ND			
f. Dibenzo(a,h)anthracene	53703	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	ND			
g. Indeno(1,2,3-cd) Pyrene	193395	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	ND			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	0.51			

<sup>4</sup> 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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	0.30			
i. Acenaphthylene	208968	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	ND			
j. Anthracene	120127	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	ND			
k. Benzo(ghi) Perylene	191242	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	ND			
l. Fluoranthene	206440	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	ND			
m. Fluorene	86737	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	ND			
n. Naphthalene	91203	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	ND			
o. Phenanthrene	85018	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	ND			
p. Pyrene	129000	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	8270TCL-SIM	0.20	0.21			
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	608	0.258	ND			
38. Chloride	16887006	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	CL-300	2,500	1,000,000			
39. Antimony	7440360	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	6020T	1.0	ND			
40. Arsenic	7440382	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	6020T	1.0	20			
41. Cadmium	7440439	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	6020T	0.4	1.2			
42. Chromium III (trivalent)	16065831	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	6020T	1.0	37.3			
43. Chromium VI (hexavalent)	18540299	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	3500	10	ND			
44. Copper	7440508	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	6020T	1.0	59.4			
45. Lead	7439921	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	6020T	1.0	1222			
46. Mercury	7439976	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	245.1	0.2	ND			
47. Nickel	7440020	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	6020T	1.0	36.1			
48. Selenium	7782492	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	6020T	2	5			
49. Silver	7440224	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Composite	6020T	0.8	ND			
50. Zinc	7440666	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	6020T	10	165.5			
51. Iron	7439896	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Composite	200.7	50	43,000			
Other (describe):		<input type="checkbox"/>	<input type="checkbox"/>								

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	mass (kg)
								concentration (ug/l)	concentration (ug/l)	mass (kg)
		<input type="checkbox"/>	<input type="checkbox"/>							
		<input type="checkbox"/>	<input type="checkbox"/>							

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

*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: Arsenic DF: 110 Metal: Nickel DF: 110  
 Metal: Cadmium DF: 110 Metal: Selenium DF: 110  
 Metal: Copper DF: 110 Metal: Zinc DF: 110  
 Metal: Iron DF: 110  
 Metal: Lead DF: 110

If yes, which metals?  
 Arsenic, Cadmium, Copper, Iron, Lead, Nickel, Selenium, Zinc

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:  
 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:

Groundwater encountered during construction activities will be pumped to a treatment system prior to discharge into a storm drain. The first element of the treatment system will be a fractionalization tank where solids will settle out. The effluent will then be passed through a bag filter followed by a granular activated carbon and ion exchange vessels. The effluent will then be discharged to the existing storm drain system.

b) Identify each applicable treatment unit (check all that apply):

Frac. tank <input checked="" type="checkbox"/>	Air stripper <input type="checkbox"/>	Oil/water separator <input type="checkbox"/>	Equalization tanks <input type="checkbox"/>	Bag filter <input checked="" type="checkbox"/>	GAC filter <input checked="" type="checkbox"/>
Chlorination <input type="checkbox"/>	De-chlorination <input type="checkbox"/>	Other (please describe): ion exchange vessels			

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  gpm Maximum flow rate of treatment system  gpm  
 Design flow rate of treatment system  gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):  
 None.

**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 <input type="checkbox"/>	Within facility (sewer) <input type="checkbox"/>	Storm drain <input checked="" type="checkbox"/>	Wetlands <input type="checkbox"/>	Other (describe): <input type="text"/>
------------------------------------	--	--	---	-----------------------------------	--

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:  
 Dewatering effluent will enter an existing storm drain adjacent to the site. Storm drain leads to Charles River in Boston, MA, via the existing storm drain system.

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:  
 1. For multiple discharges, number the discharges sequentially.  
 2. For indirect discharges, 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

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water  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)?  
 Charles River Segment MA72-38: Excess Algal Growth, Dissolved Oxygen, Phosphorous, Pesticides (DDT), PCBs, Oil & Grease, Temperature, Chlorophyll-a  
 Is there a final TMDL? Y  N  If yes, for which pollutant(s)? Phosphorous, Chlorophyll-a, Excess Algal Growth, Secchi disk transparency, nutrients, taste, odor

**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.

<p>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 <input checked="" type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E <input type="radio"/> F <input type="radio"/></p> <p>b) If you selected Criterion D or F, has consultation with the federal services been completed? Y <input type="radio"/> N <input type="radio"/> Underway <input type="radio"/></p> <p>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 <input checked="" type="radio"/> N <input type="radio"/></p> <p>d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.</p> <p>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 <input checked="" type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/></p> <p>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.</p>
--

**7. Supplemental information.**

<p>Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.</p> <p>Appendix B includes the analytical data for a sample collected by Sanborn, Head &amp; Associates, Inc. on November 29, 2011. Appendix C includes calculations for the 7Q10 flows and the dilution factor for metals. Appendix D includes information regarding Habitats of Rare Wildlife and correspondence from the National Oceanic and Atmospheric Administration and the US Fish and Wildlife Service. Appendix E includes a list of Historic Places in Boston Massachusetts. Appendix F includes the Best Management Practices Plan.</p>
--

**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:	Longwood Center
Operator signature:	
Printed Name & Title:	Peter Burch, Project Manager
Date:	4-12-12

**APPENDIX B**  
**ANALYTICAL DATA**

**Table 1**  
**Summary of Groundwater Quality Data**  
**NPDES Remediation General Permit**  
 Longwood Center  
 Boston, Massachusetts

Sample ID	Laboratory Analytical Method	Units	COMP-1	NPDES RGP Effluent Limit (2010)
Sample Date			11/29/11	
<b>General Parameters</b>				
Total Suspended Solids	TSS-2540	mg/l	310	30
Total Residual Chlorine <sup>1</sup>	TRC-4500CL-D	ug/l	<20	11
Total Cyanide	TCN-4500CN-CE	ug/l	<5	5.2
Total Phenols	TPHENOL-420.1	ug/l	<150	300
Total Petroleum Hydrocarbons (TPH)	TPH-1664A	mg/l	<4	5
Chloride	CL-300	mg/l	1,000	Monitor Only
<b>Total Metals</b>				
Antimony	SB-6020T	ug/l	<1.0	5.6
Arsenic	AS-6020T	ug/l	20	10
Cadmium	CD-6020T	ug/l	1.2	0.2
Chromium <sup>2</sup>	CR-6020T	ug/l	37.3	48.8
Hexavalent Chromium	HEXCR-3500	ug/l	<10	11.4
Copper	CU-6020T	ug/l	59.4	5.2
Iron	FE-200.7	ug/l	43,000	1,000
Lead	PB-6020T	ug/l	122.2	1.3
Mercury	HG-245.1	ug/l	<0.2	0.9
Nickel	NI-6020T	ug/l	36.1	29
Selenium	SE-6020T	ug/l	5	5.0
Silver	AG-6020T	ug/l	<0.8	1.2
Zinc	ZN-6020T	ug/l	165.5	66.6
<b>Pesticides</b>				
1,2-Dibromoethane (EDB) (Ethylene Dibromide)	504	ug/l	<0.010	0.05
<b>Volatile Organic Compounds (VOCs)</b>				
Methylene chloride (Dichloromethane) <sup>3</sup>	8260B	ug/l	<3.0	4.6
1,1-Dichloroethane (DCA)	8260B	ug/l	<0.75	70
Carbon tetrachloride	8260B	ug/l	<0.50	4.4
1,1,2-Trichloroethane (TCA)	8260B	ug/l	<0.75	5.0
Tetrachloroethene (PCE)	8260B	ug/l	<0.50	5.0
1,2-Dichloroethane (DCA)	8260B	ug/l	<0.50	5.0
1,1,1-Trichloroethane (TCA)	8260B	ug/l	<0.50	200
Benzene (B)	8260B	ug/l	<0.50	5.0
Toluene (T)	8260B	ug/l	<0.75	see Total BTEX
Ethylbenzene (E)	8260B	ug/l	<0.50	see Total BTEX
Vinyl chloride (Chloroethene)	8260B	ug/l	<1.0	2.0
1,1-Dichloroethene (DCE)	8260B	ug/l	<0.50	3.2
cis-1,2-Dichloroethene (DCE)	8260B	ug/l	<0.50	70
Trichloroethene (TCE)	8260B	ug/l	<0.50	5.0
1,2-Dichlorobenzene (o-DCB)	8260B	ug/l	<2.5	600
1,3-Dichlorobenzene (m-DCB)	8260B	ug/l	<2.5	320
1,4-Dichlorobenzene (p-DCB)	8260B	ug/l	<2.5	5.0
p/m-Xylene	8260B	ug/l	<1.0	see Total BTEX
o-xylene	8260B	ug/l	<1.0	see Total BTEX
Xylene (Total) (X)	8260B	ug/l	<2.0	see Total BTEX
Acetone	8260B	ug/l	<5.0	Monitor Only
Methyl tert butyl ether (MtBE)	8260B	ug/l	<1.0	70.0
1,4-Dioxane <sup>3</sup>	8260-SIM	ug/l	<3.0	Monitor Only
Tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	8260B	ug/l	<10	Monitor Only
Tertiary-Amyl Methyl Ether (TAME)	8260B	ug/l	<2.0	Monitor Only
Total BTEX <sup>4</sup>		ug/l	<3.75	100

**Table 1**  
**Summary of Groundwater Quality Data**  
**NPDES Remediation General Permit**  
 Longwood Center  
 Boston, Massachusetts

Sample ID	Laboratory Analytical Method	Units	COMP-1	NPDES RGP Effluent Limit (2010)
Sample Date			11/29/11	
<b>Semivolatile Organics (SVOCs)</b>				
Bis(2-Ethylhexyl)phthalate <sup>5</sup>	8270TCL	ug/l	<3.0	6.0
Butyl benzyl phthalate <sup>5</sup>	8270TCL	ug/l	<5.0	see Total Phthalates
Di-n-butylphthalate <sup>5</sup>	8270TCL	ug/l	<5.0	see Total Phthalates
Di-n-octylphthalate <sup>5</sup>	8270TCL	ug/l	<5.0	see Total Phthalates
Diethyl phthalate <sup>5</sup>	8270TCL	ug/l	<5.0	see Total Phthalates
Dimethyl phthalate <sup>5</sup>	8270TCL	ug/l	<5.0	see Total Phthalates
Total Phthalates (Phthalate esters) <sup>6</sup>		ug/l	<5.0	3.0
Acenaphthene <sup>7</sup>	8270TCL-SIM	ug/l	0.30	see Total Group II PAHs
Fluoranthene <sup>7</sup>	8270TCL-SIM	ug/l	<0.20	see Total Group II PAHs
Naphthalene <sup>7</sup>	8270TCL-SIM	ug/l	<0.20	20
Benzo(a)anthracene <sup>8</sup>	8270TCL-SIM	ug/l	<0.20	0.2
Benzo(a)pyrene <sup>8</sup>	8270TCL-SIM	ug/l	<0.20	0.2
Benzo(b)fluoranthene <sup>8</sup>	8270TCL-SIM	ug/l	0.26	0.2
Benzo(k)fluoranthene <sup>8</sup>	8270TCL-SIM	ug/l	<0.20	0.2
Chrysene <sup>8</sup>	8270TCL-SIM	ug/l	<0.20	0.2
Acenaphthylene <sup>7</sup>	8270TCL-SIM	ug/l	<0.20	see Total Group II PAHs
Anthracene <sup>7</sup>	8270TCL-SIM	ug/l	<0.20	see Total Group II PAHs
Benzo(ghi)perylene <sup>7</sup>	8270TCL-SIM	ug/l	<0.20	see Total Group II PAHs
Fluorene <sup>7</sup>	8270TCL-SIM	ug/l	<0.20	see Total Group II PAHs
Phenanthrene <sup>7</sup>	8270TCL-SIM	ug/l	<0.20	see Total Group II PAHs
Dibenzo(a,h)anthracene <sup>8</sup>	8270TCL-SIM	ug/l	<0.20	0.2
Indeno(1,2,3-cd)Pyrene <sup>8</sup>	8270TCL-SIM	ug/l	<0.20	0.2
Pyrene <sup>7</sup>	8270TCL-SIM	ug/l	0.21	see Total Group II PAHs
Pentachlorophenol (PCP)	8270TCL-SIM	ug/l	<0.80	1.0
Total Group I Polycyclic Aromatic Hydrocarbons (PAH) <sup>9</sup>		ug/l	0.26	10.0
Total Group II Polycyclic Aromatic Hydrocarbons (PAH) <sup>10</sup>		ug/l	0.51	100
<b>Polychlorinated Biphenyls (PCBs)</b>				
Aroclor 1016 <sup>11</sup>	PCB-608	ug/l	<0.258	0.5
Aroclor 1221 <sup>11</sup>	PCB-608	ug/l	<0.258	0.5
Aroclor 1232 <sup>11</sup>	PCB-608	ug/l	<0.258	0.5
Aroclor 1242 <sup>11</sup>	PCB-608	ug/l	<0.258	0.5
Aroclor 1248 <sup>11</sup>	PCB-608	ug/l	<0.258	0.5
Aroclor 1254 <sup>11</sup>	PCB-608	ug/l	<0.258	0.5
Aroclor 1260 <sup>11</sup>	PCB-608	ug/l	<0.258	0.5
Total PCBs <sup>12</sup>		ug/l	<0.258	0.5

Notes:

- The Laboratory Reporting Limit (RL) meets the requirements of Appendix VI of the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) even though RL exceeds RGP Effluent Limit.
- Hexavalent chromium was not detected above RL. As such, total chromium concentration was compared to the trivalent chromium effluent limit.
- RL achieved by laboratory was above the RL required in Appendix VI of the RGP and above the Effluent Limit. Please see attached correspondence between EPA and laboratory regarding analytical requirements.
- Total BTEX = Sum of benzene, toluene, ethylbenzene, and total xylenes.
- Individual phthalate compound.
- "Total phthalates" is the sum of individual phthalate compounds; According to RGP Q&A #37, the RL for total phthalates is the highest reported phthalate RL; RL is less than the requirements in Appendix VI of RGP, even though RL exceeds RGP Effluent Limit.
- Group II PAHs.
- Group I PAHs; Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level of the test method used as listed in Appendix VI (i.e. 0.20 ug/l for Method 8270 SIM).
- Sum of Group I PAHs.
- Sum of Group II PAHs.
- Individual PCB congener.
- Total of PCB congeners; Although the maximum value for total PCB's is 0.000064 ug/l, the compliance limit is equal to the minimum level of the test method used as listed in Appendix VI (i.e. 0.5 ug/l for Method 608).
- 'SHADED' values indicate exceedences of the NPDES RGP Effluent Limits; which were taken from Appendix III of the RGP.
- '<' = analytes not detected above laboratory reporting limits
- 'NS' = Not Specified
- Sample was collected by Sanborn, Head & Associates, Inc. (Sanborn Head) on the date shown and submitted to Alpha Analytical, Inc. of Westborough, Massachusetts for analysis.
- Monitor Only means that the subject compound is not subject to a (criteria) limit, however, the the Permittee is still required to monitor and report the effluent concentration.

**APPENDIX C**  
**DILUTION CALCULATIONS**

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## PURPOSE:

To calculate the dilution factor (DF) for metal concentrations in a potential discharge from on-site construction dewatering activities.

## METHOD:

$$DF = (Q_d + Q_s) / Q_d$$

Where:

DF = Dilution Factor

$Q_d$  = Maximum flow rate of the discharge in cubic feet per second (cfs)

$Q_s$  = Receiving water 7Q10 flow (cfs) where 7Q10 is the minimum flow (cfs) for 7 consecutive days with a recurrence interval of 10 years

## GIVEN:

1.0 gpm = 0.00223 cfs

$Q_d$  = 100 gpm from the system = 0.223 cfs

$Q_s$  = 24.7 cfs of flow in the Charles River [Reference 1]

## CALCULATION:

$$DF = (0.223 \text{ cfs} + 24.7 \text{ cfs}) / 0.223 \text{ cfs}$$
$$DF = \underline{112}$$

## RESULTS:

The resulting dilution factor to be used when discharging to the Charles River is greater than 100 and will be taken as equal to 110.

## REFERENCES:

[1] USGS StreamStats for Massachusetts. [Http://streamstatsags.cr.usgs.gov/ma\\_ssdefault.aspx](http://streamstatsags.cr.usgs.gov/ma_ssdefault.aspx).  
(Refer to Attachment A)



## Massachusetts StreamStats

### Streamstats Ungaged Site Report

Date: Thu Jan 19 2012 15:58:31 Mountain Standard Time

Site Location: Massachusetts

NAD27 Latitude: 42.3528 (42 21 10)

NAD27 Longitude: -71.0998 (-71 05 59)

NAD83 Latitude: 42.3529 (42 21 10)

NAD83 Longitude: -71.0993 (-71 05 57)

ReachCode: 01090001000111

Measure: 21.92

Drainage Area: 283 mi<sup>2</sup>

Low Flows Basin Characteristics			
100% Statewide Low Flow (283 mi <sup>2</sup> )			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	283 (above max value 149)	1.61	149
Mean Basin Slope from 250K DEM (percent)	2.33	0.32	24.6
Stratified Drift per Stream Length (square mile per mile)	0.23	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 (283 mi <sup>2</sup> )			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	283 (above max value 1.99)	0.01	1.99
Percent Underlain By Sand And Gravel (percent)	47.88	0	100
Percent Forest (percent)	42.02	0	100
Massachusetts Region (dimensionless)	0	0	1

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

Low Flows Streamflow Statistics					
Statistic	Flow (ft <sup>3</sup> /s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
D50	303				
D60	250				
D70	172				

D75	140				
D80	110				
D85	88				
D90	68.6				
D95	46.3				
D98	30.9				
D99	25.7				
M7D2Y	49.6				
AUGD50	94.3				
M7D10Y	24.7				

The equation for estimating the probability of perennial flow is applicable for most areas of Massachusetts except eastern Buzzards Bay, Cape Cod, and the Island regions. The estimate obtained from the equation assumes natural flow conditions at the site. The equation also is best used for sites with drainage areas between 0.01 to 1.99 mi<sup>2</sup>, as errors beyond for basins beyond these bounds are unknown.

<b>Probability of Perennial Flow Statistics</b>		
<b>Statistic</b>	<b>Value</b>	<b>Standard Error (percent)</b>
PROBPEREN	1	



# Massachusetts StreamStats

- Results ▾
- Map Contents ▾
- Navigation ▾
- Overview ▾



Policies and Notices

**FOIA**

U.S. Department of the Interior | U.S. Geological Survey

URL: [http://streamstats.cr.usgs.gov/ma\\_ss/default.aspx](http://streamstats.cr.usgs.gov/ma_ss/default.aspx)

Page Contact Information: StreamStats Help

Page Last Modified: 01/19/2012 17:54:53

[Streamstats Status](#)

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**APPENDIX D**  
**FEDERAL CORRESPONDENCE**



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

New England Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5087  
<http://www.fws.gov/newengland>

January 3, 2011

To Whom It May Concern:

This project was reviewed for the presence of federally-listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

(<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm>)

Based on the information currently available, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service (Service) are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under section 7 of the Endangered Species Act is not required.

This concludes the review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Mr. Anthony Tur of this office at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman  
Supervisor  
New England Field Office



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
NORTHEAST REGION  
55 Great Republic Drive  
Gloucester, MA 01930-2276

FEB - 3 2012

Kevin P. Stetson, P.E.  
Sanborn, Head, & Associates, Inc.  
1 Technology Park Drive  
Westford, MA 01886

Re: NPDES Permit in Boston, MA

Dear Mr. Stetson,

In your letter, dated January 24, 2012, you requested information about the presence of species listed by NOAA's National Marine Fisheries Service (NMFS) under the Endangered Species Act (ESA), in the Charles River in Boston, MA. You are currently preparing an application for a construction dewatering project that will be submitted to the Environmental Protection Agency (EPA) for inclusion under their Remediation General Permit. We offer the following comments.

There are several species of federally-listed whales and sea turtles that occur seasonally in waters off the Massachusetts coast, and populations of the endangered shortnose sturgeon are known to occur in the Connecticut and Merrimack Rivers. Additionally, all five Distinct Population Segments (DPS) of Atlantic sturgeon (Gulf of Maine: threatened, New York Bight: endangered, Chesapeake Bay: endangered, Carolina: endangered, South Atlantic: endangered) may occur in the mouths of large river systems in MA and within coastal habitats. However, at this time no listed species are known to occur in the Charles River. As such, no further coordination with NMFS PRD is necessary. Should you have any questions regarding these comments, please contact Chris Vaccaro at (978)281-9167 or by email ([Christine.Vaccaro@noaa.gov](mailto:Christine.Vaccaro@noaa.gov)).

Sincerely,

*ru* Mary A. Colligan  
Assistant Regional Administrator  
for Protected Resources



**APPENDIX E**

**NATIONAL REGISTER OF HISTORIC PLACES**

**Appendix E**  
**National Register of Historic Places**  
**Research Documentation**  
**Longwood Center, Boston, Massachusetts**

Site Name	Address	Date Listed
Abbotsford	300 Walnut Ave.	9/16/1987
Adams-Nervine Asylum	990-1020 Centre St.	6/1/1982
African Meetinghouse	8 Smith St.	10/7/1971
All Saints' Church	211 Ashmont St.	6/16/1980
Allston Congregational Church	31-41 Quint Ave.	11/7/1997
Ames Building	1 Court St.	4/26/1974
Appleton, Nathan, Residence	39-40 Beacon St.	12/22/1977
Arlington Street Church	Arlington and Boylston Sts.	5/4/1973
Armory of the First Corps of Cadets	97-105 Arlington St. and 130 Columbus Ave.	5/22/1973
Arnold Arboretum	22 Divinity Ave.	10/15/1966
Austin, Francis B., House	58 High St.	10/21/1988
Ayer, Frederick, Mansion	395 Commonwealth Avenue	4/5/2005
Back Bay Historic District	Roughly bounded by the Charles River, Arlington, Providence, Boylston and Newbury Sts., and Charlesgate East	8/14/1973
Baker Congregational Church	760 Saratoga St.	11/19/1998
Baker, Sarah J., School	33 Perrin St.	7/7/1983
Beach-Knapp District	Roughly bounded by Harrison Ave., Washington, Kneeland, and Beach Sts.	12/9/1980
Beacon Hill Historic District	Bounded by Beacon St, the Charles River Embankment, and Pinckney, Revere, and Hancock Sts.	10/15/1966
Bedford Building	89-103 Bedford St.	8/21/1979
Bellevue Standpipe	On Bellevue Hill at Washington St. and Roxbury Pkwy.	1/18/1990
Benedict Fenwick School	150 Magnolia St.	2/11/2004
Bennington Street Burying Ground	Bennington St., bet. Swift and harmony Sts.	5/22/2002
Berger Factory	37 Williams St.	4/9/1980
Bigelow School	350 W. 4th St.	2/21/1985
Blackstone Block Historic District	Area bound by Union, Hanover, Blackstone, and North Sts.	5/26/1973
Blake, James, House	735 Columbia Rd.	5/1/1974
Boston African American National Historic Site	Museum of Afro American History, Dudley Station, Box 5	10/10/1980
Boston Athenaeum	10 1/2 Beacon St.	10/15/1966
Boston Common	Beacon, Park, Tremont, Boylston, and Charles St.	2/27/1987
Boston Common and Public Garden	Beacon, Park, Tremont, Boylston, and Arlington Sts.	7/12/1972
Boston Consumptives Hospital	249 River St.	2/7/2002

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Site Name	Address	Date Listed
Boston Edison Electric Illuminating Company	25-39 Boylston St.	12/9/1980
Boston Light	Little Brewster Island, Boston Harbor	10/15/1966
Boston National Historical Park	Inner harbor at mouth of Charles River	10/26/1974
Boston Naval Shipyard	E of Chelsea St, Charlestown	11/15/1966
Boston Public Garden	Beacon, Charles, Boylston, and Arlington Sts.	2/27/1987
Boston Public Library	Copley Sq.	5/6/1973
Boston Transit Commission Building	15 Beacon St.	8/31/2007
Boston Young Men's Christian Association	312-320 Huntington Ave.	8/20/1998
Boston Young Men's Christian Union	48 Boylston St.	12/9/1980
Bowditch School	80--82 Greene St.	8/3/1990
Boylston Building	2-22 Boylston St.	12/9/1980
Brighton Center Historic District	Academy Hill R., Chestnut Hill Ave., Dighton, Elko, Henshaw, Leicester, Market, Washington, and Winship Sts.	2/20/2001
Brighton Evangelical Congregational Church	404-410 Washington St.	8/21/1997
Brook Farm	670 Baker St.	10/15/1966
Building at 138--142 Portland Street	138--142 Portland St.	9/5/1985
Bulfinch Triangle Historic District	Roughly bounded by Canal, Market, Merrimac, and Causeway Sts.	2/27/1986
Bunker Hill Monument	Breed's Hill	10/15/1966
Bunker Hill School	65 Baldwin St.	10/15/1987
Calf Pasture Pumping Station Complex	435 Mount Vernon St.	8/2/1990
Cathedral of St. George Historic District	517-523-525 E. Broadway	11/25/1998
Charles Playhouse	74-78 Warenton St.	6/16/1980
Charles Street African Methodist Episcopal Church	551 Warren St.	9/1/1983
Charlestown Heights	Roughly bounded by St. Martin, Bunker Hill, Medford, and Sackville Sts.	1/8/1998
Chestnut Hill Reservoir Historic District	Beacon St. and Commonwealth Ave.	1/18/1990
Christ Church	1220 River Rd.	1/30/1986
Church Green Buildings Historic District	101-113 Summer St.	12/30/1999
Clapp Houses	199 and 195 Boston St.	5/2/1974
Codman Building	55 Kilby St.	10/19/1983
Codman Square District	Norfolk, Talbot, Epping, Lithgow, Centre, and Moultrie Sts.	6/23/1983
Collins Building	213-217 Washington St.	6/8/2005

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**Longwood Center, Boston, Massachusetts**

Site Name	Address	Date Listed
Compton Building	159, 161-175 Devonshire St., 18-20 Arch St.	12/31/2008
Congregation Adath Jeshurun	397 Blue Hill Ave.	11/12/1999
Congress Street Fire Station	344 Congress St.	9/3/1987
Copp's Hill Burial Ground	Charter, Snowhill, and Hull Sts.	4/18/1974
Copp's Hill Terrace	Between Commercial and Charter Sts. W of Jackson Place	4/19/1990
Crowninshield House	164 Marlborough St.	2/23/1972
Custom House District	Between J.F.K. Expwy. and Kirby St. and S. Market and High and Battery March Sts.	5/11/1973
Cyclorama Building	543-547 Tremont St.	4/13/1973
Dearborn School	25 Ambrose St.	8/2/2000
Dill Building	11-25 Stuart St.	12/9/1980
Dillaway School	16-20 Kenilworth St.	4/9/1980
Dimock Community Health Center Complex	41 and 55 Dimock St.	2/21/1985
District 13 Police Station	28 Seaverns Ave.	2/10/1988
Dorchester Heights National Historic Site	South Boston	10/15/1966
Dorchester North Burying Ground	Stroughton St. and Columbia Rd.	4/18/1974
Dorchester Park	Bounded by Dorchester Ave., Richmond, Adams & Richview Sts.	2/20/2008
Dorchester Pottery Works	101-105 Victory Rd.	2/21/1985
Dorchester Temple Baptist Church	670 Washington St.	1/16/1998
Dorchester--Milton Lower Mills Industrial District	Both sides of Neponset River	4/2/1980
Dorchester--Milton Lower Mills Industrial District (Boundary Increase)	Roughly: Adams, River, Medway Sts., Millers Lane, Eliot and Adams Sts.	4/6/2001
Douglass, Frederick, Square Historic District	Roughly bounded by Hammond St., Cobat St., Windsor St., and Westminster St., Lower Roxbury	10/3/1996
Dudley Station Historic District	Washington, Warren, and Dudley Sts.	12/5/1985
Eagle Hill Historic District	Roughly bounded by Border, Lexington, Trenton, and Falcon Sts.	2/26/1998
East Boston High School, Old	127 Marion St.	3/15/2006
Eliot Burying Ground	Eustis and Washington Sts.	6/25/1974
Eliot Congregational Church	56 Dale St., corner 118--120 Walnut St.	2/9/1994
Eliot Hall	7A Eliot St.	7/15/1988
Engine House No. 34	444 Western Ave.	10/24/1985

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Site Name	Address	Date Listed
Ether Dome, Massachusetts General Hospital	Fruit St.	10/15/1966
Evergreen Cemetery	2060 Commonwealth Ave.	8/14/2009
Fairview Cemetery	45 Fairview Ave.	9/16/2009
Faneuil Hall	Dock Sq.	10/15/1966
Faneuil, Peter, School	60 Joy St.	12/16/1994
Fenway Studios	30 Ipswich St.	9/13/1978
Fenway-Boylston Street District	Fenway, Boylston, Westland, and Hemenway Sts.	9/4/1984
Fields Corner Municipal Building	1 Arcadia St., 195 Adams St.	11/12/1981
Filene's Department Store	426 Washington St.	7/24/1986
First Baptist Church	Commonwealth Ave. and Clarendon St.	2/23/1972
First Church of Jamaica Plain	6 Eliot St.	7/15/1988
First Congregational Church of Hyde Park	6 Webster St.	11/12/1999
Forest Hills Cemetery	95 Forest Hills Ave.	11/17/2004
Fort Independence	Castle Island	10/15/1970
Fort Point Channel Historic District	Necco Court, Thomson Place, A, Binford, Congress, Farnsworth, Melcher, Midway, Sleeper, Stillings, Summer Sts.	9/10/2004
Frances and Isabella Apartments	430-432 and 434-436 Dudley St.	2/22/2002
Fulton-Commercial Streets District	Fulton, Commercial, Mercantile, Lewis, and Richmond Sts.	3/21/1973
Fulton-Commercial Streets Historic District (Boundary Increase)	81-95 Richmond St.	3/3/2000
Gardner, Isabella Stewart, Museum	280 The Fenway	1/27/1983
Garrison, William Lloyd, House	125 Highland St.	10/15/1966
Garrison, William Lloyd, School	20 Hutchings St.	4/16/1980
Gibson House	137 Beacon St.	8/7/2001
Goldsmith Block	41 Ruggles St., 746-750 Shawmut Ave.	6/5/2007
Goodwin, Ozias, House	7 Jackson Ave.	6/23/1988
Greek Orthodox Cathedral of New England	520 Parker St.	6/30/1988
Greenwood Memorial United Methodist Church	378A-380 Washington St.	3/8/2002
Haifenreffer Brewery	Germania St.	5/2/1982
Hale, Edward Everett, House	12 Morley St.	3/21/1979
Harding, Chester, House	16 Beacon St.	10/15/1966
Harrison Square Historic District	Bounded by MBTA Braintree line embankment, Park, Everett, Freeport, Mill, Asland, Blanche Sts., Victory Rd.	10/22/2002

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Site Name	Address	Date Listed
Harriswood Crescent	60--88 Harold St.	3/13/1986
Harvard Avenue Fire Station	16 Harvard Ave.	3/31/1983
Harvard Avenue Historic District	Roughly bounded by Linden St, Commonwealth Ave, Harvard Ave, and Park Vale Ave.	4/28/2000
Harvard Stadium	60 N. Harvard St.	2/27/1987
Haskell, Edward H., Home for Nurses	220 Fisher Ave., 63 Parker Hill Ave.	2/26/2004
Hayden Building	681-683 Washington St.	12/9/1980
Headquarters House	55 Beacon St.	10/15/1966
Hibernian Hall	182-186 Dudley St.	6/2/2004
Highland Spring Brewery Bottling and Storage Buildings	154-166 Terrace St	5/28/2010
Home for Aged Couples	409, 419 Walnut Ave. and 2055 Columbus Ave.	8/11/2005
House at 1 Bay Street	1 Bay St.	2/9/1994
House at 17 Cranston Street	17 Cranston St.	11/20/1987
Howe, Samuel Gridley and Julia Ward, House	13 Chestnut St.	9/13/1974
Hoxie, Timothy, House	135 Hillside St.	11/20/1987
International Trust Company Building	39-47 Milk St.	9/10/1979
John Eliot Square District	John Eliot Sq.	4/23/1973
Joshua Bates School	731 Harrison Ave.	8/22/2008
King's Chapel	Tremont and School Sts.	5/2/1974
Kittredge, Alvah, House	12 Linwood St.	5/8/1973
Lawrence Model Lodging Houses	79, 89, 99 and 109 E. Canton St.	9/22/1983
Leather District	Roughly bounded by Atlantic Ave., Kneeland, Lincoln, and Essex Sts.	12/21/1983
Liberty Tree District	Roughly bounded by Harrison Ave., Washington, Essex and Beach Sts.	12/9/1980
Locke--Ober Restaurant	3--4 Winter Pl.	7/24/1986
Long Island Head Light	Long Island	6/15/1987
Long Wharf and Customhouse Block	Foot of State St.	11/13/1966
Loring, Harrison, House	789 E. Broadway St.	9/1/1983
Loring-Greenough House	12 South St.	4/26/1972
Lower Roxbury Historic District	Roughly, area surrounding Coventry, Cunard, and Walpole Sts.	12/9/1994
LUNA (tugboat)	NDC Pier, Charles River	10/6/1983
Mariner's House	11 North Square	11/12/1999

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Site Name	Address	Date Listed
Massachusetts General Hospital	Fruit Street	12/30/1970
Massachusetts Historical Society Building	1154 Boylston St.	10/15/1966
Massachusetts Mental Health Center	74 Fenwood Rd.	1/21/1994
Massachusetts School of Art	364 Brookline Ave.	8/3/1989
Massachusetts Statehouse	Beacon Hill	10/15/1966
McKay, Donald, House	78-80 White St.	6/2/1982
Metropolitan Theatre	252-272 Tremont St.	12/9/1980
Mission Hill Triangle Historic District	Roughly bounded by Smith St., Worthington St., Tremont St., and Huntington Ave.	11/6/1989
Monument Square Historic District	Monument Sq.	6/2/1987
Monument Square Historic District	Roughly bounded by Jamaica Way, Pond, Centre and Eliot Sts.	10/11/1990
Moreland Street Historic District	Roughly bounded by Kearsarge, Blue Hill Aves., Warren, Waverly, and Winthrop Sts.	3/29/1984
Morton Street, Metropolitan Park System of Greater Boston	Morton St.	1/24/2005
Mount Hope Cemetery	355 Walk Hill St.	9/24/2009
Mount Pleasant Historic District	Roughly bounded by Forest St. and Mount Pleasant Ave.	2/9/1989
Nazing Court Apartments	224-236 Seaver St. and 1-8 Nazing Court	5/12/2004
Nell, William C., House	3 Smith Ct.	5/11/1976
Neponset Valley Parkway, Metropolitan Park System of Greater Boston	Neponset Valley Parkway	1/24/2005
New England Conservatory of Music	290 Huntington Ave.	5/14/1980
New Riding Club	52 Hemenway St.	8/20/1987
Newspaper Row	322-328 Washington St., 5-23 Milk St., and 11 Hawley St.	7/7/1983
Nix's Mate Daybeacon	Nubble Channel, The Narrows, Boston Harbor	3/18/2004
North Terminal Garage	600 Commercial St.	9/11/1997
Oak Square School	35 Nonantum St.	11/10/1980
Ohabei Shalom Cemetery	147 Wordsworth St.	8/19/2008
Old City Hall	School and Providence Sts.	12/30/1970
Old Corner Bookstore	NW corner of Washington and School Sts.	4/11/1973
Old Harbor Reservation Parkways, Metropolitan Park System of Greater Boston	William J. Day Blvd., Columbia Rd. between Farragut Rd and Kosciuszko Cir., Old Colony Ave. between Pacuska Ave.	7/24/2008
Old North Church	193 Salem St.	10/15/1966
Old South Church in Boston	645 Boylston St.	12/30/1970

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Site Name	Address	Date Listed
Old South Meetinghouse	Milk and Washington Sts.	10/15/1966
Old State House	Washington and State Sts.	10/15/1966
Old West Church	131 Cambridge St.	12/30/1970
Otis, (First) Harrison Gray, House	141 Cambridge St.	12/30/1970
Otis, (Second) Harrison Gray, House	85 Mt. Vernon St.	7/27/1973
Paine Furniture Building	75-81 Arlington St.	9/12/2002
Park Street District	Tremont, Park, and Beacon Sts.	5/1/1974
Parkman, Francis, House	50 Chestnut St.	10/15/1966
Peabody, The	195-197 Ashmont St.	8/8/2001
Phipps Street Burying Ground	Phipps St.	5/14/1974
Piano Row District	Boston Common, Park Sq., Boylston Pl. and Tremont St.	12/9/1980
Pierce House	24 Oakton Ave.	4/26/1974
Pierce-Hichborn House	29 North Sq.	11/24/1968
Publicity Building	40-44 Bromfield St.	8/20/2003
Quincy Market	S. Market St.	11/13/1966
Revere, Paul, House	19 North Sq.	10/15/1966
Richardson Block	113--151 Pearl and 109--119 High Sts.	8/9/1986
Riviera, The	270 Huntington Ave.	12/7/1995
Roslindale Baptist Church	52 Cummins Hwy.	11/5/1998
Roughan Hall	15-18 City Sq.	4/15/1982
Roxbury High Fort	Beech Glen St. at Fort Ave.	4/23/1973
Roxbury Highlands Historic District	Roughly bounded by Dudley St., Washington St., and Columbus Ave.	2/22/1989
Roxbury Presbyterian Church	328 Warren St.	3/15/1991
Russia Wharf Buildings	518-540 Atlantic Ave., 270 Congress St. and 276-290 Congress St.	12/2/1980
Saint Augustine Chapel and Cemetery	Dorchester St. between W. Sixth and Tudor Sts.	9/18/1987
Savin Hill Historic District	Roughly bounded by Savin Hill Ave., Morrissey Blvd., Dorchester Bay, and I-93	5/9/2003
Sears' Crescent and Sears' Block	38--68 and 70--72 Cornhill	8/9/1986
Sears Roebuck and Company Mail Order Store	309 Park Dr. and 201 Brookline Ave.	1/15/1991
Sears, David, House	42 Beacon St.	12/30/1970
Second Brazer Building	25--29 State St.	7/24/1986

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Site Name	Address	Date Listed
Shubert, Sam S., Theatre	263-265 Tremont St.	12/9/1980
South Boston Boat Clubs Historic District	1793-1849 William J. Day Blvd.	9/1/2005
South End District	South Bay area between Huntington and Harrison Aves.	5/8/1973
South Station Headhouse	Atlantic Ave. and Summer St.	2/13/1975
St. Joseph's Roman Catholic Church Complex	Bounded by Circuit, Regent, Hulbert, and Fenwick Sts.	12/28/1989
St. Luke's and St. Margaret's Church	5-7 St. Luke's Rd.	11/12/1997
St. Mary's Episcopal Church	14-16 Cushing Ave.	10/30/1998
St. Paul's Church	136 Tremont St.	12/30/1970
St. Stephen's Church	Hanover St. between Clark and Harris Sts.	4/14/1975
Stearns, R. H., House	140 Tremont St.	6/16/1980
Stony Brook Reservation Parkways, Metropolitan Park System of Great Boston MPS	Dedham, Enneking, Turtle Pond Parkways, Smith Field, Reservation, W. Border Rds.	1/3/2006
Students House	96 The Fenway	9/11/1997
Suffolk County Courthouse	Pemberton Sq.	5/8/1974
Suffolk County Jail	215 Charles St.	4/23/1980
Summer Hill Historic District	Roughly bounded by Seaverns Ave., Everett St., Carolina Ave., & Newbern St.	10/22/1987
Summer, Charles, House	20 Hancock St.	11/7/1973
Symphony and Horticultural Halls	Massachusetts and Huntington Aves.	5/30/1975
Symphony Hall	301 Massachusetts Avenue	1/20/1999
Temple Place Historic District	11--55, 26--58 Temple Pl.	7/26/1988
Textile District	Roughly, Essex St. from Phillips Sq. to Columbia St. and Chauncy St. from Phillips Sq. to Rowe Pl.	11/29/1990
Town Hill District	Bounded roughly by Rutherford Ave. and Main and Warren Sts.	5/11/1973
Tremont Street Subway	Beneath Tremont, Boylston, and Washington Sts.	10/15/1966
Trinity Church	Copley Sq.	7/1/1970
Trinity Neighborhood House	406 Meridian St.	4/14/1992
Trinity Rectory	Clarendon and Newbury Sts.	2/23/1972
Truman Parkway--Metropolitan Park System of Greater Boston	Truman Parkway	1/5/2005
U.S.S. CONSTITUTION	Boston Naval Shipyard	10/15/1966
Union Oyster House	41-43 Union Street	5/27/2003
Union Wharf	295-353 Commercial St.	6/22/1980
United Shoe Machinery Corporation Building	138-164 Federal St.	8/19/1980

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**Longwood Center, Boston, Massachusetts**

Site Name	Address	Date Listed
Upham's Corner Market	600 Columbia Rd.	10/11/1990
USS CASSIN YOUNG (destroyer)	Charlestown Navy Yard	1/14/1986
Vermont Building	6-12 Thacher St.	11/13/1984
VFW Parkway, Metropolitan Park System of Greater Boston	VFW Parkway, bet. Spring And Centre Sts.	1/5/2005
Washington Street Theatre District	511-559 Washington St.	3/19/1979
West Street District	West St.	12/9/1980
Wigglesworth Building	89-83 Franklin St.	10/21/1982
Wilbur Theatre	244-250 Tremont St.	12/9/1980
Winthrop Building	7 Water St.	4/18/1974
Wirth, Jacob, Buildings	31-39 Stuart St.	12/9/1980
Woodbourne Historic District	Roughly bounded by Walk Hill, Goodway, and Wachusett Sts.	6/4/1999
Youth's Companion Building	209 Columbus Ave.	5/2/1974
YWCA Boston	140 Clarendon St.	3/3/2004
Boston Harbor Islands Archeological District	Address Restricted	12/21/1985
Fort Warren	Georges Island, Boston Harbor	8/29/1970
Trotter, William Monroe, House	97 Sawyer Ave.	5/11/1976
Church of Christ	265 Beech St.	11/13/1984
Immaculate Conception Rectory	108 Beach St.	2/11/2002
Revere Beach Reservation	Revere Beach Boulevard, Eliot Circle to Northern Circle	5/27/2003
Revere Beach Reservation Historic District	Roughly bounded by Eliot Circle, Revere Beach Blvd., Northern Circle, and Atlantic Ocean	7/15/1998
Ronan, Mary, T., School	154 Bradstreet Ave.	12/10/1982
Rumney Marsh Burying Ground	Butler St. at Elm and Bixby Sts.	2/11/2004
Slade Spice Mill	770 Revere Beach Parkway	6/30/1972
Winthrop Parkway, Metropolitan Parkway System of Greater Boston	Winthrop Parkway	1/21/2004

**APPENDIX F**

**BEST MANAGEMENT PRACTICES PLAN**

## **APPENDIX F**

### **BEST MANAGEMENT PRACTICES PLAN**

Notice of Intent for the Remediation General Permit  
Temporary Construction Dewatering at Longwood Center for  
Site Redevelopment  
Boston, Massachusetts

This Best Management Practices Plan (BMPP) has been prepared in accordance with the requirements of the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) for Massachusetts (MAG910000). This BMPP is in support of an RGP application for dewatering during redevelopment construction of Longwood Center (1 Joslin Place) in Boston, Massachusetts. The dewatering discharge will be conveyed through the existing storm drains and discharged to the Charles River in Boston, MA.

The following practices will be adhered to during construction dewatering at the site.

#### **Site Security**

During construction activities, the dewatering system will be secured using standard construction practices. The fractionalization tank and associated filters, pumps and flow meters will be located in a fenced area or otherwise secured to limit access. All associated piping will be secured and checked regularly. Any system failure, vandalism, or other incidents will be addressed in a timely manner to prevent the discharge of oil or hazardous materials from exceeding the limits of the RGP.

#### **Minimizing Sediment in Influent**

Crushed stone sumps constructed as far as possible from the active excavation area will be used as the suction points for the dewatering system intakes. Efforts will be made to manage the pumping such that the amount of sediment in the influent to the treatment system is minimized.

#### **Management of Generated Wastes**

Excavations will be conducted within the limits of a Massachusetts Contingency Plan (MCP) release site. As such the wastes that are generated during the operation of the dewatering treatment system will be managed as MCP wastes. The anticipated wastes are sediment that accumulates in the fractionalization tank, used bag filters, spent activated carbon, spent resin and miscellaneous wastes associated with water quality sampling activities.

The sediment will be tested and disposed of at a licensed facility that is permitted to accept material with the documented physical and chemical characteristics of the sediment. The used bag filters and the miscellaneous sampling wastes will be appropriately disposed of as solid or contaminated wastes, based on their characteristics. The spent activated carbon and spent resin will be processed and recycled by the company providing the media.

## **Prohibition of Discharge Exceeding Design Flow**

The subcontractor providing the treatment system will provide the Operator with information on the design capacity of the treatment system and the features included in the design to monitor the flow rate to ensure that the capacity is not exceeded. The system will be monitored with a continuous flow meter such that the overall system flow does not exceed the lowest design capacity of an individual treatment system unit.

## **Preventative Maintenance Required**

The treatment system will likely include two bag filters installed in parallel so the system does not need to be shut down for bag filter changeout, one activated carbon unit and one resin vessel. Each vessel will be equipped with gauges and sampling points to allow for measurement of pressure drop across the vessel and sampling of influent and effluent streams. The bag filters will be replaced whenever the pressure drop across the filters exceeds the system's design criteria. The carbon vessel and resin vessel will be backwashed when the pressure drop across the vessel exceeds the system's design criteria. If systemic sampling data indicates that "breakthrough" has occurred, the media in the carbon or resin vessel will be changed out and replaced. The subcontractor will be responsible for developing and implementing a preventative maintenance plan and schedule based on the specific design of the treatment system.

## **Employee Training**

The field staff of the Operator and the subcontractor will be instructed regarding the water quality limits contained in the RGP and the critical need to operate the treatment system as designed. The staff will also be provided guidance on how to reduce the sediment content that is pumped into the treatment system. Personnel who have responsibilities related to the dewatering efforts will be informed of the contents of the RGP, this BMPP and the NOI.

## **Management of Run-on and Runoff**

Hay bales and silt fences as well as sloped grades will be used as needed to construct a berm around the perimeter of the site to prevent rainfall from migrating off-site or into the excavation. If stockpiles of soil are generated, the stockpiles of contaminated soils will be placed on plastic sheets and then covered with sheeting and bermed with hay bales until off-site transport occurs.

## **Erosion, Scouring and Sediment Control**

Considering the design flow of the system and the planned duration of the discharge relative to the size and flow of the storm drain where it discharges to the Charles River, it is not anticipated that the dewatering discharge will cause erosion, stream scouring at the discharge point, or additional sedimentation in the Charles River.

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