



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

CERTIFIED MAIL RETURN RECEIPT REQUESTED

APR 10 2013

David Walker
Senior Project Manager
Parcel 24 North LLC
75 State Street, 12th Floor
Boston, MA 02109

Re: Authorization to discharge under the Remediation General Permit (RGP) –
MAG910000. Parcel 24 site located at Hudson Street/Kneeland Street, Boston, MA
02134, Suffolk County; Authorization # MAG910570

Dear Mr. Walker:

Based on the review of a Notice of Intent (NOI) submitted on behalf of the MA Department of Transportation Highway Division by the firm McPhail Associates, 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 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 that exceeded 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 established in Appendix VI of the RGP.

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. With the absence of dilution of freshwater into tidal water,



संस्कृत विभाग, स्वास्थ्य विभाग, भारत सरकार
नई दिल्ली-110002
दिनांक: 10 अप्रैल 2013

प्रति सम्बन्धित अधिकारी, स्वास्थ्य विभाग, भारत सरकार

10 अप्रैल 2013

विषय: स्वास्थ्य विभाग, भारत सरकार
संदर्भ: स्वास्थ्य विभाग, भारत सरकार
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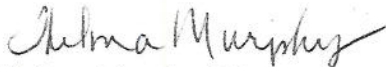
EPA determined that the Dilution Factor Range (DFR) for each parameter for this site is in the one and five (1-5) range. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the limits for antimony of 5.6ug/L, arsenic of 36 ug/L, cadmium of 8.9 ug/L, trivalent chromium of 100 ug/L, hexavalent chromium of 50.3 ug/L, copper of 3.7 ug/L, lead of 8.5 ug/L, nickel of 8.2 ug/L, selenium of 71 ug/L, silver of 2.2 ug/L, zinc of 85.6 ug/L and iron of 1,000 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 June 5, 2015. 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: Robert Kubit, MassDEP
Paul Canavan, BWSC
William J. Burns, McPhail Associates, LLC.

**2010 Remediation General Permit
Summary of Monitoring Parameters^[1]**

NPDES Authorization Number:		MAG910570
Authorization Issued:	April, 2013	
Facility/Site Name:	Parcel 24	
Facility/Site Address:	Hudson Street/Kneeland St., Boston, MA 02134, Suffolk County	
	Email address of owner: Not Provided	
Legal Name of Operator:	Parcel 24 North LLC	
Operator contact name, title, and Address:	David Walker, Senior Project Manager, 75 State Street, Boston, MA 02109. Suffolk County	
	Email: dwalker@newbostonfund.com	
Estimated date of Project Completion :	June 5, 2015.	
Category and Sub-Category:	Category III. Contaminated Construction Dewatering. Sub-category B. Known Contaminated Sites	
RGP Termination Date:	September 10, 2015	
Receiving Water:	Boston Harbor	

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#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

	<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)
✓	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) ⁴	100 ug/L/ Me#8260C/ ML 2ug/L
✓	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 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

	<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)
✓	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
✓	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/ML 5ug/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/ML 5ug/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

<u>Metal parameter</u>	<u>Total Recoverable Metal Limit @ H ¹⁰ = 50 mg/l CaCO3 for discharges in Massachusetts (ug/l) ^{11/12}</u>	<u>Minimum level=ML</u>
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		Saltwater	
✓	39. Antimony	5.6/ML 10	
✓	40. Arsenic **	36/ML 20	
✓	41. Cadmium **	8.9/ML 10	
✓	42. Chromium III (trivalent) **	100/ML 15	
✓	43. Chromium VI (hexavalent) **	50.3/ML 10	
✓	44. Copper **	3.7/ML 15	
✓	45. Lead **	8.5/ML 20	
	46. Mercury **	1.1/ML 0.2	
✓	47. Nickel **	8.2/ML 20	
✓	48. Selenium **	71/ML 20	
✓	49. Silver	2.2/ML 10	
✓	50. Zinc **	85.6/ML 15	
✓	51. Iron	1,000/ML 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 ¹³
✓	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab ¹³
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab ¹³
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab ¹⁴
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab ¹⁴
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab ¹⁴
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab ¹⁴
	61. Maximum Change in Temperature in MA - Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab ¹⁴
	62. Maximum Change in Temperature in MA - Any Class SA water body - Coastal	1.5°F; 1/Month/Grab ¹⁴
	63. Maximum Change in Temperature in MA - Any Class SB water body - July to September	1.5°F; 1/Month/Grab ¹⁴
	64. Maximum Change in Temperature in MA -Any Class SB water body - October to June	4°F; 1/Month/Grab ¹⁴

Footnotes:

¹ 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).

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 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 = $1,000 \times 2 = 2,000 \text{ ug/L}$, etc. not to exceed the DF=5.

¹² 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).

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

¹⁴ Temperature sampling per Method 170.1



**NOTICE OF INTENT FOR DISCHARGE
UNDER MASSACHUSETTS REMEDIAL
GENERAL PERMIT MAG910000**

PARCEL 24

BOSTON MASSACHUSETTS

to

U.S. Environmental Protection Agency
and
Massachusetts Department of
Environmental Protection

March 21, 2013

Project No. 4575



March 21, 2013

U.S Environmental Protection Agency
RGP-NOC Processing Municipal Assistance Unit (CMU)
1 Congress Street, Suite 1100
Boston, MA 02114-2023

Attention: RGP-NOC Processing

Reference: Parcel 24; Boston, Massachusetts
Notice of Intent for Construction Dewatering Discharge Under Massachusetts
Remedial General Discharge MAG910000

Ladies and Gentlemen:

The purpose of this letter report is to provide a summary of the site and groundwater quality information in support of an application for approval from the U.S. Environmental Protection Agency (EPA) for the temporary discharge of groundwater into the Fort Point Channel via the City of Boston storm drain system during construction at the above referenced site. Refer to **Figure 1** Project Location Plan for the general site locus.

These services were performed and this permit application was prepared with the authorization of Parcel 24 LLC. These services are subject to the limitations contained in **Appendix A**.

Existing Conditions

The Parcel 24 site is approximately 65,000 square-feet in plan area and is bounded by Kneeland Street to the north, the Albany Street ramp to the south and east, and by Hudson Street to the west. A series of access ramps for the Massachusetts Turnpike I-90/Interstate I-93 interchange are located along the eastern limits of Albany Street. It is understood that portions of the subject site were previously occupied by the former I-90/I-93 interchange structures including elevated roadways retained by bin walls, however, during construction of the new Central Artery/Tunnel Project (CA/T), roadways were relocated, bin walls were demolished and the site was used as a construction staging area. At the completion of the CA/T project, the site was regraded generally coincident with the grade of Hudson and Kneeland Streets and a soil berm was constructed against the Albany Street ramp overhang. Currently, the subject site is vacant and the ground surface across the site is grass-covered. Refer to **Figure 2**, Site Plan, for general site information.

Site and Regulatory History

In summary, available historical information indicates that the subject site was historically occupied by tidal flats across which wharfs formerly extended. Subsequently, this area of Boston was filled and new structures were built above the old wharfs. Structures understood to have previously occupied the site have included residential buildings, carpentry shops, iron shops, small mill construction and a chapel. In the early 1960's the structures were demolished and the J.F. Fitzgerald Expressway was constructed. The expressway was subsequently demolished in the early 2000's and replaced with the new Central Artery.

The current Massachusetts DEP database indicates that the subject site, identified as Chinatown Parcel 24, located at the corner of Kneeland and Hudson Streets is a DEP-listed MCP site. The subject site is listed with Release Tracking Number (RTN) 3-30586 due to releases of 2-methylnaphthalene, arsenic, barium and lead. The release of 2-methylnaphthalene was reported to the DEP on January 17, 2012.



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Furthermore, subsequent subsurface exploration programs and chemical testing was conducted by McPhail Associates, LLC during 2011 and 2012 for disposal characterization purposes. As a result of the chemical testing, concentrations of arsenic, barium and lead were detected in soil on the subject site in excess of the applicable RCS-1 reporting standards, and were added to the existing RTN as part of the MCP Phase I Initial Site Investigation Report and Tier II Classification that was submitted to the Massachusetts Department of Environmental Protection on January 23, 2013.

In addition, trace levels of asbestos have been detected in soil on the western portion of the subject site. The trace levels of asbestos have been reported to the DEP as a 2-hour release condition as discussed with MA DEP Northeast Regional Office. The asbestos release was reported to the DEP on January 15, 2013 and is listed under RTN 3-31337.

Proposed Development

It is understood that the Parcel 24 site is to be developed into a mixed-income community including residential, retail and parking space. The proposed development is planned to include the construction of a 22-story apartment building fronting onto Kneeland Street at the northern end of the site, which transitions to a 10-story mid-rise structure within the central portion of the site, which steps downward toward a terraced park. Three levels of below-grade parking are planned to underlie the mid-rise structure and a groundwater detention system will underlie the park. A 6-story low-rise building is planned to be constructed at the southern end of the site as part of a second phase of development.

The three levels of below-grade parking planned beneath mid-rise structure will occupy a footprint of approximately 14,100 square-feet. It is understood that the lowest level slab of the below-grade parking will be located approximately 30 feet below the existing ground surface.

Construction Dewatering

In order to permit construction of the three levels of below grade parking that is proposed beneath the mid-rise building and to provide an effective groundwater cut-off during construction, a continuously interlocking steel sheet pile wall will be installed just beyond the perimeter foundation walls of the building foundation and will be embedded into the relatively impervious marine clay deposit. In addition, a perimeter groundwater "seal" will be provided by constructing the perimeter foundations a minimum of 12-inches below the surface of the marine clay deposit underlying the site.

Excavation for the below grade parking levels will extend to a depth of approximately 20 feet below the observed groundwater level. Hence, construction dewatering will be required within the groundwater cut-off area to allow construction of the below-grade portion of the concrete slab and foundations. The majority of the anticipated dewatering will occur during bulk excavation following the installation of the groundwater cut-off. Additional minor dewatering may occur during installation of the lowest elevation concrete slab and footings.

It is estimated that the typical continuous groundwater discharge required during the initial stages of the excavation phase of the construction will be on the order of 35 to 100 gallons per minute (GPM). The quantity of groundwater discharge is based on the relatively pervious nature of the existing granular fill material and the presence of the sheet piling surrounding the excavation which will act as a groundwater cut-off. A reduction in the rate of discharge is anticipated to occur during excavation of the less permeable organic deposit. A rate of discharge of 20 to 50 GPM is envisioned during this stage of excavation. These estimates of discharge do not include surface runoff which will be removed from the excavation during a limited duration of a rain storm and shortly thereafter.



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As shown the **Figures 2 and 3A**, two separate 12-inch diameter dedicated storm drains exist at the southern portion of the subject site. Both storm drains flow east beneath Albany Street and the adjacent Interstate I-93 highway. Just beyond Interstate I-93, both storm drains converge into a single 36-diameter drain pipe which runs east to a pump station located near an off-ramp that connects to the I-90 Turnpike. From the pump station, a 16-inch and a 42-inch diameter storm drain are shown to run southeast beneath access ramps to Interstate I-93, Kneeland Street and the MBTA railroad tracks. Both storm drains eventually discharge into the Fort Point Channel through outfalls identified as SDO308 and SDO309. The Fort Point Channel is considered a Class SB water body. The storm drain flow pattern and location of discharge into the Fort Point Channel are shown on plans provided by the Boston Water & Sewer Commission which are included as **Figures 3A and 3B**.

Groundwater Treatment

A limited scope of groundwater testing, focusing on petroleum constituents and volatile organic compounds, has been performed at the subject site. The parameters for the groundwater analyses were based in part on the site history and concentrations of constituents detected in soil at the subject site. The results of groundwater testing have not indicated the presence of the constituents tested in excess of the RGP limits for discharge. However, as indicated above, the subject site is a DEP-listed release site due to Reportable Concentrations of 2-methylnaphthalene, arsenic, barium and lead that are present in soil. Given the scope of construction associated with redevelopment of the subject site, it is anticipated that soil particles impacted by these constituents will become suspended in the dewatered groundwater during excavation for the building foundation. As a result, the dewatered groundwater will require treatment prior to off-site discharge. Based upon the results of the soil and groundwater testing performed at the subject site in conjunction with the proposed scope of construction, it is our opinion that a settling tank and bag filters will be necessary to settle out particulate matter exhibiting elevated levels of 2-methylnaphthalene and metals in the water to meet the allowable discharge limits established by the US EPA prior to off-site discharge. Specifically, one settling tank, 5,000-gallon in capacity and two bag filters will be incorporated into the discharge system in series to meet allowable discharge limits for TSS, 2-methylnaphthalene, arsenic, barium and lead established by the RGP for discharge into a saltwater body. A schematic of the treatment system is shown on **Figure 4**.

To document the effectiveness of the treatment system, samples of the discharge water will be obtained and tested for the presence of TSS, 2-methylnaphthalene, arsenic, barium, and lead prior to the start of discharge into the storm drain system. Should the pre-start up testing indicate that the levels of these compounds in the effluent exceed the limits established under the RGP, additional treatment of the effluent will be implemented prior to initial discharge. In addition, should other contaminants be detected within the discharge water during the construction dewatering phase of the project at levels that exceed the effluent limitations, mitigative measures will be implemented to meet the allowable discharge limits.

In conclusion, it is our opinion that groundwater at the site is acceptable for discharge into the Fort Point Channel via the City of Boston storm drain system under a Remedial General Permit. Sampling and analysis of the effluent will be carried out in accordance with the terms of the Remedial General Permit.



US EPA
March 21, 2013
Page 4

Supplemental information appended to this letter in support of the RGP includes the following;

- Notice of Intent Transmittal Form for Permit Application (**Appendix B**)
- A summary of groundwater analysis (**Appendix C, Table 1 and Groundwater Monitoring Reports**);
- A review of Areas of Critical Concern and Endangered and Threatened Species (**Appendix D**);
- A review of National Historic Places (**Appendix E**); and
- Best Management Practice Plan (**Appendix F**)

We trust that the above satisfies your present requirements. Should you have any questions or comments concerning the above, please do not hesitate to contact us.

Very truly yours,

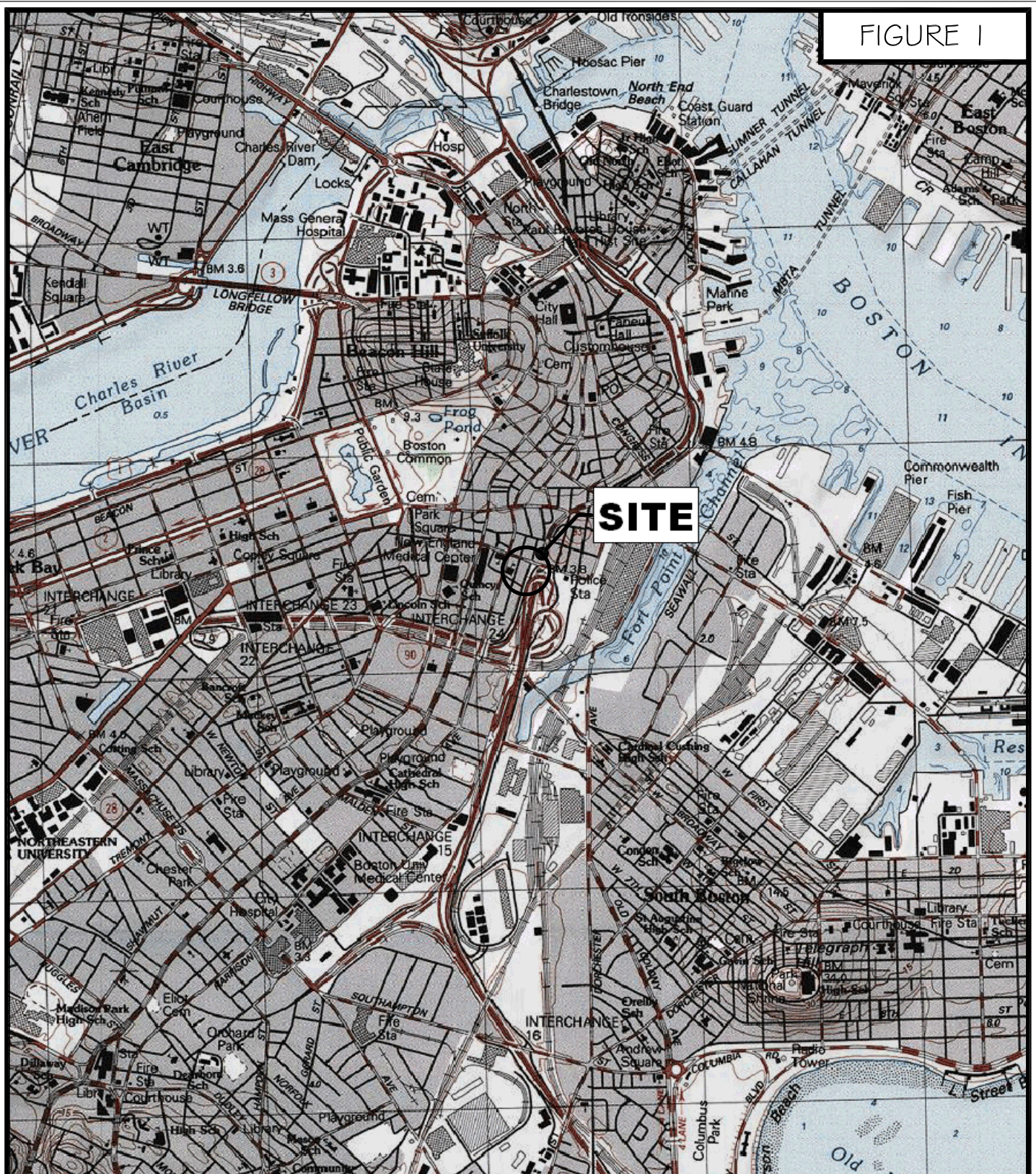
McPHAIL ASSOCIATES, LLC

William J. Burns

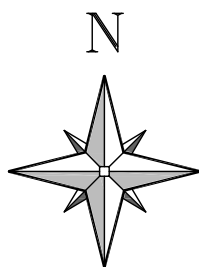
Peter J. DeChaves, L.S.P.
Enclosures

F:\WP5\REPORTS\4575 RGP.wpd
WJB/pjd

FIGURE I



McPHAIL ASSOCIATES, LLC
 Geotechnical and
 Geoenvironmental Engineers
 2269 Massachusetts Avenue
 Cambridge, MA 02140
 617/868-1420
 617/868-1423 (Fax)



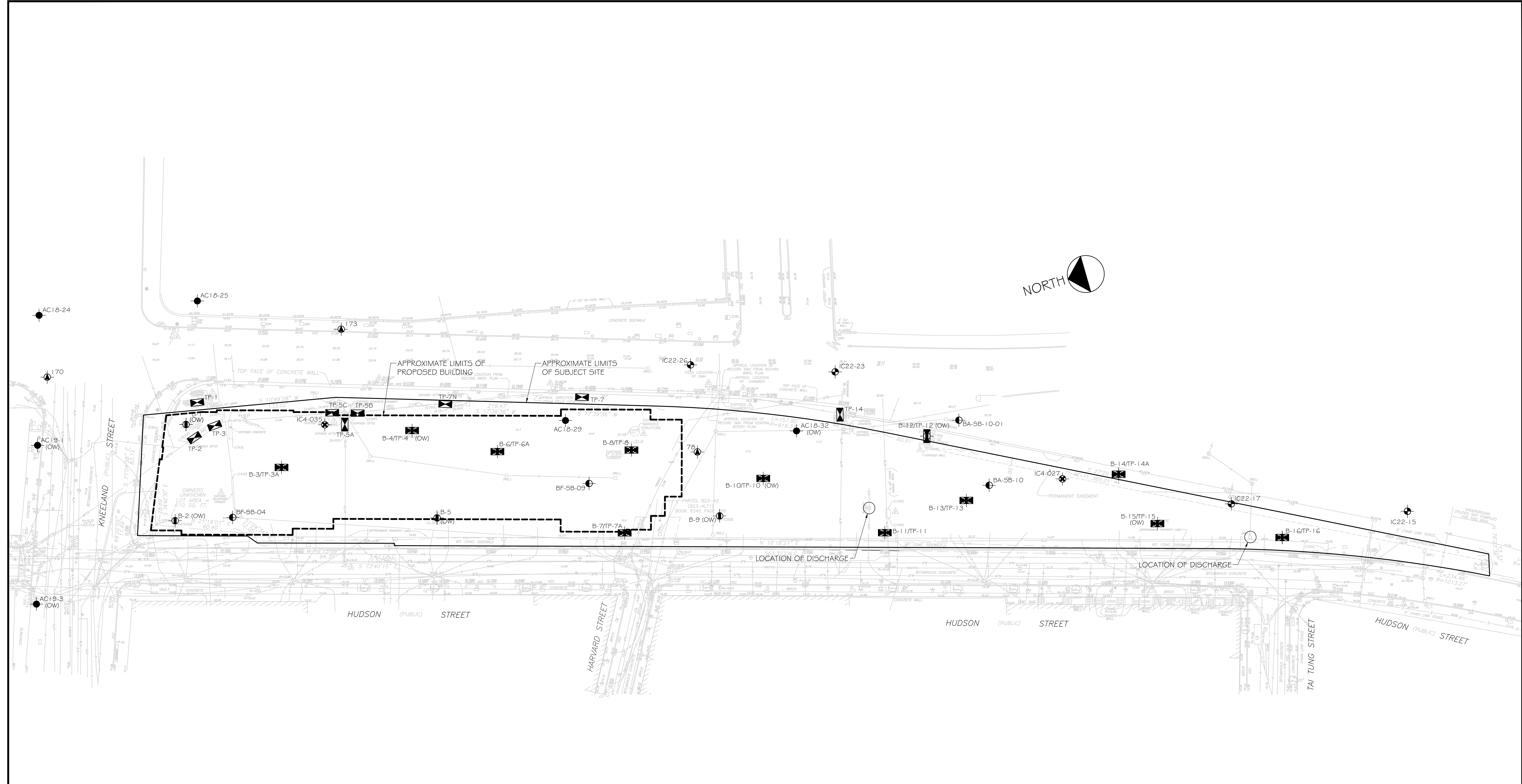
SCALE 1:25,000

PROJECT LOCATION PLAN

PARCEL 24

BOSTON

MASSACHUSETTS



LEGEND

- LOCATION OF TEST PIT PERFORMED BY L.M. HOLDINGS LLC FOR McPHAIL ASSOCIATES, INC. ON MAY 12 TO 29, 2008
- LOCATION OF BORING PERFORMED BY CARR-DEE CORP. FOR McPHAIL ASSOCIATES, INC. ON APRIL 14 TO 29, 2008 AND MAY 16 TO JUNE 3, 2008
- LOCATION OF BORING PERFORMED BY CAMP, DRESSER & McKEE, INC. FOR MASSACHUSETTS HIGHWAY DEPARTMENT DURING 1992 AND 1995
- LOCATION OF BORING PERFORMED BY BERGER / LOCHNER / STONE & WEBSTER FOR MASSACHUSETTS HIGHWAY DEPARTMENT DURING 1995
- LOCATION OF BORING PERFORMED BY GEI CONSULTANTS, INC. FOR MASSACHUSETTS HIGHWAY DEPARTMENT DURING 1991 AND 1994
- LOCATION OF BORING PERFORMED BY GZA GEOENVIRONMENTAL, INC. FOR MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS DURING 1991
- LOCATION OF BORING PERFORMED BY MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS DURING 1954 TO 1955
- (OW) — INDICATES OBSERVATION WELL INSTALLED WITHIN COMPLETED BORING

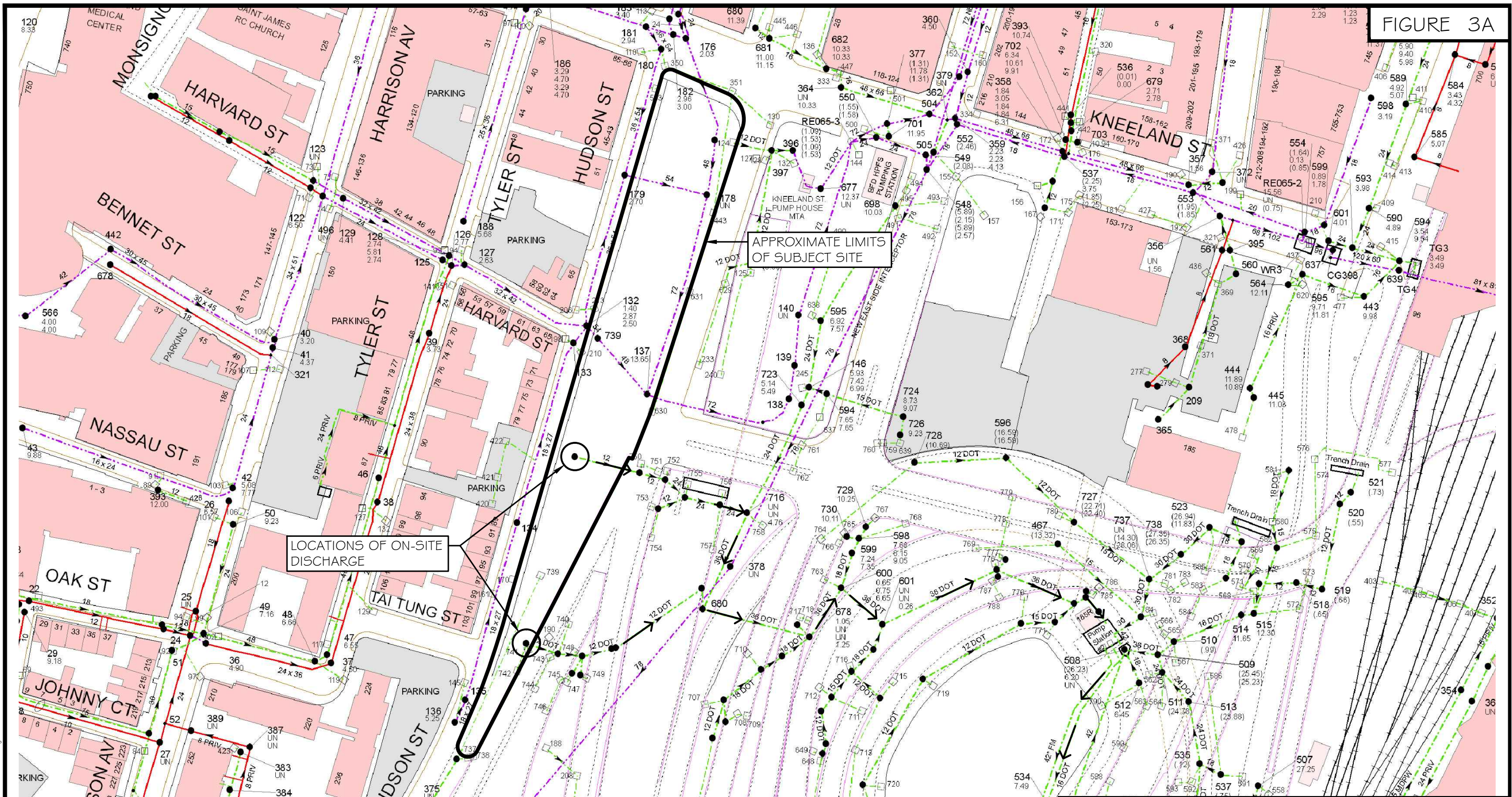
REFERENCE: THIS PLAN WAS PREPARED FROM A 20-SCALE DRAWING ENTITLED "EXISTING CONDITIONS PLAN OF LAND" DATED MAY 29, 2008 PREPARED BY FELDMAN PROFESSIONAL LAND SURVEYORS



McPHAIL ASSOCIATES, LLC
Geotechnical and
Geoenvironmental Engineers
2269 Massachusetts Avenue
Cambridge, MA 02140
617/868-1420
617/868-1423 (Fax)

PARCEL 24 - CHINATOWN			
BOSTON		MASSACHUSETTS	
SITE PLAN			
FOR			
PARCEL 24 LLC			
BY			
McPHAIL ASSOCIATES, LLC			
Date:	JANUARY 2013	Dwn: M.B.S.	Chkd: A.D.A.
Project No:	4575	Scale: 1" = 30'	
			FIGURE 2

FIGURE 3A



LOCATIONS OF ON-SITE
DISCHARGE

APPROXIMATE LIMITS
OF SUBJECT SITE

LEGEND

← — INDICATES DIRECTION OF FLOW

GRAPHIC SCALE



REFERENCE: CITY OF BOSTON ON-LINE WATER AND SEWER ATLAS DATABASE.



Geotechnical and
Geoenvironmental Engineers
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Cambridge, MA 02140
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617/868-1423 (Fax)

PARCEL 24

BOSTON

MASSACHUSETTS

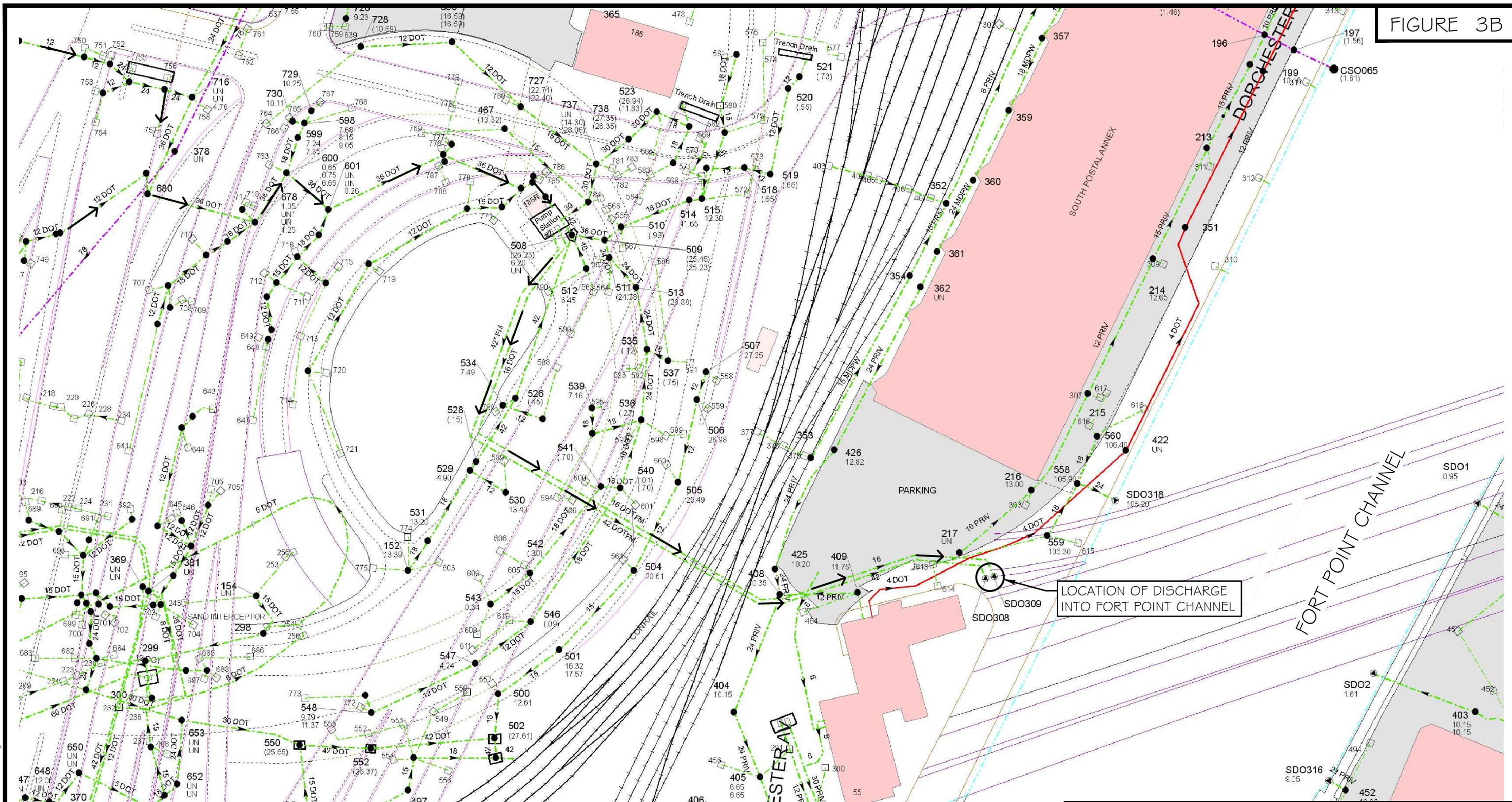
STORM DRAIN DISCHARGE FLOW PLAN

FOR
PARCEL 24, LLC

BY
McPHAIL ASSOCIATES, LLC

Date: JANUARY 2013	Dwn: I.J.M.	Chkd: W.J.B.	Scale: 1" = 120'
Project No:	4575		

FIGURE 3B



LEGEND

← — INDICATES DIRECTION OF FLOW

GRAPHIC SCALE



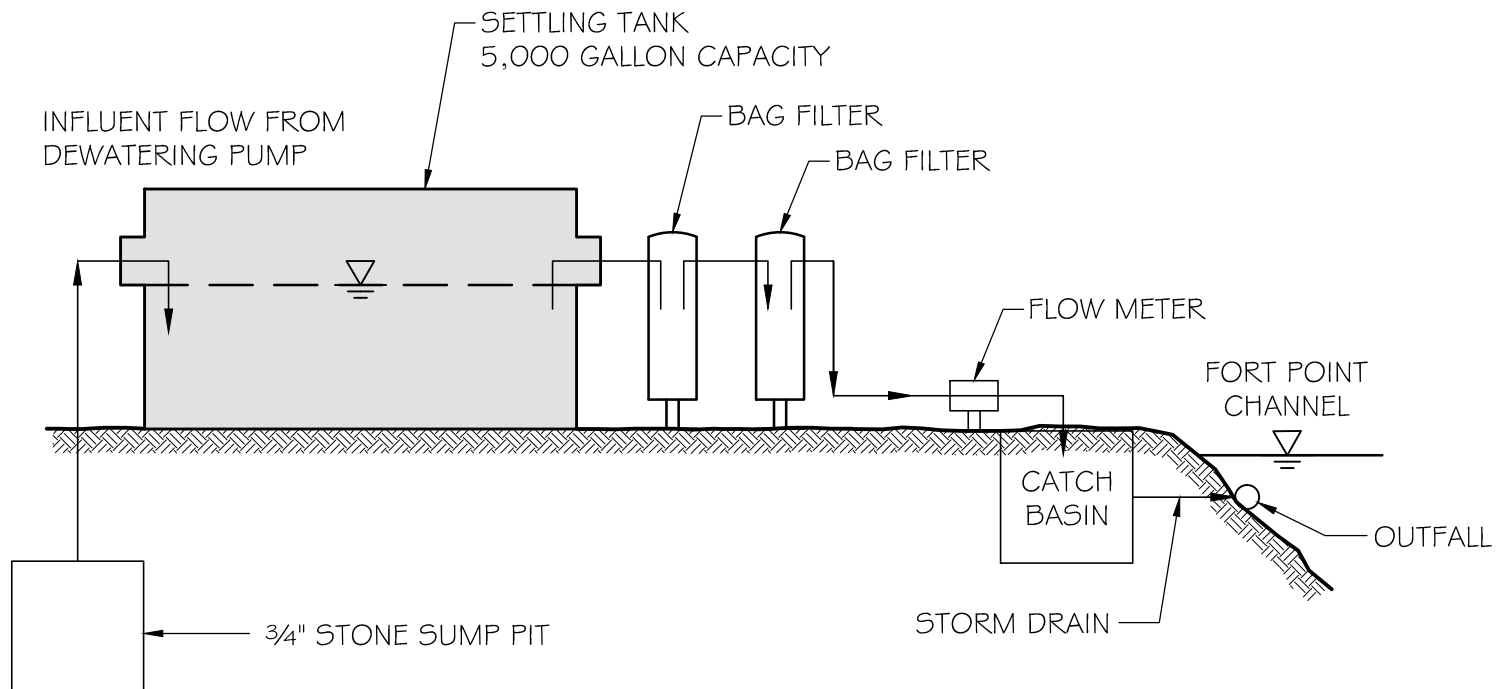
REFERENCE: CITY OF BOSTON ON-LINE WATER AND SEWER ATLAS DATABASE.

McPHAIL ASSOCIATES, LLC
Geotechnical and
Geoenvironmental Engineers
2269 Massachusetts Avenue
Cambridge, MA 02140
617/868-1420
617/868-1423 (Fax)

PARCEL 24			
BOSTON		MASSACHUSETTS	
STORM DRAIN DISCHARGE FLOW PLAN			
FOR			
PARCEL 24, LLC			
BY			
McPHAIL ASSOCIATES, LLC			
Date: JANUARY 2013	Dwn: I.J.M.	Chkd: W.J.B.	Scale: 1" = 120'
Project No: 4575			

FILE NAME: H:\Acad\0854575\RGRA4575-EO3B.dwg

FIGURE 4



McPHAIL ASSOCIATES, LLC
Geotechnical and
Geoenvironmental Engineers
2269 Massachusetts Avenue
Cambridge, MA 02140
617/868-1420
617/868-1423 (Fax)

PARCEL 24

BOSTON

MASSACHUSETTS

SCHEMATIC OF TREATMENT SYSTEM

FOR
PARCEL 24, LLC

BY
McPHAIL ASSOCIATES, LLC
CONSULTING GEOTECHNICAL ENGINEERS

Date: JANUARY 2013 Dwn: M.B.S. Chkd: W.J.B. Scale: N.T.S.

Project No: 4575



APPENDIX A

LIMITATIONS

The purpose of this report is to present the results of testing of groundwater samples obtained from monitoring wells located at the Parcel 24 site in Boston, Massachusetts, in support of an application for approval of construction site dewatering discharge into surface waters of the Commonwealth of Massachusetts under EPA's Massachusetts Remedial General Permit MAG910000.

The observations were made under the conditions stated in this report. The conclusions presented above were based on these observations. If variations in the nature and extent of subsurface conditions between the widely spaced subsurface explorations become evident in the future, it will be necessary to re-evaluate the conclusions presented herein after performing on-site observations and noting the characteristics of any variations.

The conclusions submitted in this report are based in part upon chemical test data obtained from analysis of groundwater samples, and are contingent upon their validity. The data have been reviewed, and interpretations have been made in the text. It should also be noted that fluctuations in the types and levels of contaminants and variations in their flow paths may occur due to changes in seasonal water table, past practices used in disposal and other factors.

Chemical analyses have been performed for specific constituents during the course of this site assessment, as described in the text. However, it should be noted that additional chemical constituents not searched for during the current study may be present in soil and/or groundwater at the site.

This report and application have been prepared on behalf of and for the exclusive use of Parcel 24, LLC and the Massachusetts Department of Transportation. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party nor used in whole or in part by any other party without prior written consent of McPhail Associates, LLC.



APPENDIX B

Notice of Intent Transmittal Form

Boston Water & Sewer Dewatering Discharge Permit Application

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 : Parcel 24		Facility/site mailing address:	
Location of facility/site :	Facility SIC code(s):	Street:	
longitude: 71.06		Hudson Street/Kneeland Street	
latitude: 42.3491			
b) Name of facility/site owner : MA Dept. of Transportation Highway Division		Town: Boston	
Email address of facility/site owner:		State:	Zip:
		MA	02134
Telephone no. of facility/site owner : 857-368-8804		County: Suffolk	
Fax no. of facility/site owner : 857-368-0601		Owner is (check one): 1. Federal <input type="radio"/> 2. State/Tribal <input checked="" type="radio"/>	
Address of owner (if different from site):		3. Private <input type="radio"/> 4. Other <input type="radio"/> if so, describe:	
Street: 10 Park Plaza			
Town: Boston	State: MA	Zip: 02116	County: Suffolk
c) Legal name of operator :		Operator telephone no: 617-878-7928	
Parcel 24 North LLC		Operator fax no.: 617-227-4727	Operator email: dwalker@newbostonfund.com
Operator contact name and title: Mr. David Walker			
Address of operator (if different from owner):		Street: 75 State Street, 12th Floor	
Town: Boston	State: MA	Zip: 02109	County: Suffolk

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:
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.

<u>Activity Category</u>	<u>Activity Sub-Category</u>
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 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"/>
---------------------------------------	---

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			
b) Provide the following information about each discharge:			
1) Number of discharge points:	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)?		
2	Max. flow <input type="text" value="0.223"/> Is maximum flow a design value ? Y <input type="radio"/> N <input checked="" type="radio"/> Average flow (include units) <input type="text" value="0.078 ft3/s"/> 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="42.439"/>	long. <input type="text" value="71.06"/>	pt.2: lat. <input type="text" value="42.4"/>	long. <input type="text" value="71.06"/>
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"/>		5) Is the discharge intermittent <input checked="" type="radio"/> or seasonal <input type="radio"/> ? Is discharge ongoing? Y <input type="radio"/> N <input checked="" type="radio"/>	
c) Expected dates of discharge (mm/dd/yy): start <input type="text" value="05/01/2013"/> end <input type="text" value="05/01/2015"/>			
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).			
<input type="text" value="Please refer to the attached report"/>			

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"/>								
2. Total Residual Chlorine (TRC)		<input type="checkbox"/>	<input type="checkbox"/>								
3. Total Petroleum Hydrocarbons (TPH)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	8	grab	98,EPH-04-1.1 ⁺		173	0.094	113.9	0.02176
4. Cyanide (CN)	57125	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
5. Benzene (B)	71432	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	grab	100, VPH-04-1.1	2	ND			
6. Toluene (T)	108883	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	grab	100, VPH-04-1.1	2	ND			
7. Ethylbenzene (E)	100414	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	grab	100, VPH-04-1.1	2	ND			
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	grab	100, VPH-04-1.1 ⁺	2	ND			
9. Total BTEX ²	n/a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	grab			ND			
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) ³	106934	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
11. Methyl-tert-Butyl Ether (MtBE)	1634044	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	grab	100, VPH-04-1.1 ⁺	3	ND			
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	<input checked="" type="checkbox"/>	<input type="checkbox"/>								

* 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.

<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>
13. tert-Amyl Methyl Ether (TAME)	9940508	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B	2.0	ND			
14. Naphthalene	91203	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6	grab	1,8260B	4	ND			
15. Carbon Tetrachloride	56235	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B	0.5	ND			
16. 1,2 Dichlorobenzene (o-DCB)	95501	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B	2.5	ND			
17. 1,3 Dichlorobenzene (m-DCB)	541731	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B	2.5	ND			
18. 1,4 Dichlorobenzene (p-DCB)	106467	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B	2.5	ND			
18a. Total dichlorobenzene		<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B		ND			
19. 1,1 Dichloroethane (DCA)	75343	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B	0.75	ND			
20. 1,2 Dichloroethane (DCA)	107062	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B	0.5	ND			
21. 1,1 Dichloroethene (DCE)	75354	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B	0.5	ND			
22. cis-1,2 Dichloroethene (DCE)	156592	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B	0.5	ND			
23. Methylene Chloride	75092	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B	5.0	ND			
24. Tetrachloroethene (PCE)	127184	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B	0.5	ND			
25. 1,1,1 Trichloro-ethane (TCA)	71556	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B		3.3	0.002	1.52	0.0003
26. 1,1,2 Trichloro-ethane (TCA)	79005	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B	0.5	ND			
27. Trichloroethene (TCE)	79016	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B	0.5	ND			

<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>
28. Vinyl Chloride (Chloroethene)	75014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B	0.5	ND			
29. Acetone	67641	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4	grab	60 8260B		540	0.295	142.775	0.0273
30. 1,4 Dioxane	123911	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	60 8260B	250				
31. Total Phenols	108952	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
32. Pentachlorophenol (PCP)	87865	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
33. Total Phthalates (Phthalate esters) ⁴		<input checked="" type="checkbox"/>	<input type="checkbox"/>								
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		<input checked="" type="checkbox"/>	<input type="checkbox"/>								
a. Benzo(a) Anthracene	56553	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4	grab	98,EPH-04-1.1	10	ND			
b. Benzo(a) Pyrene	50328	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	98,EPH-04-1.1	10	ND			
c. Benzo(b)Fluoranthene	205992	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	98,EPH-04-1.1 ⁺	10	ND			
d. Benzo(k)Fluoranthene	207089	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	98,EPH-04-1.1 ⁺	10	ND			
e. Chrysene	21801	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	98,EPH-04-1.1	10	ND			
f. Dibenzo(a,h)anthracene	53703	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	98,EPH-04-1.1 ⁺	10	ND			
g. Indeno(1,2,3-cd) Pyrene	193395	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	98,EPH-04-1.1 ⁺	10	ND			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		<input checked="" type="checkbox"/>	<input type="checkbox"/>								

⁴ The sum of individual phthalate compounds.

<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>
h. Acenaphthene	83329	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	98,EPH-04-1.1	10	ND			
i. Acenaphthylene	208968	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	98,EPH-04-1.1	10	ND			
j. Anthracene	120127	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	98,EPH-04-1.1	10	ND			
k. Benzo(ghi) Perylene	191242	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	98,EPH-04-1.1	10	ND			
l. Fluoranthene	206440	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	98,EPH-04-1.1	10	ND			
m. Fluorene	86737	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	98,EPH-04-1.1	10	ND			
n. Naphthalene	91203	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	98,EPH-04-1.1	10	ND			
o. Phenanthrene	85018	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	98,EPH-04-1.1	10	ND			
p. Pyrene	129000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	grab	98,EPH-04-1.1	10	ND			
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
38. Chloride	16887006	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
39. Antimony	7440360	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
40. Arsenic	7440382	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
41. Cadmium	7440439	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
42. Chromium III (trivalent)	16065831	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
43. Chromium VI (hexavalent)	18540299	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
44. Copper	7440508	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
45. Lead	7439921	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
46. Mercury	7439976	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
47. Nickel	7440020	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
48. Selenium	7782492	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
49. Silver	7440224	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
50. Zinc	7440666	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
51. Iron	7439896	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
Other (describe):		<input type="checkbox"/>	<input checked="" type="checkbox"/>								

<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>
2-methylnaphthalene		<input type="checkbox"/>	<input checked="" type="checkbox"/>								
Barium		<input type="checkbox"/>	<input checked="" type="checkbox"/>								

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

<p><i>Step 1:</i> Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y <input type="radio"/> N <input checked="" type="radio"/></p>	<p>If yes, which metals?</p>
<p><i>Step 2:</i> 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?</p> <p>Metal: <input type="text"/> DF: <input type="text"/></p> <p>Metal: <input type="text"/> DF: <input type="text"/></p> <p>Metal: <input type="text"/> DF: <input type="text"/></p> <p>Metal: <input type="text"/> DF: <input type="text"/></p> <p>Etc.</p>	<p>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)?</p> <p>Y <input type="radio"/> N <input checked="" type="radio"/> If Y, list which metals:</p>

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 5,000-gallon settling tank and bag filters in series

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 type="checkbox"/>
	Chlorination <input type="checkbox"/>	De-chlorination <input type="checkbox"/>	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 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):

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:

Please refer to attached report for narrative description and plan

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 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

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)?
Priority organics and pathogens

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.

Please refer to attached report

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:	Parcel 24
Operator signature:	
Printed Name & Title:	Mr. David Walker Senior Project Manager
Date:	3 - 21 - 2013



**Boston Water and
Sewer Commission**
980 Harrison Avenue
Boston, MA 02119-2540

DEWATERING DISCHARGE PERMIT APPLICATION

OWNER / AUTHORIZED APPLICANT PROVIDE INFORMATION HERE:

Company Name: Parcel 24 North LLC Address: 75 State Street; 12th Floor, Boston, MA 02109

Phone number: 617-878-7928 Fax number: 617-227-4727

Contact person name: Mr. David Walker Title: Senior Project Manager

Cell number: _____ Email address: dwalker@newbostonfund.com

Permit Request (check one): ☒ New Application ☐ Permit Extension ☐ Other (Specify): _____

Owner's Information (if different from above):

Owner of property being dewatered: Massachusetts Department of Transportation

Owner's mailing address: 10 Park Plaza; Boston, MA, 02116 Phone number: 857-368-8804

Location of Discharge & Proposed Treatment System(s):

Street number and name: Parcel 24 site; Hudson St./Kneeland St. Neighborhood Boston

Discharge is to a: ☐ Sanitary Sewer ☐ Combined Sewer ☒ Storm Drain ☐ Other (specify): _____

Describe Proposed Pre-Treatment System(s): Oil/water separator, settling tank, organo clay media, granular activated carbon filter in series

BWSC Outfall No. SDO308 & SDO309 Receiving Waters Fort Point Channel

Temporary Discharges (Provide Anticipated Dates of Discharge): From May 1, 2013 To May 1, 2015

<input type="checkbox"/> Groundwater Remediation	<input type="checkbox"/> Tank Removal/Installation	<input checked="" type="checkbox"/> Foundation Excavation
<input type="checkbox"/> Utility/Manhole Pumping	<input type="checkbox"/> Test Pipe	<input type="checkbox"/> Trench Excavation
<input type="checkbox"/> Accumulated Surface Water	<input type="checkbox"/> Hydrogeologic Testing	<input type="checkbox"/> Other _____

Permanent Discharges

<input type="checkbox"/> Foundation Drainage	<input type="checkbox"/> Crawl Space/Footing Drain
<input type="checkbox"/> Accumulated Surface Water	<input type="checkbox"/> Non-contact/Uncontaminated Cooling
<input type="checkbox"/> Non-contact/Uncontaminated Process	<input type="checkbox"/> Other; _____

1. Attach a Site Plan showing the source of the discharge and the location of the point of discharge (i.e. the sewer pipe or catch basin). Include meter type, meter number, size, make and start reading. Note. All discharges to the Commission's sewer system will be assessed current sewer charges.
2. If discharging to a sanitary or combined sewer, attach a copy of MWRA's Sewer Use Discharge permit or application.
3. If discharging to a separate storm drain, attach a copy of EPA's NPDES Permit or NOI application, or NPDES Permit exclusion letter for the discharge, as well as other relevant information.
4. Dewatering Drainage Permit will be denied or revoked if applicant fails to obtain the necessary permits from MWRA or EPA.

Submit Completed Application to: Boston Water and Sewer Commission
Engineering Customer Services
980 Harrison Avenue, Boston, MA 02119
Attn: Francis M. McLaughlin, Manager Engineering Customer Services
E-mail: MclaughlinF@bwsc.org
Phone: 617-989-7208 Fax: 617-989-7716

BWSC Use Only: Date Received _____ Comments: _____



APPENDIX C

RESULTS OF GROUNDWATER ANALYSIS

During June 2008 and October 2011, groundwater samples were obtained from monitoring wells on the subject site and analyzed for the presence VOCs, EPH fractions with target PAHs and/or VPH fractions with target SVOCs. The results of chemical analyses performed on groundwater samples are summarized in **Table 1**.

Four (4) samples obtained from monitoring wells installed in borings B-2 (OW), B-4 (OW), B-9(OW) and B-15(OW) were analyzed for the presence of VOCs. With the exception of 1,1,1-trichloroethane, 2-butanone and acetone, VOCs were not detected above the laboratory method detection limits in the samples analyzed. The VOCs detected above the laboratory method detection limits exhibited concentrations below the applicable RCGW-2 reporting standards and applicable RGP limits for discharge.

A total of eight (8) groundwater samples were analyzed for the presence of EPH fractions and target PAHs. EPH fractions, C9-C18 Aliphatics and C11-C22 Aromatics were not detected above the laboratory method detection limits. EPH fraction C19-C36 Aliphatics were detected at concentrations ranging from below the laboratory method detection limit up to 0.17 milligrams per liter (mg/l), which is below the RCGW-2 reporting standard of 50 mg/l. The target PAHs were not detected above the laboratory method detection limits.

Two (2) groundwater samples were analyzed for the presence of VPH fractions and target VOCs. VPH fractions, C5-C8 Aliphatics, C9-C12 Aliphatics and C9-C10 Aromatics were not detected above the laboratory method detection limits. The target VOCs were not detected above the laboratory method detection limits.

Table 1
ANALYTICAL RESULTS - GROUNDWATER

Parcel 24
Boston, MA
Project No. 4575

LOCATION	RCGW-2	RGP Discharge Limits	B-2 S1 6/3/08	B-4 S1 6/3/08	B-9 S1 6/3/08	B-15 S1 6/3/08	E-25	E-26	E-20 (OW)	B-23 (OW)
SAMPLING DATE			6/3/2008	6/3/2008	6/3/2008	6/3/2008	10/6/2011	10/6/2011	11/29/2011	11/29/2011
LAB SAMPLE ID			L0808157-01	L0808157-02	L0808157-03	L0808157-04	L1116143-01	L1116143-02	L1119804-01	L1119804-02
Extractable Petroleum Hydrocarbons (ug/l)										
C9-C18 Aliphatics	5000		ND(105)	ND(103)	ND(102)	ND(103)	ND(100)	ND(100)	ND(100)	ND(100)
C19-C36 Aliphatics	50000		117	173	ND(102)	119	ND(100)	ND(100)	ND(100)	ND(100)
C11-C22 Aromatics, Adjusted	5000		ND(105)	ND(103)	ND(102)	ND(103)	ND(100)	ND(100)	ND(100)	ND(100)
2-Methylnaphthalene	2000		ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
Group II PAHs (ug/l)										
Acenaphthene	6000		ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
Acenaphthylene	40		ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
Anthracene	30		ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
Benzo(ghi)perylene	20		ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
Fluoranthene	200		ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
Fluorene	40		ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
Naphthalene	1000	20	ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
Indeno(1,2,3-cd)Pyrene	100		ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
Phenanthrene	10000		ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
Pyrene	20		ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
SUM		10	ND	ND	ND	ND	ND	ND	ND	ND
Group I PAHs (ug/l)										
Benzo(a)anthracene	1000	0.0038	ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
Chrysene	70	0.0038	ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
Benzo(b)fluoranthene	400	0.0038	ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
Benzo(k)fluoranthene	100	0.0038	ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
Benzo(a)pyrene	500	0.0038	ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
Dibenzo(a,h)anthracene	40	0.0038	ND(10.5)	ND(10.3)	ND(10.2)	ND(10.3)	ND(10)	ND(10)	ND(10)	ND(10)
SUM		10	ND	ND	ND	ND	ND	ND	ND	ND
MCP Volatile Organics (ug/l)										
1,1,1-Trichloroethane	4000	200	ND(0.5)	3.3	1.5	0.78	-	-	-	-
Acetone	50000		ND(5)	18	540	8.1	-	-	-	-
2-Butanone	50000		ND(5)	ND(5)	7.6	ND(5)	-	-	-	-
SUM			ND	21.3	549.1	8.88	-	-	-	
Volatile Petroleum Hydrocarbons (ug/l)										
C9-C10 Aromatics	7000		-	-	-	-	ND(50)	ND(50)	-	-
C5-C8 Aliphatics, Adjusted	3000		-	-	-	-	ND(50)	ND(50)	-	-
C9-C12 Aliphatics, Adjusted	5000		-	-	-	-	ND(50)	ND(50)	-	-
Benzene	2000		-	-	-	-	ND(2)	ND(2)	-	-
Toluene	40000		-	-	-	-	ND(2)	ND(2)	-	-
Ethylbenzene	5000		-	-	-	-	ND(2)	ND(2)	-	-
p/m-Xylene	5000		-	-	-	-	ND(2)	ND(2)	-	-
o-Xylene	5000		-	-	-	-	ND(2)	ND(2)	-	-
Total BTEX		100					ND	ND		
Methyl tert butyl ether	5000		-	-	-	-	ND(3)	ND(3)	-	-
Naphthalene	1000	20	-	-	-	-	ND(4)	ND(4)	-	-

ND-not detected in excess of the laboratory
method detection limit in ()
Tested Compounds not shown do not exceed laboratory
method detection limits

TABLE 2
Calculations of Mass of Compounds

Parcel 24
Boston, Massachusetts
McPhail Job No. 4575

Avg flow (GPM) = 100			
Avg Flow (MGD) = 0.144			
Compound #	Max Concentration (ug/l)	Max Concentration (mg/l)	MASS (kg)
1,1,1-trichloroethane	3	0.0033	0.002
Acetone	540	0.54	0.29478
C19-C36 Aliphatics	173.0	0.173	0.09444
Avg flow (GPM) = 35			
Avg Flow (MGD) = 0.0504			
Compound #	Max Concentration (ug/l)	Max Concentration (mg/l)	MASS (kg)
1,1,1-trichloroethane	2	0.00152	0.0003
Acetone	143	0.1428	0.02728
C19-C36 Aliphatics	113.90	0.1139	0.02176

GPM = Gallons Per Minute
MGD = Million Gallons Per Day
ug/l = Micrograms per liter
mg/l = Milligrams per liter
kg = Kilograms

McPhail Associates, LLC



APPENDIX D

AREAS OF CRITICAL CONCERN, ENDANGERED AND THREATENED SPECIES

Based on an on-line edition of the Massachusetts Geographic Information Systems DEP Priority Resources Map, the subject site is not located within the boundaries of a Potentially Productive Aquifer or within a Zone II, Interim Wellhead Protection Area as defined by the Massachusetts Department of Environmental Protection. Further, there are no public drinking water supply wells, no Areas of Critical Environmental Concern, no fish habitats, no habitats of Species of Special Concern or Threatened or Endangered Species within specified distances of the subject site. Gateway Park, a protected open space is located approximately 500 feet to the east of the subject site.

The Resource Map indicates that there are no wetland areas on or within 500 feet of the subject site. Fort Point Channel, which is the location of discharge, is located approximately 1,500 feet to the east-northeast of the subject site. No areas designated as solid waste sites (landfills) are noted as being located within 1,000 feet of the site. The Fort Point Channel is a 303(d) water quality impaired water body for pollutants that include priority organics and pathogens.

A review of the most recent federal listing of threatened and endangered species published by the U.S. Fish and Wildlife Service did not identify the presence of threatened and/or endangered species or critical habitats at or in the vicinity of the discharge location and/or discharge outfall. In addition, a review of the Massachusetts Division of Fisheries and Wildlife on-line database did not indicate the presence of threatened or endangered species at the point of discharge and/or the discharge outfall.

Based upon the above, the site is considered criterion A pursuant to Appendix IV of the RGP.



New England Field Office

Conserving the Nature of New England

Thursday,
January 31, 2013

ENDANGERED SPECIES

Overview
Consultation
N.E. Listed Species
Species Under Review
Recovery Activities
Habitat Conservation
Images
Biological Opinions

PARTNERS FOR FISH & WILDLIFE

Overview
Restoration Initiatives
Species & Habitats of
Special Concern
Accomplishments
How to Participate
Habitat Restoration
Links

ENVIRONMENTAL CONTAMINANTS

Overview
BTAG
NRDAR
Special Studies
Oil Spills

FEDERAL ACTIVITIES

Overview
Federal Projects &
Permits
Wetland Permits
FERC_Hydropower
Projects
River Flow Protection
Wind Energy Projects

OUTREACH

NH Envirothon
Kids Corner
Let's Go Outside

Staff Directory

Our Location

HOME



Endangered Species

New England Listed Species

The following federally-listed species are protected in New England. This list includes links to species information on our National Fish and Wildlife Service website including current Federal Register documents, HCPs, Recovery Plans, Life History accounts.

Vertebrates

Mammals

Eastern Cougar - [Puma \(=Felis\) concolor cougar](#)
Gray Wolf - [Canis lupus](#)
Indiana Bat - [Myotis sodalis](#)
Canada Lynx - [Lynx canadensis](#)

Birds

Atlantic Coast Piping Plover - [Charadrius melodus](#)
Birds of North America Species Account [Piping Plover](#)
Atlantic Coast piping plover website [Piping Plover](#)
Roseate Tern - [Sterna dougallii dougallii](#)
Birds of North America Species Account [Roseate Tern](#)

Reptiles

Bog Turtle - [Clemmys muhlenbergii](#)
Northern Redbelly Cooter (Plymouth redbelly turtle) [Pseudemys rubriventris bangsii](#)
[Northern Redbelly Cooter 5-year Review](#); (pdf size 1.6MB*) May 2007

Fish

Atlantic Salmon - [Salmo salar](#) (Maine only)
[Maine Atlantic Salmon Atlas](#)

Invertebrates

Insects

American Burying Beetle - [Nicrophorus americanus](#)
Karner Blue Butterfly - [Lycaeides melissa samuelis](#)
Karner Blue Butterfly [Fact sheet](#)
Northeastern Beach Tiger Beetle - [Cicindela dorsalis dorsalis](#)
Puritan Tiger Beetle - [Cicindela puritana](#)
[Draft Puritan Tiger Beetle](#); (pdf size 2.4MB*) 5-year Review

Mussels

Dwarf Wedgemussel - [Alasmidonta heterodon](#)
[Dwarf Wedgemussel 5-Year Status Review 2007](#) (pdf size 1.14MB*)

Plants

Jesup's Milkvetch - [Astragalus robbinsii var. jesupi](#)
Northeastern Bulrush - [Scirpus ancistrochaetus](#)
Sandplain Gerardia - [Agalinis acuta](#)
Small Whorled Pogonia - [Isotria medeoloides](#)
Seabeach Amaranth - [Amaranthus pumilus](#) (historic)
American Chaffseed - [Schwalbea americana](#) (historic)
Eastern Prairie Fringed Orchid - [Platanthera leucophaea](#) (Maine only)
Furbish's Lousewort - [Pedicularis furbishiae](#) (Maine only)

Candidate species and species recently delisted are identified below, including links for additional information regarding their status.

Candidate Species

The Service has recently completed a status assessment for the following species and determined that federal listing is "warranted, but precluded", i.e. the status of the species indicates that it should be listed but the listing is superceded by higher listing actions.

While there is currently no obligation for Federal Agencies to consult with us regarding these species, coordination is encouraged to avoid project delays that may occur as a result of the species becoming federally-listed during the planning or construction phases of a given project. In addition, the Service is interested in promoting conservation actions that may result in benefits to these species that will prevent the need to list it. Information regarding our [candidate conservation](#) program may help you decide if you would like to become involved.

- [New England Cottontail; *Sylvilagus transitionalis*](#)
- Red Knot [Calidris canutus rufa](#); [Red Knot Fact Sheet](#)

Delisted Species

Bald Eagle - [Haliaeetus leucocephalus](#)
[Bald Eagle Guidance](#)



NCTC Eagle Cam

This Bald Eagle image is a link to a Service website that chronicles the activities of the eagle nest located on the grounds of the USFWS National Conservation Training Center near the Potomac River in Shepherdstown, West Virginia. The nest has been active for four seasons, fledging several juvenile bald eagles.

Files in PDF format will require Acrobat Reader to access the content. If you do not have a copy, please select the link [or click the image] to take you to the Adobe website where you can download a free copy. [Get Adobe Acrobat Reader](#)

Last updated: October 28, 2010

MASSACHUSETTS AREAS OF CRITICAL ENVIRONMENTAL CONCERN

June 2009

Total Approximate Acreage: 268,000 acres

Approximate acreage and designation date follow ACEC names below.

Bourne Back River

(1,850 acres, 1989) Bourne

Canoe River Aquifer and Associated Areas (17,200 acres, 1991) Easton, Foxborough, Mansfield, Norton, Sharon, and Taunton

Cedar Swamp

(1,650 acres, 1975) Hopkinton and Westborough

Central Nashua River Valley

(12,900 acres, 1996) Bolton, Harvard, Lancaster, and Leominster

Cranberry Brook Watershed

(1,050 acres, 1983) Braintree and Holbrook

Ellisville Harbor

(600 acres, 1980) Plymouth

Fowl Meadow and Ponkapoag Bog

(8,350 acres, 1992) Boston, Canton, Dedham, Milton, Norwood, Randolph, Sharon, and Westwood

Golden Hills

(500 acres, 1987) Melrose, Saugus, and Wakefield

Great Marsh (originally designated as Parker River/Essex Bay)

(25,500 acres, 1979) Essex, Gloucester, Ipswich, Newbury, and Rowley

Herring River Watershed

(4,450 acres, 1991) Bourne and Plymouth

Hinsdale Flats Watershed

(14,500 acres, 1992) Dalton, Hinsdale, Peru, and Washington

Hockomock Swamp

(16,950 acres, 1990) Bridgewater, Easton, Norton, Raynham, Taunton, and West Bridgewater

Inner Cape Cod Bay

(2,600 acres, 1985) Brewster, Eastham, and Orleans

Kampoosa Bog Drainage Basin

(1,350 acres, 1995) Lee and Stockbridge

Karner Brook Watershed

(7,000 acres, 1992) Egremont and Mount Washington

Miscoe, Warren, and Whitehall Watersheds

(8,700 acres, 2000) Grafton, Hopkinton, and Upton

Neponset River Estuary

(1,300 acres, 1995) Boston, Milton, and Quincy

Petapawag

(25,680 acres, 2002) Ayer, Dunstable, Groton, Pepperell, and Tyngsborough

Pleasant Bay

(9,240 acres, 1987) Brewster, Chatham, Harwich, and Orleans

Pocasset River

(160 acres, 1980) Bourne

Rumney Marshes

(2,800 acres, 1988) Boston, Lynn, Revere, Saugus, and Winthrop

Sandy Neck Barrier Beach System

(9,130 acres, 1978) Barnstable and Sandwich

Schenob Brook Drainage Basin

(13,750 acres, 1990) Mount Washington and Sheffield

Squannassit

(37,420 acres, 2002) Ashby, Ayer, Groton, Harvard, Lancaster, Lunenburg, Pepperell, Shirley, and Townsend

Three Mile River Watershed

(14,280 acres, 2008) Dighton, Norton, Taunton

Upper Housatonic River

(12,280 acres, 2009) Lee, Lenox, Pittsfield, Washington

Waquoit Bay

(2,580 acres, 1979) Falmouth and Mashpee

Weir River

(950 acres, 1986) Cohasset, Hingham, and Hull

Wellfleet Harbor

(12,480 acres, 1989) Eastham, Truro, and Wellfleet

Weymouth Back River

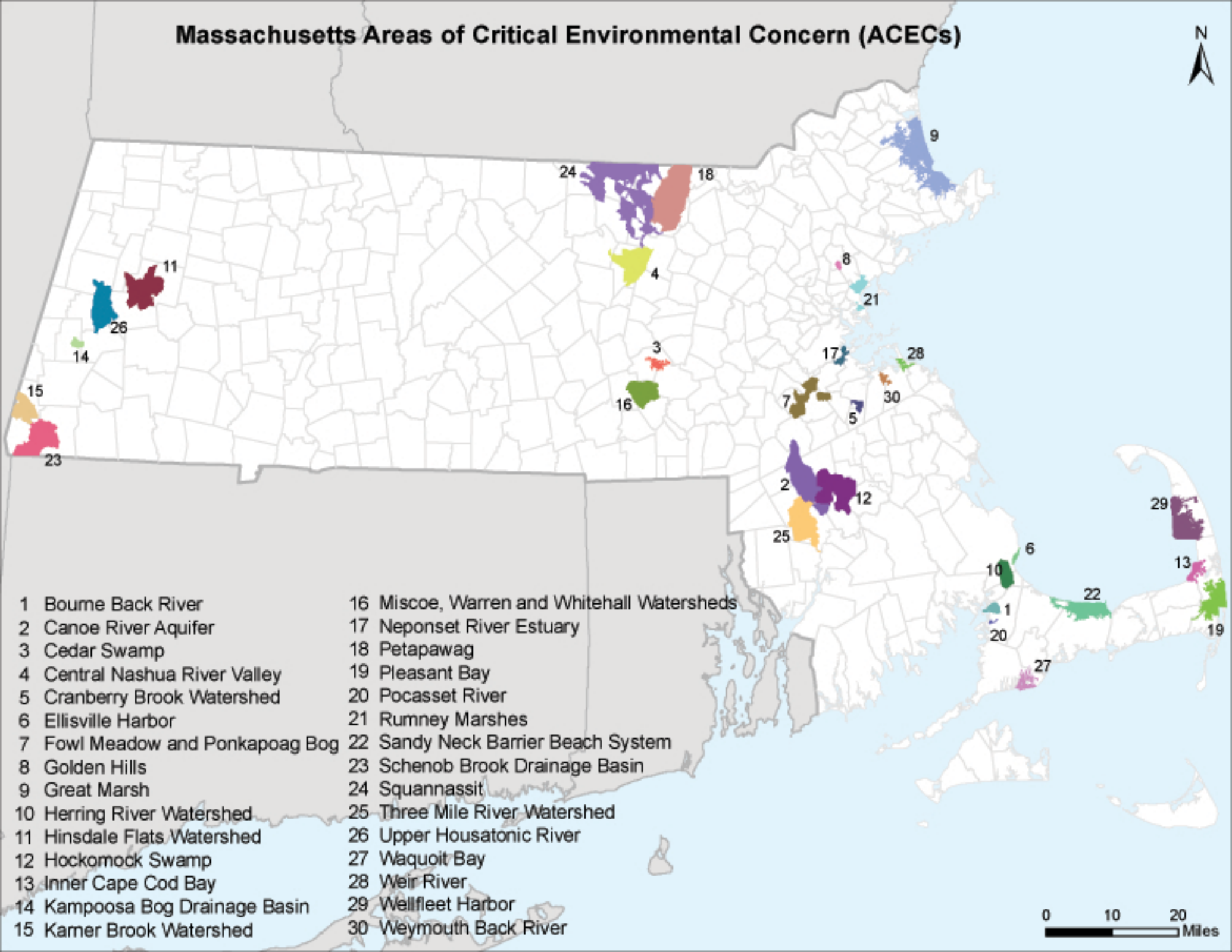
(800 acres, 1982) Hingham and Weymouth

Towns with ACECs within their Boundaries

June 2009

TOWN	ACEC	TOWN	ACEC
Ashby	Squannassit	Mt. Washington	Karner Brook Watershed
Ayer	Petapawag		Schenob Brook
	Squannassit	Newbury	Great Marsh
Barnstable	Sandy Neck Barrier Beach System	Norton	Hockomock Swamp
Bolton	Central Nashua River Valley		Canoe River Aquifer
Boston	Rumney Marshes		Three Mile River Watershed
	Fowl Meadow and Ponkapoag Bog	Norwood	Fowl Meadow and Ponkapoag Bog
	Neponset River Estuary	Orleans	Inner Cape Cod Bay
Bourne	Pocasset River		Pleasant Bay
	Bourne Back River	Pepperell	Petapawag
	Herring River Watershed		Squannassit
Braintree	Cranberry Brook Watershed	Peru	Hinsdale Flats Watershed
Brewster	Pleasant Bay	Pittsfield	Upper Housatonic River
	Inner Cape Cod Bay	Plymouth	Herring River Watershed
Bridgewater	Hockomock Swamp		Ellisville Harbor
Canton	Fowl Meadow and Ponkapoag Bog	Quincy	Neponset River Estuary
Chatham	Pleasant Bay	Randolph	Fowl Meadow and Ponkapoag Bog
Cohasset	Weir River	Raynham	Hockomock Swamp
Dalton	Hinsdale Flats Watershed	Revere	Rumney Marshes
Dedham	Fowl Meadow and Ponkapoag Bog	Rowley	Great Marsh
Dighton	Three Mile River Watershed	Sandwich	Sandy Neck Barrier Beach System
Dunstable	Petapawag	Saugus	Rumney Marshes
Eastham	Inner Cape Cod Bay		Golden Hills
	Wellfleet Harbor	Sharon	Canoe River Aquifer
Easton	Canoe River Aquifer		Fowl Meadow and Ponkapoag Bog
	Hockomock Swamp	Sheffield	Schenob Brook
Egremont	Karner Brook Watershed	Shirley	Squannassit
Essex	Great Marsh	Stockbridge	Kampoosa Bog Drainage Basin
Falmouth	Waquoit Bay	Taunton	Hockomock Swamp
Foxborough	Canoe River Aquifer		Canoe River Aquifer
Gloucester	Great Marsh		Three Mile River Watershed
Grafton	Miscoe-Warren-Whitehall Watersheds	Truro	Wellfleet Harbor
		Townsend	Squannassit
Groton	Petapawag	Tyngsborough	Petapawag
	Squannassit	Upton	Miscoe-Warren-Whitehall Watersheds
Harvard	Central Nashua River Valley		
	Squannassit	Wakefield	Golden Hills
Harwich	Pleasant Bay	Washington	Hinsdale Flats Watershed
Hingham	Weir River		Upper Housatonic River
	Weymouth Back River	Wellfleet	Wellfleet Harbor
Hinsdale	Hinsdale Flats Watershed	W Bridgewater	Hockomock Swamp
Holbrook	Cranberry Brook Watershed	Westborough	Cedar Swamp
Hopkinton	Miscoe-Warren-Whitehall Watersheds	Westwood	Fowl Meadow and Ponkapoag Bog
		Weymouth	Weymouth Back River
	Cedar Swamp	Winthrop	Rumney Marshes
Hull	Weir River		
Ipswich	Great Marsh		
Lancaster	Central Nashua River Valley		
	Squannassit		
Lee	Kampoosa Bog Drainage Basin		
	Upper Housatonic River		
Lenox	Upper Housatonic River		
Leominster	Central Nashua River Valley		
Lunenburg	Squannassit		
Lynn	Rumney Marshes		
Mansfield	Canoe River Aquifer		
Mashpee	Waquoit Bay		
Melrose	Golden Hills		
Milton	Fowl Meadow and Ponkapoag Bog		
	Neponset River Estuary		

Massachusetts Areas of Critical Environmental Concern (ACECs)



0 10 20 Miles

- | | |
|---------------------------------|--|
| 1 Bourne Back River | 16 Miscoe, Warren and Whitehall Watersheds |
| 2 Canoe River Aquifer | 17 Neponset River Estuary |
| 3 Cedar Swamp | 18 Petapawag |
| 4 Central Nashua River Valley | 19 Pleasant Bay |
| 5 Cranberry Brook Watershed | 20 Pocasset River |
| 6 Ellisville Harbor | 21 Rumney Marshes |
| 7 Fowl Meadow and Ponkapoag Bog | 22 Sandy Neck Barrier Beach System |
| 8 Golden Hills | 23 Schenob Brook Drainage Basin |
| 9 Great Marsh | 24 Squannassit |
| 10 Herring River Watershed | 25 Three Mile River Watershed |
| 11 Hinsdale Flats Watershed | 26 Upper Housatonic River |
| 12 Hockomock Swamp | 27 Waquoit Bay |
| 13 Inner Cape Cod Bay | 28 Weir River |
| 14 Kampoosa Bog Drainage Basin | 29 Wellfleet Harbor |
| 15 Karter Brook Watershed | 30 Weymouth Back River |

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)
Berkshire	Bog Turtle	Threatened	Wetlands	Egremont and Sheffield
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	Raynham and Taunton
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
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	Glocester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague
	Dwarf wedgemussel	Endangered	Mill River	Whately
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.	Hadley, Hatfield, Amherst and Northampton
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
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
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, and Wareham
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoisett.
Suffolk	Piping Plover	Threatened	Coastal Beaches	Winthrop
Worcester	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Leominster

- 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.

7/31/2008



APPENDIX E

NATIONAL REGISTER OF HISTORIC PLACES

The National Register of Historic Places and Massachusetts Historical Commission on-line databases were reviewed for listings located within the immediate vicinity of the subject site in Boston, Massachusetts. A review of the most recent National Register of Historical Places for Suffolk County, Massachusetts did not identify records or addresses of Historic Places that exist in the immediate vicinity of the subject site and/or outfall location. The Massachusetts Historical Commission on-line database did identify buildings which are located on the opposite side of the Hudson Street from the subject site as being historic places. However, given that dewatering activities will be contained within the subject site and the ultimate point of discharge for the dewatered groundwater from the site is the Fort Point Channel, the dewatering and off-site discharge activities at the site are not considered to affect the historic places located in close proximity to the subject site.

Based upon the above, the site considered criterion 2 pursuant to Appendix IV of the RGP.

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Street Name: Hudson; Resource Type(s): Building, Structure, Burial Ground, Area;

Inv. No.	Property Name	Street	Town	Year
BOS.1803		3 Hudson St	Boston	1843
BOS.1804	Diamond, A. Building	5-9 Hudson St	Boston	1914
BOS.1805	Fuller, Charles - Bosworth, Royal Row House	11-23 Hudson St	Boston	1843
BOS.1801	Millard, Samuel Row House	14-18 Hudson St	Boston	1841
BOS.1802	Chinese Merchants Association Building	20 Hudson St	Boston	1949
BOS.2200	Cram, George W. Rowhouse	71 Hudson St	Boston	1840
BOS.2201	Cram, George W. Rowhouse	73 Hudson St	Boston	1840
BOS.2202	Cram, George W. Rowhouse	75 Hudson St	Boston	1840
BOS.2203	Cram, George W. Rowhouse	77 Hudson St	Boston	1840
BOS.2204	Cram, George W. Rowhouse	79 Hudson St	Boston	1840
BOS.2205		89 Hudson St	Boston	1845
BOS.2206		91 Hudson St	Boston	1845
BOS.2207		93 Hudson St	Boston	1845
BOS.2208		95 Hudson St	Boston	1845
BOS.2209		97 Hudson St	Boston	1845
BOS.2210		99 Hudson St	Boston	1845
BOS.2211		101 Hudson St	Boston	1845
BOS.2212		103 Hudson St	Boston	1845



APPENDIX F

Best Management Practice Plan

A Notice of Intent for a Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES) has been submitted to the US Environmental Protection Agency (EPA) in anticipation of temporary construction dewatering that may occur at the Parcel 24 site located in Boston, Massachusetts. This Best Management Practices Plan (BMPP) has been prepared as an Appendix to the RGP and will be posted at the site during the time period that temporary construction dewatering is occurring at the site.

Water Treatment and Management

Construction dewatering effluent is anticipated to be pumped from localized sumps and trenches within the excavation and directly into a treatment system consisting of an settling tank and bag filters in series. The effluent will be discharged through hoses into dedicated storm drains located at the southern portion of the subject site. Based upon a review of the Boston Water and Sewer Commission stormwater drain GIS database, the stormwater drains at the subject site ultimately discharge into the Fort Point Channel.

Discharge Monitoring and Compliance

Regular sampling and testing will be conducted at the influent to the system and the treated effluent as required by the RGP. This includes chemical testing required within days 1 and 3 of initial discharge and the monthly testing to be conducted through the end of the scheduled discharge.

Monitoring will include checking the condition of the treatment system, assessing the need for treatment system adjustments based on monitoring data, observing and recording daily flow rates and discharge quantities, and verifying the flow path of the discharged effluent.

The total monthly flow will be monitored by checking and documenting the flow through the flow meter to be installed on the system. Flow will be maintained below the "system design flow" by regularly monitoring flow and adjusting the amount of construction dewatering as needed.

Monthly monitoring reports will be compiled and maintained at the site

System Maintenance

A number of methods will be used to minimize the potential for violations for the term of this permit. Scheduled regular maintenance of the treatment system will be conducted to verify proper operation. Regular maintenance will include assessing the amount of sediment in the settling tank and the condition of the bag filters, pumps, and flow meters. Equipment will be monitored daily for potential issues or unscheduled maintenance requirements.

Employees who have direct or indirect responsibility for ensuring compliance with the RGP will be trained by the Contractor.



Miscellaneous Items

It is anticipated that the erosion control measures and the nature of the site will minimize potential runoff to or from the site. The project specifications also include requirements for erosion control. Site security for the treatment system will be covered within the overall site security plan.

No adverse affects on designated uses of surrounding surface water bodies is anticipated. The nearest surface water body is the Fort Point Channel which is located 1,200 feet to east-northeast of the subject site. Groundwater will be pumped through a treatment system consisting of a settling tank and bag filters in series prior to discharge into the City of Boston storm drain system.

Management of Treatment System Materials

Dewatering effluent will be pumped directly to the treatment system from the excavation with use of hoses and sumps to minimize handling. The Contractor will establish staging areas for equipment or materials storage that may be possible sources of pollution away from any dewatering activities, to the extent practicable.

Sediment contained in the settling tank will be characterized and removed from the site to an appropriate receiving facility, in accordance with applicable laws and regulations.