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10/14/08 - received

September 11, 2008 –

GeoInsight Project 5591-000

Environmental Protection Agency
Attention: Ann Herrick
Industrial NPDES Permits (CIP)
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023.

RE: Notice of Intent, Remediation General Permit
MWRA Cottage Farm / Brookline Connection Project
Cambridge, Massachusetts

Ms. Herrick:

GeoInsight, Inc. (GeoInsight) prepared this National Pollution Discharge Elimination System (NPDES) Notice of Intent (NOI) for the Remediation General Permit (RGP) at the request of D & C Construction Co., Inc. (D&C) for a dewatering discharge treatment system associated with a new subsurface structure to be completed at the Cottage Farm Combined Sewer Overflow treatment system (the site) owned by the Massachusetts Water Resource Authority. The site is located adjacent to the Charles River, the Route 2 bridge, and Memorial Drive in Cambridge, Massachusetts. The geographic location of the site is shown on Figure 1 and the location of the proposed dewatering area is shown on Figure 2.

Based upon the existing ground water analytical data for the project, treatment of total suspended solids will be necessary. Although iron is present in ground water at concentrations above the RGP recommended limits, a dilution calculation was performed (Section 3(c) of the NOI), and indicates that iron does not likely have the potential to adversely impact the Charles River.

Construction activities are anticipated to initiate in early October with anticipated completion by the end of December 2008. Please contact us in our New Hampshire office at (603) 314-0820 if you have questions or if you require additional information to process this RGP application.

Sincerely,
GEOINSIGHT, INC.

Lynn M. Grochala
Sr. Project Environmental Scientist

Michael C. Penney, P.E., L.S.P.
Senior Engineer/Senior Associate

Attachments

P:\5591 D&C Construction MWRA Dewatering\RGP\RGP Transmittal.doc

GeoInsight, Inc.
25 Sundial Ave., Suite 515 West
Manchester, NH 03103-7244
Tel (603) 314-0820
Fax (603) 314-0821
www.geoinsightinc.com

GeoInsight, Inc.
5 Lan Drive, Suite 200
Westford, MA 01886-3538
Tel (978) 692-1114
Fax (978) 692-1115

GeoInsight, Inc.
Corporate Ten Center
1781 Highland Ave., Suite 207
Cheshire, CT 06410-1254
Tel (203) 271-8036
Fax (203) 271-8038

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

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

a) Name of **facility/site**: MWRA Cottage Farm/Brookline Connection CSO		**Facility/site** address:		
Location of **facility/site**: longitude: 42°21'13" latitude: 71°06'42"	Facility SIC code(s): 4952	Street: 660 Memorial Drive		
b) Name of **facility/site owner**: Massachusetts Water Resource Authority		Town: Cambridge		
Email address of owner: Eleanor.Duffy@MWRA.State.MA.US		State: MA	Zip: 02139	Coun
Telephone no.of facility/site **owner**: (617) 570-5458				
Fax no. of facility/site **owner**: (617) 371-1607		**Owner** is (check one): 1. Federal____ 2. State/Tribal ✓		
Address of **owner** (if different from site): Charlestown Navy Yard		3. Private_____ 4. other, if so, describe:		
Street: 100 First Avenue				
Town: Boston	State: MA	Zip: 02129	County: Suffolk	
c) Legal name of **operator**: D&C Construction Co., Inc.	**Operator** telephone no: (978) 355-2426			
	Operator fax no.: (978) 355-2427		**Operator** email: Louis@da	
Operator contact name and title: Brad Cleaves, President				
Address of **operator** (if different from owner):	Street: 21 Allen Drive, PO Box 609			
Town: Barre	State: MA	Zip: 01005-0609	County: Worcester	

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

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes___ No_✓ If "yes," 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 storm water general permit? Y___ N_✓_, if Y, number: 2. phase I or II construction storm water general permit? Y___ N_✓_, if Y, number: 3. individual NPDES permit? Y_✓_ N___, if Y, number: MA0103284 4. any other water quality related permit? Y___ N_✓_, if Y, number:

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

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

Dewatering related to MWRA pipeline modifications/construction

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, ft3/s)? Max. flow 3.23 Average flow 2.12 Is maximum flow a **design value**? Y✓ N____ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.

3) Latitude and longitude of each discharge within 100 feet: pt.1:long. 42°21'14"N lat. 71°06'41"W; pt.2: long._____ lat._____; pt.3: long._____ lat._____; pt.4:long._____ lat._____; pt.5: long._____ lat._____; pt.6:long._____ lat._____; pt.7: long._____ lat._____; pt.8:long._____ lat._____; etc.

4) If hydrostatic testing, total volume of the discharge (gals):	5) Is the discharge intermittent_____or seasonal_____? Is discharge ongoing Yes ✓ No_____?__

c) Expected dates of discharge (mm/dd/yy): start 10/15/08 end 12/31/08

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. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for **all** of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only	VOC Only	Primarily Metals	Urban Fill Sites ✓	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants	Petroleum with Other Contaminants	Listed Contaminated Sites ✓	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids		✓	1	grab	E160.2	4.0	10,000	76		
2. Total Residual Chlorine	✓		1	grab	M4500- CLG	0.020	ND(0.02)	NA		
3. Total Petroleum Hydrocarbons	✓		1	grab	E1664	5,000	ND (5,000)	NA		
4. Cyanide	✓		1	grab	E335.2	10	ND(10)	NA		
5. Benzene	✓		1	grab	8260B	1.0	ND(1)	NA		
6. Toluene	✓		1	grab	8260B	2.0	ND(2)	NA		
7. Ethylbenzene	✓		1	grab	8260B	2.0	ND(2)	NA		
8. (m,p,o) Xylenes	✓		1	grab	8260B	2.0	ND(4)	NA		
9. Total BTEX[4]	✓		1	grab	8260B	--	--	--		

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

NOTE: Blank cells indicate that historical data is not available.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide [5] (1,2- Dibromo-methane)										
11. Methyl-tert-Butyl Ether (MtBE)	✓		1	grab	8260B	2.0	ND(2)	NA		
12. tert-Butyl Alcohol (TBA)										
13. tert-Amyl Methyl Ether (TAME)										
14. Naphthalene	✓		1	grab	8260B	5.0	ND(5)	NA		
15. Carbon Tetra-chloride	✓		1	grab	8260B	2.0	ND(2)	NA		
16. 1,4 Dichlorobenzene	✓		1	grab	8260B	2.0	ND(2)	NA		
17. 1,2 Dichlorobenzene	✓		1	grab	8260B	2.0	ND(2)	NA		
18. 1,3 Dichlorobenzene	✓		1	grab	8260B	2.0	ND(2)	NA		
19. 1,1 Dichloroethane	✓		1	grab	8260B	2.0	ND(2)	NA		
20. 1,2 Dichloroethane	✓		1	grab	8260B	2.0	ND(2)	NA		
21. 1,1 Dichloroethylene	✓		1	grab	8260B	1.0	ND(1)	NA		
22. cis-1,2 Dichloro-ethylene		✓	1	grab	8260B	2.0	8.8	0.07		
23. Dichloromethane (Methylene Chloride)	✓		1	grab	8260B	5.0	ND(5)	NA		
24. Tetrachloroethylene	✓		1	grab	8260B	2.0	ND(2)	NA		

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	✓		1	grab	8260B	2.0	ND(2)	NA		
26. 1,1,2 Trichloroethane	✓		1	grab	8260B	2.0	ND(2)	NA		
27. Trichloroethylene		✓	1	grab	8260B	2.0	4.0	0.03		
28. Vinyl Chloride	✓		1	grab	8260B	2.0	ND(2)	NA		
29. Acetone	✓		1	grab	8260B	10	ND(10)	NA		
30. 1,4 Dioxane										
31. Total Phenols	✓		1	grab	8270	300	ND (300)	NA		
32. Pentachlorophenol	✓		1	grab	SW8270C	20	ND(20)	NA		
33. Total Phthalates [6] (Phthalate esthers)	✓		1	grab	8270	3	ND(3)	NA		
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓		1	grab	SW8270C	10	ND(10)	NA		
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	grab	SW8270C	10	ND(10)	NA		
a. Benzo(a) Anthracene	✓		1	grab	SW8270C	10	ND(10)	NA		
b. Benzo(a) Pyrene	✓		1	grab	SW8270C	10	ND(10)	NA		
c. Benzo(b)Fluoranthene	✓		1	grab	SW8270C	10	ND(10)	NA		
d. Benzo(k) Fluoranthene	✓		1	grab	SW8270C	10	ND(10)	NA		
e. Chrysene	✓		1	grab	SW8270C	10	ND(10)	NA		

[6] The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (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)
f. Dibenzo(a,h) anthracene	✓		1	grab	SW8270C	10	ND(10)	NA		
g. Indeno(1,2,3-cd) Pyrene	✓		1	grab	SW8270C	10	ND(10)	NA		
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	grab	SW8270C	10	ND(10)	NA		
h. Acenaphthene	✓		1	grab	SW8270C	10	ND(10)	NA		
i. Acenaphthylene	✓		1	grab	SW8270C	10	ND(10)	NA		
j. Anthracene	✓		1	grab	SW8270C	10	ND(10)	NA		
k. Benzo(ghi) Perylene	✓		1	grab	SW8270C	10	ND(10)	NA		
l. Fluoranthene	✓		1	grab	SW8270C	10	ND(10)	NA		
m. Fluorene	✓		1	grab	SW8270C	10	ND(10)	NA		
n. Naphthalene-	✓		1	grab	SW8270C	10	ND(10)	NA		
o. Phenanthrene	✓		1	grab	SW8270C	10	ND(10)	NA		
p. Pyrene	✓		1	grab	SW8270C	10	ND(10)	NA		
37. Total Polychlorinated Biphenyls (PCBs)	✓		1	grab	8082	0.20	ND(0.2)	NA		
38. Antimony	✓		1	grab	SW7041	6.0	ND(6)	NA		
39. Arsenic	✓		1	grab	SW7060A	5.00	ND(5)	NA		
40. Cadmium	✓		1	grab	SW6010B	5.00	ND(5)	NA		
41. Chromium III										
42. Chromium VI	✓		1	grab	M3500-CR	50	ND(50)	NA		

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper	✓		1	grab	SW6010B	25.0	ND(25)	NA		
44. Lead	✓		1	grab	SW7421	5.00	ND(5)	NA		
45. Mercury	✓		1	grab	SW7470A	0.200	ND(0.2)	NA		
46. Nickel	✓		1	grab	SW6010B	40.0	ND(40)	NA		
47. Selenium	✓		1	grab	SW7740	5.0	ND(5)	NA		
48. Silver	✓		1	grab	SW6010B	7.00	ND(7)	NA		
49. Zinc										
50. Iron		✓	1	grab	SW6010B	100	1,440	10.6		
Other (describe):										

c) For discharges where **metals** are believed present, please fill out the following:

Step 1: Do any of the metals in the influent have a **reasonable potential** to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y_✓_ N____	If yes, which metals? Fe
Step 2: For any metals which have **reasonable potential** to 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? Metals: Fe DF: 8.52 (5-10) range DF=(3.23+24.3)/3.23=8.52	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 "Yes," list which metals:

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: See Figure 3						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank ✓	Air stripper	Oil/water separator	Equalization tanks	Bag filter	GAC filter
	Chlorination	Dechlorination	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 850 Maximum flow rate of treatment system 1,450 Design flow rate of treatment system 1,450						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): N/A						

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

a) Identify the discharge pathway:	Direct ✓	Within facility	Storm drain	River/brook	Wetlands	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: Direct discharge to Charles River following treatment stream, Charles River Segment MA72-08						
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. See attached Figures						
d) Provide the state water quality classification of the receiving water Class B,						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 24.3 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? Yes ✓ No If yes, for which pollutant(s)? Phosphorus, Fecal Matter Is there a TMDL? Yes ✓ No If yes, for which pollutant(s)? Phosphorus						

Note: Data provided in 5e was obtained using USGS stream status flow calculator tool.

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes____No__✓__
Has any consultation with the federal services been completed ? Yes___ No_✓_ or is consultation underway? Yes ____ No_✓_
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one):
a "no jeopardy" opinion? _____or written concurrence____ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?

b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
Yes_____ No__✓____ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes_____ No__✓____

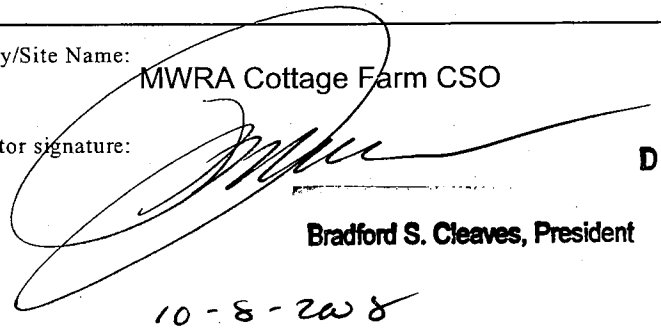
7. Supplemental information. :

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

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

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

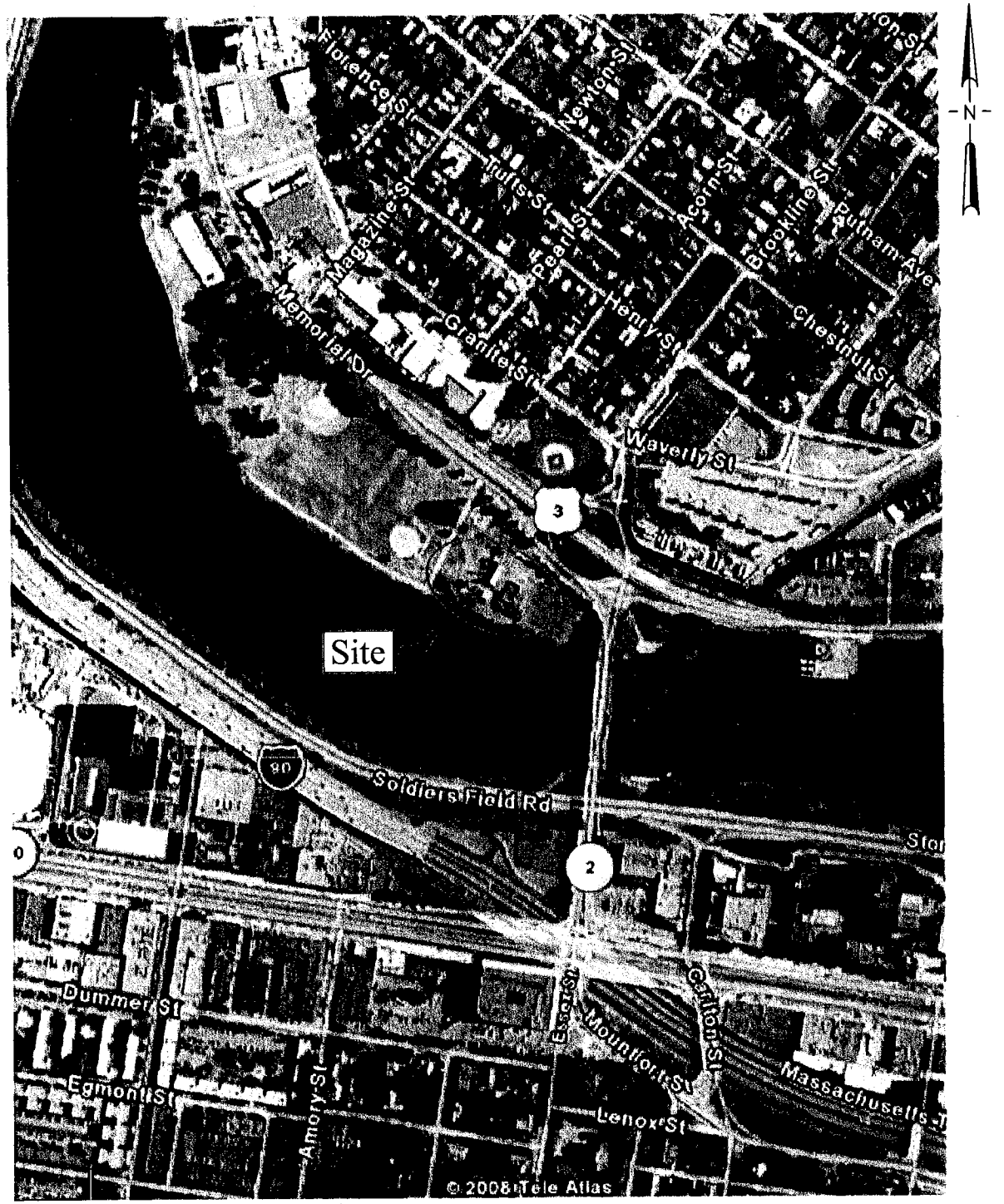
Facility/Site Name: MWRA Cottage Farm CSO

Operator signature: 

D & C Construction Co. Inc.

Title: Bradford S. Cleaves, President

Date: 10-8-2008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Fruit St
Pearl St
Acorn St
Brookline St
Putnam Ave
Magazine St
Memorial Dr
Granite St
Henry St
Chestnut St
Waverly St
3
90
Soldiers Field Rd
2
Dunmer St
Egmont St
Amory St
Mountfort St
Carlton St
Massachusetts
Lenox St
© 2008 Tele Atlas
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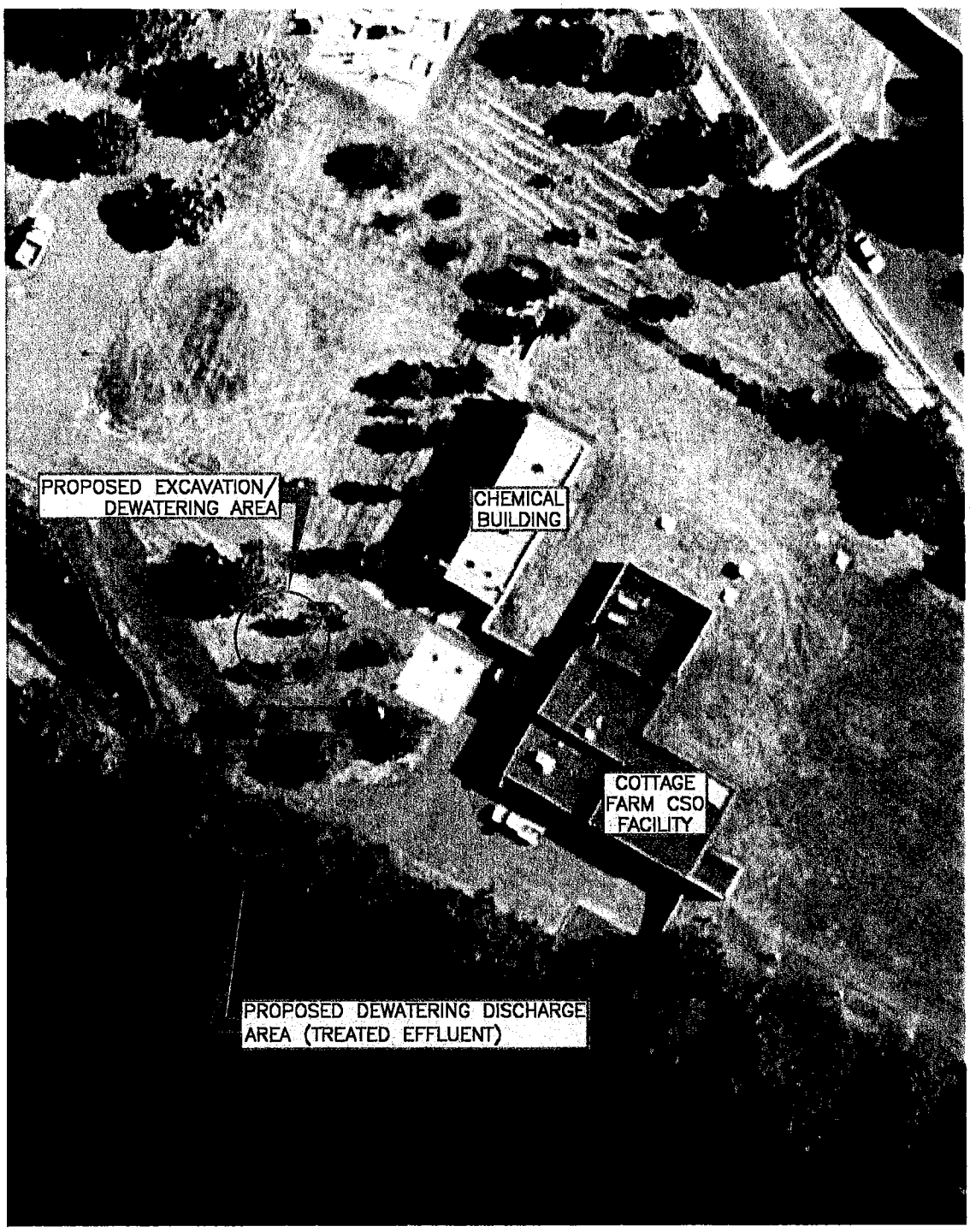

SOURCE:

GOOGLE EARTH

0 60 120

APPROX. SCALE IN FEET

CLIENT: D&C CONSTRUCTION				
PROJECT: COTTAGE FARM BROOKLINE CONNECTION CAMBRIDGE, MASSACHUSETTS				
TITLE: DEWATERING PROJECT LOCATION PLAN				
DESIGNED: LMG	DRAWN: STM	CHECKED: LMG	APPROVED: MCP	GeoInsight *Practical in Nature*
SCALE: 1" = 60'	DATE: 08/22/08	FILE NO.: 5591D001	PROJECT NO.: 5591-000	FIGURE NO.: 2

PLOT DATE: 8-22-08
FILE: I:\5591\5591D001.dwg

Table 8 - Summary of Chemical Testing Results: Groundwater Samples
Cottage Farm Brookline Connector and Inflow Controls Project
MWRA Design Contract No. 7009
Boston/Cambridge, Massachusetts

					Sample Location:	Cambridge	Boston
					Sample ID:	064640-GEI-1	064640-GEI-2
					Sample Date:	2/7/2007	2/7/2007
					Well Screen Interval (ft bgs):	4-44	4-44
Analyte	**Method**	**Unit**	**RGP Effluent Limits**	**RCGW-2**			
Volatile Organic Compounds (VOCs)	8260	ug/L					
Acetone			Monitor Only	50000		<10	<10
Benzene			5	2000		<1.0	<1.0
Carbon tetrachloride			4.4	2		<2.0	<2.0
Dibromoethane,1,2-			0.05	2		<2.0	<2.0
Dichlorobenzene,1,2-			600	2000		<2.0	<2.0
Dichlorobenzene,1,3-			320	2000		<2.0	<2.0
Dichlorobenzene,1,4-			5	200		<2.0	<2.0
Dichloroethane,1,1-			70	1000		<2.0	<2.0
Dichloroethane,1,2-			5	5		<2.0	<2.0
Dichloroethene, cis-1,2-			70	100		8.8	<2.0
Dichloroethene,1,1-			3.2	80		<1.0	<1.0
Ethylbenzene			NS	4000		<2.0	<2.0
Methyl tert-butyl ether			70	50000		<2.0	<2.0
Methylene chloride			4.6	10000		<5.0	<5.0
Naphthalene			20	1000		<10	<10
Propylbenzene, n-			NS	10000		<2.0	<2.0
Tetrachloroethene			5	50		<2.0	<2.0
Toluene			NS	4000		<2.0	<2.0
Trichloroethane,1,1,1-			200	4000		<2.0	<2.0
Trichloroethane,1,1,2-			5	900		<2.0	<2.0
Trichloroethene			5	30		4.0	<2.0
Vinyl chloride			2	2		<2.0	<2.0
Xylene, m/p-			NS	6000		<2.0	<2.0
Xylene, o-			NS	6000		<2.0	<2.0
Xylene, Total			NS	500		<2.0	<2.0
Total BTEX			100	NS		ND	ND
Semi-Volatile Organic Compounds (SVOCs)	8270	ug/L					
Acenaphthene			see Total Group II PAHs	5000		<10	<10
Acenaphthylene			see Total Group II PAHs	3000		<10	<10
Anthracene			see Total Group II PAHs	3000		<10	<10
Benz[a]anthracene			10	1000		<10	<10
Benzo[a]pyrene			5	500		<10	<10
Benzo[b]fluoranthene			10	400		<10	<10
Benzo[g,h,i]perylene			see Total Group II PAHs	3000		<10	<10
Benzo[k]fluoranthene			10	100		<10	<10
Bis(2-ethylhexyl)phthalate			6	30		<10	<10
Butyl benzyl phthalate			see Total Phthalates	NS		<10	<10
Chlorophenol,2-			see Total Phenols	40000		<10	<10
Chloro-3-methylphenol,4-			see Total Phenols	100000		<20	<20
Chrysene			10	3000		<10	<10
Dibenz[a,h]anthracene			10	40		<10	<10
Dichlorobenzene,1,2-			600	2000		<10	<10
Dichlorobenzene,1,3-			320	2000		<10	<10
Dichlorobenzene,1,4-			5	200		<10	<10
Dichlorophenol,2,4-			see Total Phenols	2000		<10	<10
Diethyl phthalate			see Total Phthalates	9000		<10	<10
Dimethyl phthalate			see Total Phthalates	50000		<10	<10
Dimethylphenol, 2,4-			see Total Phenols	40000		<10	<10
Di-n-butyl phthalate			see Total Phthalates	NS		<10	<10
Dinitrophenol,2,4-			see Total Phenols	20000		<20	<20
Di-n-octyl phthalate			see Total Phthalates	NS		<10	<10
Fluoranthene			see Total Group II PAHs	200		<10	<10
Fluorene			see Total Group II PAHs	3000		<10	<10
Indeno[1,2,3-cd]pyrene			10	100		<10	<10
Methylnaphthalene,2-			NS	3000		<10	<10
Methylphenol, 4-			see Total Phenols	50000		<10	<10
Methylphenol,2-			see Total Phenols	NS		<10	<10
Naphthalene			20	1000		<10	<10
Nitrophenol,2-			see Total Phenols	NS		<10	<10
Nitrophenol,4-			see Total Phenols	NS		<20	<20
Pentachlorophenol			1	200		<20	<20
Phenanthrene			see Total Group II PAHs	50		<10	<10
Phenol			see Total Phenols	2000		<10	<10
Pyrene			see Total Group II PAHs	20		<10	<10
Trichlorophenol,2,4,5-			see Total Phenols	3000		<10	<10
Trichlorophenol,2,4,6-			see Total Phenols	500		<10	<10
Total Group I PAHs			10	NS		ND	ND
Total Group II PAHs			100	NS		ND	ND
Total Phenols			300	NS		ND	ND
Total Phthalates			3	NS		ND	ND
Total Petroleum Hydrocarbons (TPH)	1664	ug/l					
Total Petroleum Hydrocarbons			5000	1000		<5000	<5000
Polychlorinated Biphenyls	8082	ug/l					
Aroclor 1016			0.5	0.3		<0.20	<0.20
Aroclor 1221			0.5	0.3		<0.20	<0.20
Aroclor 1232			0.5	0.3		<0.20	<0.20
Aroclor 1242			0.5	0.3		<0.20	<0.20
Aroclor 1248			0.5	0.3		<0.20	<0.20
Aroclor 1254			0.5	0.3		<0.20	<0.20
Aroclor 1260			0.5	0.3		<0.20	<0.20

Table 8 - Summary of Chemical Testing Results: Groundwater Samples
Cottage Farm Brookline Connector and Inflow Controls Project
MWRA Design Contract No. 7009
Boston/Cambridge, Massachusetts

					Sample Location:	Cambridge	Boston
					Sample ID:	064640-GEI-1	064640-GEI-2
					Sample Date:	2/7/2007	2/7/2007
					Well Screen Interval (ft bgs):	4-44	4-44
Analyte	Method	Unit	RGP Effluent Limits	RCGW-2			
Total Metals		ug/L					
Antimony	7041		5.6	8000		<6.0	<6.0
Arsenic	7060A		36	900		<5.00	<5.00
Barium	6010B		NS	50000		<200	<200
Cadmium	6010B		8.9	4		<5.00	<5.00
Chromium	6010B		150.3	300		<10.0	<10.0
Chromium (VI)	Method 3500-CR		50.3	300		<0.050	<0.050
Copper	6010B		3.7	100000		<25.0	<25.0
Iron	6010B		1000	NS		1440	2600
Lead	7421		8.5	10		<5.0	<5.0
Mercury	7470A		1.1	20		<0.200	<0.200
Nickel	6010B		8.2	200		<40.0	<40.0
Selenium	7740		71	100		<5.0	<5.0
Silver	6010B		2.2	7		<7.0	<7.0
Dissolved Metals		ug/L					
Antimony	7041		5.6	8000		<6.0	<6.0
Arsenic	7060A		36	900		<5.0	<5.0
Barium	6010B		NS	50000		<200	<200
Cadmium	6010B		8.9	4		<5.0	<5.0
Chromium	6010B		150.3	300		<10.0	<10.0
Chromium (VI)	Method 3500-CR		50.3	300		<0.050	<0.050
Copper	6010B		3.7	100000		<25.0	<25.0
Iron	6010B		1000	NS		764	917
Lead	7421		8.5	10		<5.0	<5.0
Mercury	7470A		1.1	20		<0.200	<0.200
Nickel	6010B		8.2	200		<40.0	<40.0
Selenium	7740		71	100		<5.0	<5.0
Silver	6010B		2.2	7		<7.0	<7.0
Other		ug/L					
Total Suspended Solids	E160.2		30000	NS		10000	5000
Cyanide, Total	E335.2		10	30		<10	<10
Total Residual Chlorine	4500		20	NS		<20	90

General Notes:

1. For a complete list of analytes see the laboratory data sheets.
2. '<' = The analyte was not detected at a concentration above the specified laboratory reporting limit.
3. MCP = 310 CMR 40.0000 Massachusetts Contingency Plan with revisions effective April 3, 2006.
4. Reportable Concentrations (e.g., RCGW-2), where identified, are cited from the MCP.
5. RCs = MCP Reportable Concentrations.
6. ND = The analyte was not detected above the laboratory reporting limit. See the laboratory data sheets for the laboratory
7. NT = The sample was not tested for this analyte.
8. NS = No standard has been established for this analyte.
9. ug/L = micrograms per liter.
10. ft bgs = feet below ground surface.
11. Values indicated in bold print and shown in boxes exceed the RCGW-2 standard.
12. RGP = Remediation General Permit.
13. The RGP effluent limit for Total Cyanide is 1 ug/L; however, the compliance limits are set by the EPA as equal to the minimum reporting limit listed in Appendix VI of the EPA RGP Notice of Intent Instructions (i.e., 10 ug/L).
14. The RGP effluent limit for each PAH within the Group I PAHs is 0.0038 ug/L; however, the compliance limits are set by the EPA as equal to the minimum reporting limit listed in Appendix VI of the EPA RGP Notice of Intent Instructions (i.e., 5 ug/L for benzo(a)pyrene and 10 ug/L for all others).
15. The effluent limit for Total PCBs is 0.000064 ug/l; however, the compliance limits are set by the EPA as equal to the minimum reporting limit listed in Appendix VI of the EPA RGP Notice of Intent Instructions (i.e., 0.5 ug/l).
16. The RGP effluent limit for Total Residual Chlorine is 7.5 ug/L; however, the compliance limits are set by the EPA as equal to the minimum reporting limit listed in Appendix VI of the EPA RGP Notice of Intent Instructions (i.e., 20 ug/L).
17. Where applicable, RGP effluent limits for saltwater are used, since discharge will ultimately be to Boston Harbor via the Charles River.