



Geotechnical Engineers

**NOTICE OF INTENT FOR DISCHARGE
UNDER MASSACHUSETTS
DEWATERING GENERAL PERMIT
MAG070000**

1075 MASSACHUSETTS AVENUE

CAMBRIDGE · MASSACHUSETTS

to

**U.S. Environmental Protection Agency,
Massachusetts Department of
Environmental Protection**

July 8, 2010

Project No. 5056



Geotechnical Engineers

July 8, 2010

U.S Environmental Protection Agency
Office of Ecosystem Protection (OEP06-3)
5 Post Office Square
Boston, MA 02109-3912

Attention: Dewatering GP Processing

Massachusetts Department of Environmental Protection
Division of Watershed Management
627 Main Street
Worcester, MA 01608

Attention: Mr. Robert D. Kubit

Reference: 1075 Massachusetts Avenue; Cambridge, Massachusetts
Notice of Intent for Construction Dewatering Discharge Under Massachusetts General
Discharge MAG070000

Ladies and Gentlemen:

On behalf of the Brighton Allston Properties LLC, McPhail Associates, Inc. has prepared the attached Notice of Intent for coverage under the Massachusetts Dewatering General Permit MAG070000 (DGP) for the temporary discharge of groundwater into the Charles River via a storm drain system foundation construction at the above referenced site. Refer to Figure 1 entitled Project Location Plan for the general site locus.

These services were performed and this permit application was prepared in accordance with our proposal dated May 21, 2010, and the subsequent authorization of Highland Development, Inc. who represents Brighton Allston Properties LLC. These services are subject to the limitations contained in **Attachment A**.

Located at the northwest corner of the intersection of Trowbridge Street and Massachusetts Avenue, the subject site occupies an area of approximately 8,954 square feet. The majority of the site is currently occupied by a one-story concrete and brick retail building which contains a single basement level. It is understood that the proposed redevelopment of the site consists of the demolition of the existing building and the construction of a five-story steel-framed structure with one level of parking below grade. The building is proposed to occupy nearly the full limits of the property, resulting in a footprint of approximately 8,750 square feet. The approximate limits of the subject site are shown on the attached **Figure 2**, Subsurface Exploration plan.

It is anticipated that dewatering will be required for construction of the proposed building foundation. In addition, rainwater is anticipated to accumulate within the basement excavation after periods of heavy precipitation. It is anticipated that dewatering by means of strategically located sumps and trenches should suffice during foundation construction.

Given that the proposed scope of construction includes excavation for the proposed building foundation, a sedimentation tank, 5,000-gallons in capacity, will be incorporated into the discharge system in order to meet allowable discharge limits for total suspended solids (TSS) established by the DGP. Given the tight

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Cambridge, Massachusetts 02140
617 / 868-1420
617 / 868-1423 (Fax)



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site constraints, it is anticipated that the sedimentation tank will need to be supported off the temporary excavation support system. It is estimated that continuous and intermittent groundwater discharge required during the foundation construction will be on the order of 35 to 50 gallons per minute (gpm). This estimate of discharge does not include surface runoff which will be removed from the excavation during the limited duration of a rain storm and shortly thereafter. A schematic of the treatment system is shown on **Figure 3**.

A review of available plans on the City of Cambridge on-line GIS database indicates that dedicated storm drains are located beneath Massachusetts Avenue and Trowbridge Street which bounds the southwestern and southeastern sides of the site, respectively. Specifically, a 30-inch diameter dedicated storm drain located beneath Massachusetts Avenue and a 12-inch diameter storm drain beneath Trowbridge Street flow south connecting to a 36-inch storm drain located beneath Mount Auburn Street. The Mount Auburn Street storm drain runs from east to west connecting to an 72-inch diameter storm drain beneath Dewolf Street. The 72-inch diameter storm drain crosses beneath Memorial Drive and discharges into the Charles River, a Class B water body. The location of the relevant catch basins with relation to the site are indicated on **Figure 2**. The flow path of the discharge is shown in plans provided by the City of Cambridge on-line GIS database which are included as **Figures 4A through 4E**.

To document the effectiveness of the above treatment system, samples of the discharge water will be obtained and tested for the presence of TSS prior to the start of discharge into the storm drain system. Should the pre-start up testing indicate that the levels of TSS in the effluent from the settling tank exceed the limits established under the DGP, additional filtration of the effluent will be implemented prior to discharge.

In conclusion, it is our opinion that groundwater at the site is acceptable for discharge into the storm drain system and ultimately into the Charles River under a Dewatering General Permit. Sampling and analysis of the effluent will be carried out in accordance with the terms of Dewatering General Permit.

Supplemental information attached to this letter in support of the DGP includes the following;

- Notice of Intent
Transmittal Form for Permit Application and Payment
- A summary of groundwater analysis (**Attachment B, Table 1**);
- A review of adjacent and nearby DEP-listed disposal sites (**Attachment C**);
- A review of Areas of Critical Concern and Endangered and Threatened Species (**Attachment D**);
and
- A review of National Historic Places (**Attachment E**).



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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, INC.

A handwritten signature in black ink, appearing to read "William J. Burns", is written over the company name.

William J. Burns

A handwritten signature in black ink, appearing to read "Chris M. Erickson", is written below the first signature.

Chris M. Erickson, P.E.

Enclosures

F:\WP5\REPORTS\5056-DGP.wpd

WJB/cme

cc: Highland Development, Inc. (Mr. Ben Rogan)

II. Suggested Notice of Intent (NOD) Form

1. General facility information. Please provide the following information about the facility.

a) Name of facility:		Mailing Address for the Facility: 1075 Massachusetts Avenue, Cambridge MA 02139	
b) Location Address of the Facility (if different from mailing address):		Facility Location longitude: 71.06 latitude: 42.22	Type of Business: Construction Site Facility SIC codes:
c) Name of facility owner: Brighton Allston Properties LLC		Owner's email: ben@highlanddevelopment.net	
Owner's Tel #: 781-393-0006		Owner's Fax #:	
Address of owner (if different from facility address) 1299 Beacon Street Brookline, MA 02446			
Owner is (check one): 1. Federal 2. State 3. Tribal 4. Private ☒ 4. Other (Describe) ☒			
Legal name of Operator, if not owner:			
Operator Contact Name: Ben Rogan			
Operator Tel Number: Fax Number:			
Operator's email:			
Operator Address (if different from owner) 121 Mystic Avenue, Medford, MA 02155			
d) Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached? ☒			
e) Check Yes or No for the following:			
1. Has a prior NPDES permit been granted for the discharge? Yes ☐ No ☒ If Yes, Permit Number: _____			
2. Is the discharge a "new discharge" as defined by 40 CFR Section 122.22? Yes ☐ No ☒			
3. Is the facility covered by an individual NPDES permit? Yes ☐ No ☒ If Yes, Permit Number _____			
4. Is there a pending application on file with EPA for this discharge? Yes ☐ No ☒ If Yes, date of submittal: _____			

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

- a) Name of receiving water into which discharge will occur: Charles River
State Water Quality Classification: B Freshwater: X Marine Water: _____
- b) Describe the discharge activities for which the owner/applicant is seeking coverage:
1. Construction dewatering of groundwater intrusion and/or storm water accumulation. See Attached Report
2. Short-term or long-term dewatering of foundation sumps.
3. Other.
- c) Number of outfalls 1
For each outfall:
- d) Estimate the maximum daily and average monthly flow of the discharge (in gallons per day - GPD). Max Daily Flow 72,000 GPD
Average Monthly Flow 1440000 GPD
- e) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 8.3 Min pH 6.5
- f) Identify the source of the discharge (i.e. potable water, surface water, or groundwater). If groundwater, the facility shall submit effluent test results, as required in Section 4.4.5 of the General Permit. Groundwater, See attached Report
- g) What treatment does the wastewater receive prior to discharge? Sedimentation settling tank, see attached report.
- h) Is the discharge continuous? Yes _____ No ☒ If no, is the discharge periodic (P) (occurs regularly, i.e., monthly or seasonally, but is not continuous all year) or intermittent (I) (occurs sometimes but not regularly) or both (B) B
If (P), number of days or months per year of the discharge _____ and the specific months of discharge _____;
If (I), number of days/year there is a discharge _____
Is the discharge temporary? Yes ☒ No _____
If yes, approximate start date of dewatering October 1, 2010 approximate end date of dewatering October 1, 2011
- i) Latitude and longitude of each discharge within 100 feet (See http://www.epa.gov/tri/report/siting_tool): Outfall 1: long. 71.06 lat. 42.22 ;
Outfall 2: long. _____ lat. _____; Outfall 3: long. _____ lat. _____.
- j) If the source of the discharge is potable water, please provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water and attach any calculation sheets used to support stream flow and dilution calculations _____ cfs
(See Appendix VII for equations and additional information)

MASSACHUSETTS FACILITIES: See Section 3.4 and Appendix 1 of the General Permit for more information on Areas of Critical Environmental Concern (ACEC):

k) Does the discharge occur in an ACEC? Yes _____ No ✓
If yes, provide the name of the ACEC:

3. Contaminant Information

- a) Are any pH neutralization and/or dechlorination chemicals used in the discharge? If so, include the chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC₅₀ in percent for aquatic organism(s)). See attached report
- b) Please report any known remediation activities or water-quality issues in the vicinity of the discharge. See attached report

4. Determination of Endangered Species Act Eligibility: Provide documentation of ESA eligibility as required at Part 3.4 and Appendices III and IV. In addition, respond to the following questions.

- a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes _____ No ✓
- b) Has any consultation with the federal services been completed? Yes _____ No ✓
- c) Is consultation underway? Yes _____ No ✓
- d) What were the results of the consultation with the U.S. Fish and Wildlife Service and/or NOAA 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.
- e) Which of the five eligibility criteria listed in Appendix 2, Section B (A,B,C,D, or E) have you met? A _____
- f) Please attach a copy of the most current federal listing of endangered and threatened species, found at USF&W website.

5. Documentation of National Historic Preservation Act requirements: Please respond to the following questions:

- a) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility site or in proximity to the discharge? Yes _____ No ✓
- b) Have any State or Tribal historic preservation officers been consulted in this determination? Yes _____ or No ✓ If yes, attach the results of the consultation(s).
- c) Which of the three National Historic Preservation Act requirements listed in Appendix 3, Section C (1,2 or 3) have you met? 1 _____

6. 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

7. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:

I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the dewatering system; (2) the discharge consists solely of dewatering and authorized pH adjustment and/or

dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product or finished product; (4) if the discharge of dewatering subsequently mixes with other permitted wastewater (i.e. stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for dewatering discharge; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) 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 Name: 1075 Massachusetts Avenue

Operator signature:



Title: President

Date: 6.28.10

Federal regulations require this application to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.