

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
PERMITS SECTION  
235 PROMENADE STREET  
PROVIDENCE, RHODE ISLAND 02908-5767

PUBLIC NOTICE OF PROPOSED PERMIT ACTIONS UNDER THE RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) PROGRAM WHICH REGULATES DISCHARGES INTO THE WATERS OF THE STATE UNDER CHAPTER 46-12 OF THE RHODE ISLAND GENERAL LAWS OF 1956, AS AMENDED.

DATE OF NOTICE: September 5, 2014

PUBLIC NOTICE NUMBER: PN14-04

**DRAFT RIPDES PERMITS**

RIPDES PERMIT NUMBER: **RI0023639**

NAME AND MAILING ADDRESS OF APPLICANT:

**Greenwich Mills, LLC**  
P.O. Box 1954  
East Greenwich, RI 02818

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**Greenwich Mills, LLC**  
42 Ladd Street  
Warwick, RI 02818

RECEIVING WATER: Greenwich Cove (Waterbody ID #: RI0007025E-05A)

RECEIVING WATER CLASSIFICATION: SB1

The facility which is the source of the wastewater discharge is engaged in treatment of contaminated groundwater. The discharge is composed of effluent from an elevator shaft sump. The wastewater is being treated with a bag filter and granular activated carbon to ensure that effluent meets water quality standards.

**FURTHER INFORMATION ABOUT THE DRAFT PERMITS:**

A statement of basis (describing the type of facility and significant factual, legal and policy questions considered in these permit actions) may be obtained at no cost by writing or calling DEM as noted below:

Samuel Kaplan, P.E., Senior Engineer  
Rhode Island Department of Environmental Management  
Office of Water Resources  
RIPDES Section

235 Promenade Street  
Providence, Rhode Island 02908-5767  
(401) 222-4700 ext. 7046

The administrative record containing all documents relating to these permit actions is on file and may be inspected, by appointment, at the DEM's Providence office mentioned above between 8:30 a.m. and 4:00 p.m., Monday through Friday, except holidays.

**PUBLIC COMMENT AND REQUEST FOR PUBLIC HEARING:**

Pursuant to Chapter 42-17.4 of the Rhode Island General Laws a public hearing has been scheduled to consider this permit if requested. Requests for a Public Hearing must be submitted in writing to the attention of Samuel Kaplan at the address indicated above. Notice should be taken that if DEM receives a request from twenty-five (25) people, a governmental agency or subdivision, or an association having no less than twenty-five (25) members on or before Monday, October 6, 2014, a public hearing will be held at the following time and place:

Thursday, October 9, 2014 at 4:00PM  
Room 280  
235 Promenade Street  
Providence, Rhode Island 02908

Interested persons should contact DEM to confirm if a hearing will be held at the time and location noted above.

235 Promenade Street is accessible to the handicapped. Individuals requesting communication assistance (assistive listening devices/readers/interpreters/captions) must notify the D.E.M. at the telephone number listed above or at 831-5508 (T.D.D.) 72 hours in advance of the hearing date.

Interested parties may submit comments on the permit actions and the administrative record to the address above no later than 4:00PM on Friday, October 10, 2014.

If, during the public comment period, significant new questions are raised concerning the permit, DEM may require a new draft permit or statement of basis or may reopen the public comment period. A public notice will be issued for any of these actions.

Any person, including the permittee/applicant, who believes these permit actions are inappropriate, must raise all reasonably ascertainable issues and submit all reasonably available arguments and factual grounds supporting their position, including all supporting material, by the close of the public comment period under Rule 41. The public comment period is from Friday, September 5 to Friday, October 10, 2014. Commenters may request a longer comment period if necessary to provide a reasonable opportunity to comply with these requirements. Comments should be directed to DEM as noted above.

**FINAL DECISION AND APPEALS:**

Following the close of the comment period, and after a public hearing, if such hearing is held, the Director will issue a final decision and forward a copy of the final decision to the permittee and each person who has submitted written comments or requested notice. Within 30 days following the notice of the final decision, any interested person may submit a request for a formal hearing in accordance with the requirements of Rule 49.

8/28/14

Date



Joseph B. Haberek, P.E.

Principal Sanitary Engineer

RIPDES Program, Office of Water Resources

Department of Environmental Management

AUTHORIZATION TO DISCHARGE UNDER THE  
RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Chapter 46-12 of the Rhode Island General Laws, as amended,

**Greenwich Mills, LLC**  
P.O. Box 1954  
East Greenwich, RI 02818

is authorized to discharge from a facility located at

42 Ladd Street  
Warwick, RI 02818

to receiving waters named

Greenwich Cove

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on \_\_\_\_\_.

This permit supersedes the permit issued on August 5, 2009.

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit consists of 8 pages in Part I including effluent limitations, monitoring requirements, etc. and 10 pages in Part II including General Conditions.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 2014.

**DRAFT**

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Angelo S. Liberti, P.E., Chief of Surface Water Protection  
Office of Water Resources  
Rhode Island Department of Environmental Management  
Providence, Rhode Island

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number(s) 100 (effluent from elevator sump groundwater treatment system).

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirement</u>	
	Quantity - lbs./day		Concentration - specify units			<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u> *( <u>Minimum</u> )	<u>Average Weekly</u> *( <u>Average</u> )	<u>Maximum Daily</u> *( <u>Maximum</u> )		
Flow	---	6048 gal/day				Continuous	Recorder
Tetrachloroethylene			---	ug/l	5 ug/l	2/Year	Grab
cis-1,2 -Dichloroethene			---	ug/l	5 ug/l	2/Year	Grab
pH			(6.5 S.U.)		(8.5 S.U.)	2/Year	Grab

() Values in parentheses represent the minimum and maximum values.

--- Signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

<sup>1</sup> Midpoint and effluent samples shall be taken at a minimum frequency of once every six (6) months, one sample January 1 – June 30 and one sample July 1 – December 31. Influent samples should be taken annually and analyzed using EPA methods 624 and 625.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Internal Outfall 100 (elevator shaft sump groundwater treatment system midpoint and effluent sample locations).

2.
  - a. The pH of the effluent shall not be less than 6.5 nor greater than 8.5 standard units at any time, unless these values are exceeded due to natural causes or as a result of the approved treatment processes.
  - b. The discharge shall not cause visible discoloration of the receiving waters.
  - c. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
3. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
  - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
    - (1) One hundred micrograms per liter (100 ug/l);
    - (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitro-phenol; and one milligram per liter (1 mg/l) for antimony;
    - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or
    - (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.
  - b. That any activity has occurred or will occur which would result in the discharge, on a non routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
    - (1) Five hundred micrograms per liter (500 ug/l);
    - (2) One milligram per liter (1 mg/l) for antimony;
    - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or
    - (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.
  - c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product any toxic pollutant which was not reported in the permit application.

4. The permittee shall conduct a primary carbon bed change out within 48 hours of detecting breakthrough of pollutants greater than the limits in Part I.A.1 at the midfluent sample point (between GAC units) of the elevator shaft sump groundwater treatment system (outfall 100) or at a minimum frequency of once every 12 months.
5. Midpoint (between GAC units) and effluent samples (after GAC units) shall be taken at a frequency of twice per year and analyzed for the pollutants listed in Part I.A.1. Influent samples (before the bag filters) shall be taken at a frequency of once per year and should be analyzed using EPA methods 624 and 625. The results of the influent analysis shall be submitted to the Department of Environmental Management with the last DMR for the monitoring year. All sampling and analysis shall be done in accordance with EPA Regulations, including 40 CFR, Part 136.
6. A flow log that includes a summary of total flow, operations and maintenance activities, and a description of all carbon replacement activities performed during the monitoring period must be submitted with the Discharge Monitoring Reports required under Part I.C. of the permit.
7. Discharge shall cease and the Office shall be notified immediately if any of the contaminants listed, are found in the effluent (after the GAC units) above the limits listed in Part I.A.1 of the permit. At a minimum, the notification shall include a summary of total flow, operation and maintenance activities, and any laboratory results from the last time the carbon filters were replaced to the present. Also, the notification shall include a description of the steps that have or will be taken to prevent future violations, as well as justification as to the appropriateness of such steps. Written documentation of the immediate notification required above shall be submitted to the Office within five (5) days. The discharge may recommence once steps have been taken to ensure the limits will not be exceeded again, and following approval by DEM. At a minimum, these steps shall include replacement of the first activated carbon filter.
8. This permit serves as the State's Water Quality Certificate for the discharges described herein.

**B. DETECTION LIMITS**

The permittee shall assure that all wastewater testing required by this permit, is performed in conformance with the method detection limits listed below. In accordance with 40 CFR Part 136, EPA approved analysis techniques, quality assurance procedures and quality control procedures shall be followed for all reports required to be submitted under the RIPDES program. These procedures are described in "Methods for the Determination of Metals in Environmental Samples" (EPA/600/4-91/010) and "Methods for Chemical Analysis of Water and Wastes" (EPA/600/4-79/020).

The report entitled "Methods for the Determination of Metals in Environmental Samples" includes a test which must be performed in order to determine if matrix interferences are present, and a series of tests to enable reporting of sample results when interferences are identified. Each step of the series of tests becomes increasingly complex, concluding with the complete Method of Standard Additions analysis. The analysis need not continue once a result which meets the applicable quality control requirements has been obtained.

If, after conducting the complete Method of Standard Additions analysis, the laboratory is unable to determine a valid result, the laboratory shall report "could not be analyzed". Documentation supporting this claim shall be submitted along with the monitoring report. If valid analytical results are repeatedly unobtainable, DEM may require that the permittee determine a method detection limit (MDL) for their effluent or sludge as outlined in 40 CFR Part 136, Appendix B.

Therefore, all sample results shall be reported as: an actual value, "could not be analyzed", less than the reagent water MDL, or less than an effluent or sludge specific MDL. The effluent or sludge specific MDL must be calculated using the methods outlined in 40 CFR Part 136, Appendix B. Samples which have been diluted to ensure that the sample concentration will be within the linear dynamic range shall not be diluted to the extent that the analyte is not detected. If this should occur the analysis shall be repeated using a lower degree of dilution.

When calculating sample averages for reporting on discharge monitoring reports (DMRs):

1. "could not be analyzed" data shall be excluded, and shall not be considered as failure to comply with the permit sampling requirements;
2. results reported as less than the MDL shall be reported as zeros in accordance with the DMR instructions.

**LIST OF TOXIC POLLUTANTS**

The following list of toxic pollutants has been designated pursuant to Section 307(a)(1) of the Clean Water Act. The Method Detection Limits (MDLs) represent the required Rhode Island MDLs.

<b>Volatiles - EPA Method 624</b>		<b>MDL ug/l (ppb)</b>	<b>Pesticides - EPA Method 608</b>		<b>MDL ug/l (ppb)</b>
1V	acrolein	10.0	18P	PCB-1242	0.289
2V	acrylonitrile	5.0	19P	PCB-1254	0.298
3V	benzene	1.0	20P	PCB-1221	0.723
5V	bromoform	1.0	21P	PCB-1232	0.387
6V	carbon tetrachloride	1.0	22P	PCB-1248	0.283
7V	chlorobenzene	1.0	23P	PCB-1260	0.222
8V	chlorodibromomethane	1.0	24P	PCB-1016	0.494
9V	chloroethane	1.0	25P	toxaphene	1.670
10V	2-chloroethylvinyl ether	5.0			
11V	chloroform	1.0	<b>Base/Neutral - EPA Method 625</b>		<b>MDL ug/l (ppb)</b>
12V	dichlorobromomethane	1.0	1B	acenaphthene *	1.0
14V	1,1-dichloroethane	1.0	2B	acenaphthylene *	1.0
15V	1,2-dichloroethane	1.0	3B	anthracene *	1.0
16V	1,1-dichloroethylene	1.0	4B	benzidine	4.0
17V	1,2-dichloropropane	1.0	5B	benzo(a)anthracene *	2.0
18V	1,3-dichloropropylene	1.0	6B	benzo(a)pyrene *	2.0
19V	ethylbenzene	1.0	7B	3,4-benzofluoranthene *	1.0
20V	methyl bromide	1.0	8B	benzo(ghi)perylene *	2.0
21V	methyl chloride	1.0	9B	benzo(k)fluoranthene *	2.0
22V	methylene chloride	1.0	10B	bis(2-chloroethoxy)methane	2.0
23V	1,1,2,2-tetrachloroethane	1.0	11B	bis(2-chloroethyl)ether	1.0
24V	tetrachloroethylene	1.0	12B	bis(2-chloroisopropyl)ether	1.0
25V	toluene	1.0	13B	bis(2-ethylhexyl)phthalate	1.0
26V	1,2-trans-dichloroethylene	1.0	14B	4-bromophenyl phenyl ether	1.0
27V	1,1,1-trichloroethane	1.0	15B	butylbenzyl phthalate	1.0
28V	1,1,2-trichloroethane	1.0	16B	2-chloronaphthalene	1.0
29V	trichloroethylene	1.0	17B	4-chlorophenyl phenyl ether	1.0
31V	vinyl chloride	1.0	18B	chrysene *	1.0
			19B	dibenzo (a,h)anthracene *	2.0
			20B	1,2-dichlorobenzene	1.0
			21B	1,3-dichlorobenzene	1.0
			22B	1,4-dichlorobenzene	1.0
			23B	3,3' -dichlorobenzidine	2.0
			24B	diethyl phthalate	1.0
			25B	dimethyl phthalate	1.0
			26B	di-n-butyl phthalate	1.0
			27B	2,4-dinitrotoluene	2.0
			28B	2,6-dinitrotoluene	2.0
			29B	di-n-octyl phthalate	1.0
			30B	1,2-diphenylhydrazine (as azobenzene)	1.0
			31B	fluoranthene *	1.0
			32B	fluorene *	1.0
			33B	hexachlorobenzene	1.0
			34B	hexachlorobutadiene	1.0
			35B	hexachlorocyclopentadiene	2.0
			36B	hexachloroethane	1.0
			37B	indeno(1,2,3-cd)pyrene *	2.0
			38B	isophorone	1.0
			39B	naphthalene *	1.0
			40B	nitrobenzene	1.0
			41B	N-nitrosodimethylamine	1.0
			42B	N-nitrosodi-n-propylamine	1.0
			43B	N-nitrosodiphenylamine	1.0
			44B	phenanthrene *	1.0
			45B	pyrene *	1.0
			46B	1,2,4-trichlorobenzene	1.0
<b>Acid Compounds - EPA Method 625</b>		<b>MDL ug/l (ppb)</b>			
1A	2-chlorophenol	1.0			
2A	2,4-dichlorophenol	1.0			
3A	2,4-dimethylphenol	1.0			
4A	4,6-dinitro-o-cresol	1.0			
5A	2,4-dinitrophenol	2.0			
6A	2-nitrophenol	1.0			
7A	4-nitrophenol	1.0			
8A	p-chloro-m-cresol	2.0			
9A	pentachlorophenol	1.0			
10A	phenol	1.0			
11A	2,4,6-trichlorophenol	1.0			
<b>Pesticides - EPA Method 608</b>		<b>MDL ug/l (ppb)</b>			
1P	aldrin	0.059			
2P	alpha-BHC	0.058			
3P	beta-BHC	0.043			
4P	gamma-BHC	0.048			
5P	delta-BHC	0.034			
6P	chlordan	0.211			
7P	4,4' -DDT	0.251			
8P	4,4' -DDE	0.049			
9P	4,4' -DDD	0.139			
10P	dieldrin	0.082			
11P	alpha-endosulfan	0.031			
12P	beta-endosulfan	0.036			
13P	endosulfan sulfate	0.109			
14P	endrin	0.050			
15P	endrin aldehyde	0.062			
16P	heptachlor	0.029			
17P	heptachlor epoxide	0.040			

## OTHER TOXIC POLLUTANTS

	MDL ug/l (ppb)
Antimony, Total	5.0
Arsenic, Total	5.0
Beryllium, Total	0.2
Cadmium, Total	1.0
Chromium, Total	5.0
Chromium, Hexavalent***	20.0
Copper, Total	20.0
Lead, Total	3.0
Mercury, Total	0.5
Nickel, Total	10.0
Selenium, Total	5.0
Silver, Total	1.0
Thallium, Total	5.0
Zinc, Total	20.0
Asbestos	**
Cyanide, Total	10.0
Phenols, Total***	50.0
TCDD	**
MTBE (Methyl Tert Butyl Ether)	1.0

\* Polynuclear Aromatic Hydrocarbons

\*\* No Rhode Island Department of Environmental Management (RIDEM) MDL

\*\*\* Not a priority pollutant

### NOTE:

The MDL for a given analyte may vary with the type of sample. MDLs which are determined in reagent water may be lower than those determined in wastewater due to fewer matrix interferences. Wastewater is variable in composition and may therefore contain substances (interferents) that could affect MDLs for some analytes of interest. Variability in instrument performance can also lead to inconsistencies in determinations of MDLs.

Method detection limits for these metals analyses were determined by the USEPA. They are not contrived values and should be obtainable with any satisfactory atomic absorption spectrophotometer. To insure valid data the analyst must analyze for matrix interference effects and if detected treat accordingly using either successive dilution matrix modification or method of Standard Additions (Methods for Chemical Analysis of Water and Wastes EPA-600/4-79/020).

To help verify the absence of matrix or chemical interference the analyst is required to complete specific quality control procedures. For the metals analyses listed above the analyst must withdraw from the sample two equal aliquots; to one aliquot add a known amount of analyte, and then dilute both to the same volume and analyze. The unspiked aliquot multiplied by the dilution factor should be compared to the original. Agreement of the results within 10% indicates the absence of interference. Comparison of the actual signal from the spiked aliquot to the expected response from the analyte in an aqueous standard should help confirm the finding from the dilution analysis. (Methods for Chemical Analysis of Water and Wastes EPA-600/4-79/020).

For Methods 624 and 625 the laboratory must on an ongoing basis, spike at least 5% of the samples from each sample site being monitored. For laboratories analyzing 1 to 20 samples per month, at least one spiked sample per month is required. The spike should be at the discharge permit limit or 1 to 5 times higher than the background concentration determined in Section 8.3.2, whichever concentration would be larger. (40 CFR Part 136 Appendix B Method 624 and 625 subparts 8.3.1 and 8.3.11).

**C. MONITORING AND REPORTING**

1. Monitoring

All monitoring required by this permit shall be done in accordance with sampling and analytical testing procedures specified in Federal Regulations (40 CFR Part 136).

2. Reporting

Monitoring results obtained during the previous six (6) months shall be summarized and reported on Discharge Monitoring Report (DMR) Forms, postmarked no later than the 15th day of the month following the completed monitoring period as follows:

<u>Period Testing to be Performed</u>	<u>Report Due No Later Than</u>	<u>Results Submitted on DMR for</u>
January 1 - June 30	July 15	January 1 - June 30
July 1 - December 31	January 15	July 1 - December 31

A signed copy of these, and all other reports required herein, shall be submitted to:

RIPDES Program  
Rhode Island Department of Environmental Management  
235 Promenade Street  
Providence, Rhode Island 02908

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
235 PROMENADE STREET  
PROVIDENCE, RHODE ISLAND 02908-5767

STATEMENT OF BASIS

RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) PERMIT TO DISCHARGE TO WATERS OF THE STATE

RIPDES PERMIT NO.

**RI0023639**

NAME AND ADDRESS OF APPLICANT:

**Greenwich Mills, LLC**  
P.O. Box 1954  
East Greenwich, RI 02818

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

42 Ladd Street  
Warwick, RI 02818

RECEIVING WATER:

**Greenwich Cove (Waterbody ID #: RI0007025E-05A)**

CLASSIFICATION:

**SB1**

**I. Proposed Action, Type of Facility, and Discharge Location**

The above named applicant has applied to the Rhode Island Department of Environmental Management (DEM) for reissuance of an individual RIPDES Permit to discharge into the designated receiving water. The applicant's discharge consists of effluent from a groundwater treatment system associated with contaminated groundwater infiltrating into an elevator shaft sump. The primary components of this treatment system include a submersible pump, a bag filter, and two (2) 200-pound granular activated carbon (GAC) vessels in series. The discharge is to an existing catch basin located at 42 Ladd Street, which discharges to Greenwich Cove. Appendix A includes a summary of historic effluent data.

**II. Permit and Administrative Compliance Order Limitations and Conditions**

The effluent limitations, monitoring requirements, and any implementation schedule (if required) may be found in the draft permit.

**III. Permit Basis and Explanation of Effluent Limitation Derivation**

Cardno ATC submitted a RIPDES permit reapplication to the DEM on February 28, 2014, on behalf of Greenwich Mills, LLC, for the discharge of treated groundwater that collects in an elevator shaft sump at 42 Ladd Street, Warwick, Rhode Island. The elevator shaft is in a former mill building that was redeveloped and is now leased to various office tenants and artists. None of the individual tenant's operations have the potential to impact the elevator shaft's sump.

Due to contaminated groundwater seeping into the sump, there are low levels of VOCs and SVOCs in the sump water. The 2014 application indicated that the following pollutants were detected in sampling of the sump water:

Table 1 lists the pollutants detected and their corresponding concentrations:

<b>Contaminant</b>	<b>max. influent conc., ug/L</b>
Tetrachloroethylene	3.2
Benzo(a)Anthracene	0.08
Benzo(a)Pyrene	0.08
Chrysene	0.06
Phenanthrene	0.14
Pyrene	0.15
Benzoic Acid	8.2
cis-1,2-Dichloroethene	3.0

A previous permittee installed an activated carbon treatment system for the elevator sump discharge in conjunction with the permit issued on March 17, 2004. The system includes a submersible pump, a bag filter and two 200 pound carbon vessels arranged in series prior to discharge into Greenwich Cove (see Figure 1A - treatment system layout and Figure 1B - the site location map for details).

Outfall 100 discharges to Greenwich Cove in the segment defined as water body ID number RI0007025E-05A. This segment is located in the Town of East Greenwich and borders the City of Warwick. This segment is classified as a Class SB1 water body according to the RI Water Quality Regulations. Class B waters are designated for fish and wildlife habitat and primary and secondary contact recreational activities. They shall be suitable for compatible industrial processes and cooling, hydropower, aquacultural uses, navigation, and irrigation and other agricultural uses. These waters shall have good aesthetic value. The 2012 303(d) list of impaired water bodies lists Greenwich Cove as impaired for Total Nitrogen, Dissolved Oxygen, and Fecal Coliform. Although the receiving water is impaired for Total Nitrogen, Dissolved Oxygen, and Fecal Coliform, the discharge from the elevator sump does not contain these pollutants. Therefore, limits for these pollutants are not required.

Development of Rhode Island Pollutant Discharge Elimination System (RIPDES) permit limitations is a multi-step process consisting of the following steps: calculating allowable water quality-based discharge levels based on in-stream criteria, background data and available dilution; identifying applicable technology-based limits; assigning appropriate Best Professional Judgement (BPJ) limits; and setting the most stringent limits as the final limits. The following paragraphs outline the basis for each of the permit limitations.

DEM is required to consider technology and water quality requirements when developing permit effluent limits. Technology based treatment requirements represent the minimum level of control that must be imposed under Section 402 and 301(b) of the Clean Water Act (CWA) (see 40 CFR 125 Subpart A) to meet Best Practicable Control Technology Currently Available (BPT), Best Conventional Control Technology (BCT) for conventional pollutants, and Best Available Technology Economically Achievable (BAT) for toxic pollutants. In the absence of technology based guidelines, DEM is authorized to use Best Professional Judgement (BPJ) to establish effluent limitations, in accordance with Section 402(a)(1) of the CWA. Since the Environmental Protection Agency has not promulgated technology-based standards for this discharge, DEM developed BPJ limits.

Granular activated carbon technology is proven to be able to remove VOCs and SVOCs to a concentration below the Method Detection Limit (MDL). However, experience with systems of mixed contaminants has shown that intermittent slugs of more easily retained contaminants may enter the system and displace less easily adsorbed contaminants like SVOCs. Also, laboratory and field contamination or instrument noise could cause false positives at the method detection limit (MDL). As a result, based on BPJ the maintenance of limits of five (5) times the MDL for

Tetrachloroethylene and cis-1,2-Dichloroethene are appropriate, and would help to prevent unnecessary non-compliance due to field and/or laboratory contamination. The BPJ limit of 5 times the MDL is more stringent than the lower of either the chronic salt water aquatic life criteria or the human health criteria for aquatic organism consumption. Therefore, these BPJ limits are protective of water quality. Appendix B includes a table with this comparison for all pollutants.

Greenwich Mills, LLC submitted a permit reapplication on February 28, 2014 which provided results of carbon breakthrough calculations which stated that the existing treatment system was sufficient to remove contaminants present in the influent. Permit limitations were not established for Benzo(a)Anthracene, Benzo(a)Pyrene, Chrysene, Phenanthrene, and Pyrene due to these contaminants having been detected at levels below the MDLS for those contaminants specified in Part I.B of the permit.

Sampling requirements were eliminated for Ethylbenzene, Napthalene, n-Propylbenzene, Toluene, 1,2,4 Trimethylbenzene, and Xylenes because these contaminants were not detected at levels above MDL's in conjunction with influent sampling under the permit or in annual scans.

The pH limits for outfall 100, which was the pH limit for outfall 001 in the 2004 permit, are equivalent to the Water Quality Criteria from the Rhode Island Water Quality Regulations Table 2.8.D.(3). Class-Specific Criteria–Sea Waters, Class SB1 adopted in accordance with Chapter 42-35 pursuant to Chapters 46-12 and 42-17.1 of the Rhode Island General Laws of 1956, as amended.

The requirements set forth in this permit are from the State's Water Quality Regulations and the State's Regulations for the Rhode Island Pollutant Discharge Elimination System, both filed pursuant to RIGL Chapter 46-12, as amended. DEM's primary authority over the permit comes from EPA's delegation of the program in September 1984 under the Federal Clean Water Act.

The effluent monitoring requirements have been specified in accordance with RIPDES regulations as well as 40 CFR 122.41 (j), 122.44 (I), and 122.48 to yield data representative of the discharge.

The remaining general and specific conditions of the permit are based on the RIPDES regulations as well as 40 CFR Parts 122 through 125 and consist primarily of management requirements common to all permits.

#### **IV. Comment Period, Hearing Requests, and Procedures for Final Decisions**

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the Rhode Island Department of Environmental Management, Office of Water Resources, 235 Promenade Street, Providence, Rhode Island, 02908-5767. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to the Rhode Island Department of Environmental Management. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty (30) days public notice whenever the Director finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Director will respond to all significant comments and make these responses available to the public at DEM's Providence Office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Director will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within thirty (30) days following the notice of the final permit decision any interested person may submit a request for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of Rule 49 of the Regulations for the Rhode Island Pollutant Discharge Elimination System.

V. **DEM Contact**

Additional information concerning the permit may be obtained between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday, excluding holidays from:

Samuel Kaplan, P.E.  
Office of Water Resources  
Department of Environmental Management  
235 Promenade Street  
Providence, Rhode Island 02908  
Telephone: (401) 222-4700, ext. 7046

8/28/14  
Date

  
Joseph B. Haberek, P.E.  
Principal Sanitary Engineer  
Office of Water Resources  
Department of Environmental Management

## Appendix A - Historical Discharge Levels

Data is from December of 2009 to April of 2014.

**DESCRIPTION OF DISCHARGE:** Effluent from elevator sump groundwater treatment system.

**DISCHARGE:** 100

AVERAGE EFFLUENT CHARACTERISTICS AT POINT OF DISCHARGE OF SELECTED POLLUTANTS:

<b>PARAMETER</b>	<b>AVERAGE</b>	<b>MAXIMUM</b>
1,2,4-Trimethylbenzene (ug/L)	below detection	below detection
cis-1,2-Dichloroethene (ug/L)	below detection	below detection
Ethylbenzene (ug/L)	below detection	below detection
Flow (gal/day)	3093.75	3093.75
Naphthalene (ug/L)	below detection	below detection
n-Propylbenzene (ug/L)	below detection	below detection
pH	6.75	6.75
Tetrachloroethylene (ug/L)	below detection	below detection
Toluene (ug/L)	below detection	below detection
Xylene (ug/L)	below detection	below detection

**Appendix B – Permit Parameters Spreadsheet**

parameter	MDL, ug/L	5*MDL, ug/L	chronic saltwater aquatic life criteria (ug/L)	aquatic organism consumption human health criteria (ug/L)	monitored in 2009 permit?	exceeded MDLs in effluent? (2009 permit)	exceeded MDLs in influent? (2009 permit?)	found in the intake? (2014 permit ap)	annual scans (Tab. 2 2014 permit application, )	2014 permit ap value intake, ug/L (Form 2C, Part V.B. & V.C.)	reasonable potential?
Tetrachloroethylene	1.0	5.0	NC	33	y	n	y	y	3.2	1.6	y
cis-1,2-Dichloroethene	0.5	2.5	NL	NL	y	n	n	y	3.0	NA	y
Benzoic Acid	50	250	NL	NL	n	NA	NA	y	8.2	NA	n
Ethylbenzene	1.0	5.0	NC	2100	y	n	n	n	NA	NA	NA
Naphthalene	1.0	5.0	NC	NC	y	n	n	n	NA	NA	NA
n-Propylbenzene	5	25	NL	NL	y	n	n	n	NA	NA	NA
Toluene	1.0	5.0	NC	15000	y	n	n	n	NA	NA	NA
1,2,4-Trimethylbenzene	1.0*	5.0	NL	NL	y	n	n	n	NA	NA	NA
Xylenes	0.5	2.5	NC**	NL**	y	n	n	n	NA	NA	NA
Benzo(a)Anthracene	2.0	10.0	NL	NL	n	NA	NA	y	0.08	0.05	n
Benzo(a)Pyrene	2.0	10.0	NL	NL	n	NA	NA	y	0.08	0.07	n
Chrysene	1.0	5.0	NL	NL	n	NA	NA	y	0.06	0.06	n
Phenanthrene	1.0	5.0	NL	NL	n	NA	NA	y	0.14	0.08	n
Pyrene	1.0	5.0	NC	4000.0	n	NA	NA	y	0.15	0.33	n

\* = RL listed in Appendix B of the 2014 permit application, parameter not listed in NPDES MDL documents

\*\* = Xylene

NC = no criteria

NL = not listed

NA = not applicable or not listed on application

**Figure 1A: Treatment System Layout**

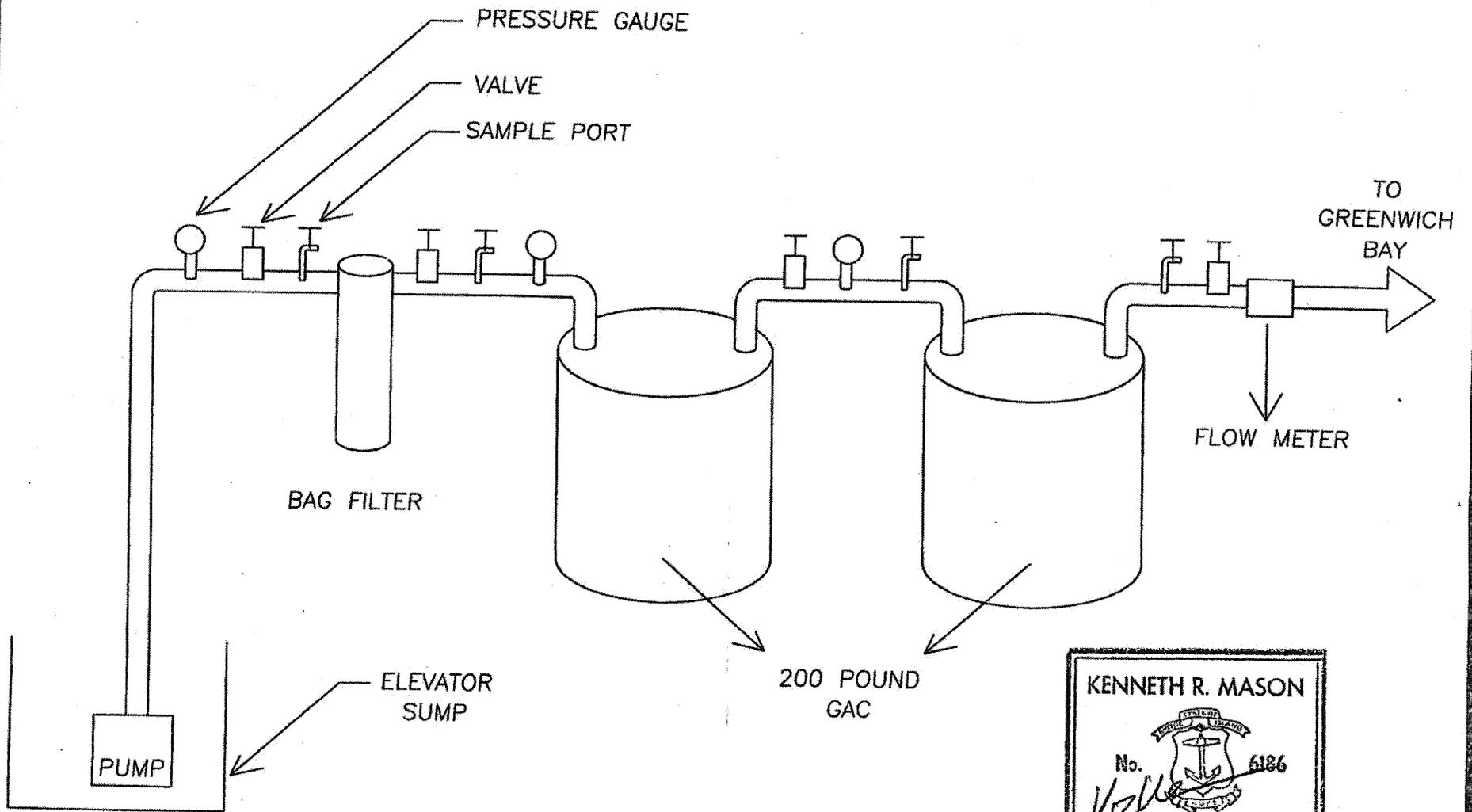


FIGURE 2A

NOT TO SCALE

ELEVATOR SUMP DISCHARGE  
TREATMENT SYSTEM

DATE: 10/18/03  
LE JOB NO. 01652  
BY: WK

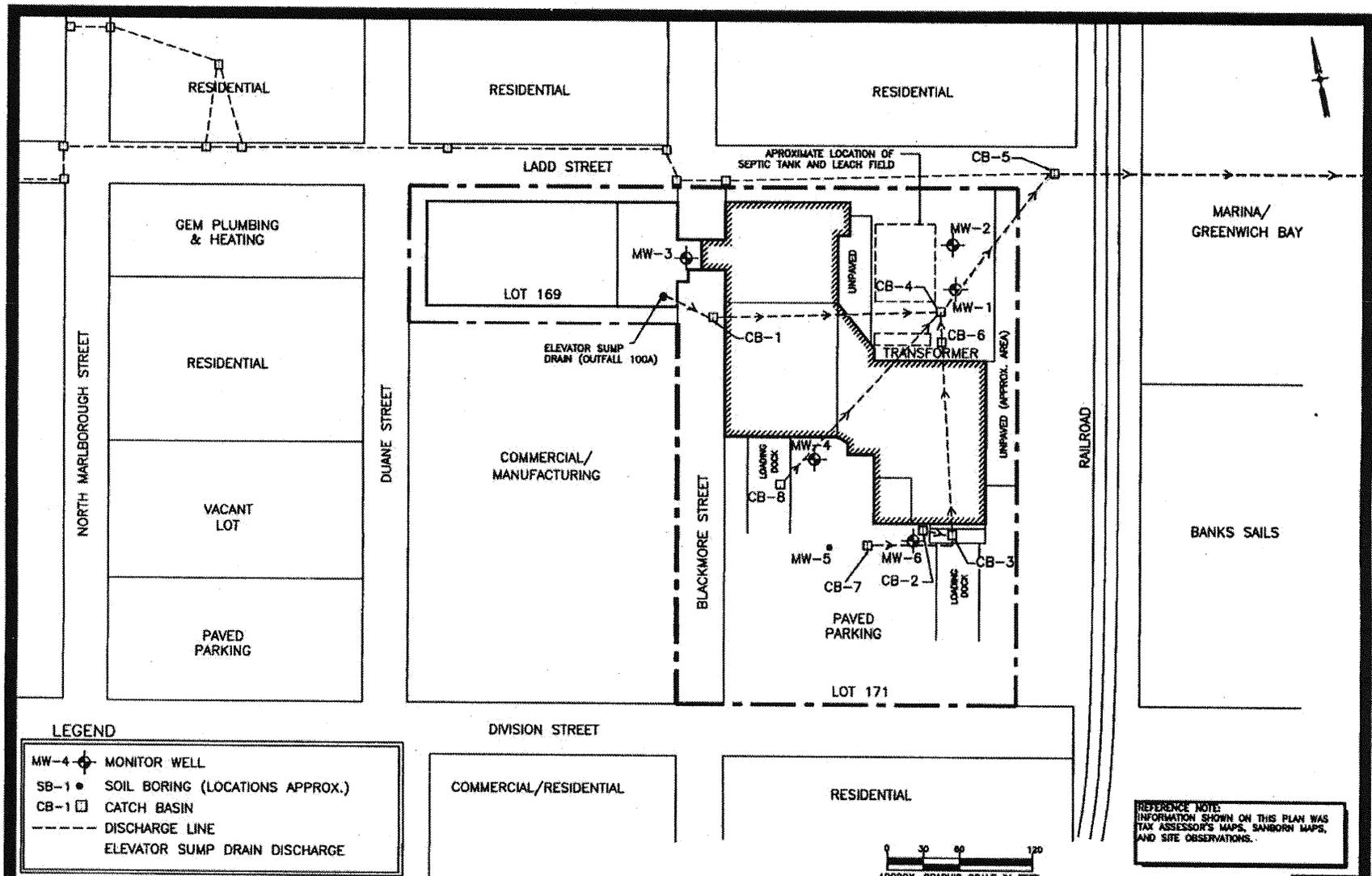
DWG: 01652C  
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Lincoln Environmental, Inc.  
Smithfield, Rhode Island (401)232-3353

42 LADD STREET  
WARWICK, RI

**Figure 1B: Site Location Map**



**SITE SKETCH**

ATC JOB NO. 301.36062.0001  
 DRAWN: 11/2/02  
 REV: 2/11/09

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DWG: SITEPLAN  
 BY: TM  
 BY: JAM



42 LADD STREET  
 WARWICK, RI