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 _____, 20__.

This permit supersedes the permit issued on October 21, 2014.

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 _____, 2020.

DRAFT

_____
Angelo S. Liberti, P.E., Administrator for 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:

Effluent Characteristic	Discharge Limitations					Monitoring Requirement	
	Quantity - lbs./day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly *(Minimum)	Average Weekly *(Average)	Maximum Daily *(Maximum)	Measurement Frequency	Sample Type
Flow	--- gpm	6048 gal/day				Continuous	Recorder
Tetrachloroethylene			--- ug/l		5 ug/l	2/Year	Grab
cis-1,2 –Dichloroethene			--- ug/l		2.5 ug/l	2/Year	Grab
Bis(2-Ethyl-hexyl)Phthalate			--- 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.

[1] 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 the RICR (Rhode Island Code of 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 the RICR (Rhode Island Code of 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

All analyses of parameters under this permit must comply with the *National Pollutant Discharge Elimination System (NPDES): Use of Sufficiently Sensitive Test Methods for Permit Applications and Reporting* rule. Only sufficiently sensitive test methods may be used for analyses of parameters under this permit. The permittee shall assure that all testing required by this permit, is performed in conformance with methods listed in 40 CFR 136. In accordance with 40 CFR 136, EPA approved analysis techniques, quality assurance procedures and quality control procedures shall be followed for all reports required to be submitted under the Rhode Island Pollutant Discharge Elimination System (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).

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 136, Appendix B.

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 included as zeros in accordance with the DEM's DMR Instructions, provided that all appropriate EPA approved methods were followed.

Therefore, all sample results shall be reported as: an actual value, "could not be analyzed", or zero. The effluent or sludge specific MDL must be calculated using the methods outlined in 40 CFR 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.

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.

Volatiles - EPA Method 624		MDL ug/l (ppb)
1V	acrolein	10.0
2V	acrylonitrile	5.0
3V	benzene	1.0
5V	bromoform	1.0
6V	carbon tetrachloride	1.0
7V	chlorobenzene	1.0
8V	chlorodibromomethane	1.0
9V	chloroethane	1.0
10V	2-chloroethylvinyl ether	5.0
11V	chloroform	1.0
12V	dichlorobromomethane	1.0
14V	1,1-dichloroethane	1.0
15V	1,2-dichloroethane	1.0
16V	1,1-dichloroethylene	1.0
17V	1,2-dichloropropane	1.0
18V	1,3-dichloropropylene	1.0
19V	ethylbenzene	1.0
20V	methyl bromide	1.0
21V	methyl chloride	1.0
22V	methylene chloride	1.0
23V	1,1,2,2-tetrachloroethane	1.0
24V	tetrachloroethylene	1.0
25V	toluene	1.0
26V	1,2-trans-dichloroethylene	1.0
27V	1,1,1-trichloroethane	1.0
28V	1,1,2-trichloroethane	1.0
29V	trichloroethylene	1.0
31V	vinyl chloride	1.0

Acid Compounds - EPA Method 625		MDL ug/l (ppb)
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

Pesticides - EPA Method 608		MDL ug/l (ppb)
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	chlordane	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

Pesticides - EPA Method 608		MDL ug/l (ppb)
18P	PCB-1242	0.289
19P	PCB-1254	0.298
20P	PCB-1221	0.723
21P	PCB-1232	0.387
22P	PCB-1248	0.283
23P	PCB-1260	0.222
24P	PCB-1016	0.494
25P	toxaphene	1.670

Base/Neutral - EPA Method 625		MDL ug/l (ppb)
1B	acenaphthene *	1.0
2B	acenaphthylene *	1.0
3B	anthracene *	1.0
4B	benzidine	4.0
5B	benzo(a)anthracene *	2.0
6B	benzo(a)pyrene *	2.0
7B	3,4-benzofluoranthene *	1.0
8B	benzo(ghi)perylene *	2.0
9B	benzo(k)fluoranthene *	2.0
10B	bis(2-chloroethoxy)methane	2.0
11B	bis(2-chloroethyl)ether	1.0
12B	bis(2-chloroisopropyl)ether	1.0
13B	bis(2-ethylhexyl)phthalate	1.0
14B	4-bromophenyl phenyl ether	1.0
15B	butylbenzyl phthalate	1.0
16B	2-chloronaphthalene	1.0
17B	4-chlorophenyl phenyl ether	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

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
Iron, Total	50
Lead, Total	0.2
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
Phosphorus,Total	10
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.

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 40 CFR Part 136 unless other procedures are explicitly required in the permit.

2. Reporting

Unless otherwise specified in this permit, the permittee shall submit reports, requests, and information and provide notices in the manner described in this section.

A. Submittal of DMRs Using NetDMR

The permittee shall continue to submit its monitoring data in discharge monitoring reports (DMRs) electronic to DEM using NetDMR no later than the 15th day of the month after the end of the half year, i.e. January 15 and July 15. When the permittee submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to DEM.

B. Submittal of Reports as NetDMR Attachments

Unless otherwise specified in this permit, the permittee must submit electronic copies of documents in NetDMR that are directly related to the DMR. These include the following:

- DMR Cover Letters
- Below Detection Limit summary tables

C. Submittal of Reports in Hard Copy Form

The following notifications and reports shall be submitted as hard copy with a cover letter describing the submission. These reports shall be signed and dated originals submitted to DEM.

A. Written notifications required under Part II
B. Notice of unauthorized discharges

This information shall be submitted to DEM at the following address:

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

D. Verbal Reports and Verbal Notifications

Any verbal reports or verbal notifications, if required in Parts I and/or II of this permit, shall be made to the DEM. This includes verbal reports and notifications which require reporting within 24 hours. (See Part II.(I)(5) General Requirements for 24-hour reporting) Verbal reports and verbal notifications shall be made to DEM at (401) 222-4700 or (401) 222-3070 at night

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:

Greenwich Mills, LLC
42 Ladd Street
Warwick, RI 02818

RECEIVING WATER: Greenwich Cove

(**WBID:** RI0007025E-05A)

CLASSIFICATION: **SB1**

Fact Sheet Table of Contents

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

The above-named applicant has applied to the Rhode Island Department of Environmental Management for reissuance of a RIPDES Permit to discharge into the designated receiving water. The facility is engaged in the treatment of contaminated groundwater infiltrating into an elevator shaft sump. The discharge consists of treated groundwater from a groundwater treatment system consisting of a submersible pump, a bag filter, and two (2) 200-pound granular activated carbon (GAC) vessels in series. The system discharges to an existing catch basin located at 42 Ladd Street, which discharges to Greenwich Cove.

II. Description of Discharge

A quantitative description of the discharge in terms of significant effluent parameters based on DMR data from January 2015 to June 2019 is shown on Appendix A.

III. Permit Limitations and Conditions

The final effluent limitations and monitoring requirements may be found in the permit.

IV. Permit Basis and Explanation of Effluent Limitation Derivation

Variances, Alternatives, and Justifications for Waivers of Application Requirements

No variances or alternatives to required standards were requested or granted. No waivers were requested or granted for any application requirements per 40 CFR §122.21(j) or (q).

Facility Description

Greenwich Mills, LLC is a former mill building located at 42 Ladd Street in Warwick, RI. The mill building has been redeveloped and is now leased to various office tenants and artists. The discharge to Greenwich Cove consists of treated groundwater from an elevator shaft sump at the building. 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 2019 application indicated that the following pollutants were detected in sampling of the sump water. Values presented in the table represent the maximum value of each of the following contaminants based on (1) treatment system intake values, (2) annual scans of treatment system intake, (3) the facility's 2019 RIPDES permit application, and (4) and additional scan performed by the facility in 2019:

Table 1 lists the pollutants detected and their corresponding influent concentrations:

Contaminant	max. influent conc., ug/L
Tetrachloroethylene	1.4
Bis(2-Ethyl-hexyl)Pthalalte	1.9
cis-1,2-Dichloroethene	3
Chloroform	0.35

An activated carbon treatment system has been installed for the elevator sump discharge. 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).

Greenwich Mills' most recent RIPDES permit, authorizing discharges from the above-mentioned facility, was issued on October 21, 2014. This permit became effective on January 1, 2015 and expired on January 1, 2020. The facility's consultant, ATC, submitted an application for permit reissuance to the DEM on April 4, 2019. In responses to DEM's comments on May 30, 2019 and June 4, 2019, the facility submitted additional information on June 3, 2019 and July 2, 2019

respectively. On July 15, 2019 the DEM issued an application complete letter to the facility. In accordance with the Rhode Island Pollutant Discharge Elimination System Regulations (RIPDES Regulations - 250-RICR-150-10) Part 1.13, the facility's January 1, 2015 permit remains in effect since the DEM has determined that a timely and complete permit application was submitted. Once this permit is reissued, it will supersede the January 1, 2015 permit.

Receiving Water Description

The water body segment for Greenwich Cove is RI0007025E-05A and is located in East Greenwich and Warwick, RI. This segment is delineated by Greenwich Cove south of Long Point. This segment is listed on DEM's 2016 303(d) impaired waters list for not supporting Fish and Wildlife Habitat due to Nitrogen and Dissolved Oxygen. Given that Greenwich Mills does not discharge Nitrogen, Biological Oxygen Demand, or Chemical Oxygen Demand, the facility would not be the cause of the impairment, therefore limits for these pollutants are not required in the permit. Permit limits for Greenwich Mills were developed to be consistent with the Rhode Island Water Quality Regulations (250-RICR-150-05-1). This segment of Greenwich Cove has a Waterbody Classification of SB1. SB1 waters are designated for primary and secondary contact recreational activities and fish and wildlife habitat. 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.

Permit Limit Development

The requirements set forth in this permit are from the Rhode Island Water Quality Regulations (250-RICR-150-05-1) and the Rhode Island Pollutant Discharge Elimination System Regulations (RIPDES Regulations - 250-RICR-150-10), both filed pursuant to RIGL Chapter 46-12, as amended. RIDEM's primary authority over the permit comes from EPA's delegation of the program in September 1984 under the Federal Clean Water Act (CWA).

Development of RIPDES permit limitations is a multi-step process consisting of: determining if Federal effluent guidelines apply; calculation of allowable water quality-based discharge levels based on background data and available dilution; assigning appropriate Best Professional Judgement (BPJ) based limits; comparing existing and proposed limits; comparing discharge data to proposed limits; performing an antidegradation/antibacksliding analysis to determine the final permit limits; and developing interim limits as appropriate.

Water quality criteria are comprised of numeric and narrative criteria. Numeric criteria are scientifically derived ambient concentrations developed by EPA or the State for various pollutants of concern to protect human health and aquatic life. Narrative criteria are statements that describe the desired water quality goal. A technology-based limit is a numeric limit, which is determined by examining the capability of a treatment process to reduce or eliminate pollutants.

<u>Conventional Pollutant Permit Limitations</u>

Flow Limits

The facility's maximum flow rate limit of 6048 gallons per day was developed by DEM in 2009. The value of 6048 gallons per day was established using a flow rate of 4.2 gallons per minute (which is approximately 150% of the treatment system's 2.81 gallons per minute maximum flow rate) and a 24 hour per day discharge.

pH

The pH limits for outfall 100, which are the same as the pH limits for outfall 001 in the 2015 permit, are equivalent to the pH criteria from the table from the Water Quality Criteria from the Rhode Island Water Quality Regulations (250-RICR-150-05-1.10.E) "Class-Specific Criteria–Saltwaters", 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.

Toxic Pollutant Limits

The derivation of permit limits in this permit was made with an awareness of the aquatic life and human health criteria specified in the Rhode Island Water Quality Regulations (250-RICR-150-05-1). Aquatic life criteria have been established to ensure the protection and propagation of aquatic life while human health criteria represent the pollutant levels that would not result in a significant risk to public health from ingestion of aquatic organisms. Details concerning the calculation of potential permit limitations, selection of factors which influence their calculation, and the selection of final permit limitations are included below.

Mixing Zones and Dilution Factors

A dilution factor of 1 (i.e. no dilution) was maintained from the 2015 permit for the Greenwich Mills, LLC discharge. A dilution factor of 1 has been selected due to the facility discharging to an estuary via a storm sewer, and no dilution study being available.

Because a dilution factor was not used for this facility, background data for this facility was not evaluated / assessed.

The formulas and data noted above were applied with the following exception:

Pollutants with water quality based monthly average limits in the previous RIPDES permit: The relaxation of monthly average limits from the previous permit was restricted in accordance with the antibacksliding provisions of the Clean Water Act and the Policy on the Implementation of the Antidegradation Provisions of the Rhode Island Water Quality Regulations (250-RICR-150-05-1).

Wasteload Allocation

In accordance with 40 CFR Part 122.4(d)(1)(iii), it is only necessary to establish limitations for those pollutants in the discharge which have the reasonable potential to cause or contribute to the exceedance of the in-stream criteria. In order to evaluate the need for permit limitations, the allowable discharge levels (permit limits, as described below) were compared to Discharge Monitoring Report (DMR) data, Priority Pollutant Scan data, and data provided in the permit application, which included treatment system influent data. An assessment was made to determine if limits were necessary, using the data collected during the previous five (5) years.

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 Best Professional Judgement (BPJ) the maintenance of limits of five (5) times the MDL for cis-1,2-Dichloroethene and Tetrachloroethylene are appropriate, and would help to prevent unnecessary non-compliance due to field and/or laboratory contamination. The rationale for maintaining limits for cis-1,2-Dichloroethene is that this parameter was detected above MDL in the effluent since the issuance of the 2015 permit (two hits above MDL). The rationale for maintaining limits for Tetrachloroethylene is the presence of Tetrachloroethylene in the influent, which was detected in treatment system influent in testing data presented in the 2019 permit application. The BPJ limit of 5 times the MDL for Tetrachloroethylene 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. A limit permit limit for Bis(2-Ethyl-hexyl)Phthalate of five (5) times the MDL of 1.0 ug/L = 5.0 ug/L has been added to the permit based on the presence of Bis(2-Ethyl-hexyl)Phthalate at above detection in the influent in an annual influent priority pollutant scan in December of 2014. The BPJ limit of 5 times the MDL for Bis(2-Ethyl-hexyl)Phthalate is more stringent than the human health criteria for aquatic organism consumption, and chronic salt water aquatic life criteria do not exist for Bis(2-Ethyl-hexyl)Phthalate. Therefore, these BPJ limits are protective of water quality. Appendix B includes a table with this comparison for all pollutants. Note that, although some other contaminants were listed as “believed present” in the application, they were not detected and/or detected in the influent at levels below 50% of potential permit limits. Further, since these contaminants were not detected the effluent,

no permit limits have been assigned. Also note that the limit for cis-1,2 –Dichloroethene has been lowered from 5 ug/L to 2.5 ug/L. The MDL for cis-1,2 –Dichloroethene is 0.5 ug/L, therefore the new permit limit will be five (5) times MDL = 2.5 ug/L.

No Federal Effluent Limitation Guidelines (ELGs) are applicable to dewatering systems.

Antibacksliding

Provided below is a brief introduction to Antibacksliding and Antidegradation; as well as a discussion on how the two policies were used to calculate water quality-based limits.

Antibacksliding restricts the level of relaxation of water quality-based limits from the previous permit. Section 303(d)(4) of the Clean Water Act addresses antibacksliding as the following:

Section 303(d)(4)

1. Standards not attained – For receiving waters that have not attained the applicable water quality standards, limits based on a TMDL or WLA can only be revised if the water quality standards will be met. This may be done by (i) determining that the cumulative effect of all such revised limits would assure the attainment of such water quality standards; or (ii) removing the designated use which is not being attained in accordance with regulations under Section 303.

2. Standards attained – For receiving waters achieving or exceeding applicable water quality standards, limits can be relaxed if the revision is consistent with the State's Antidegradation Policy.

Therefore, in order to determine whether backsliding is permissible, the first question that must be asked is whether or not the receiving water is attaining the water quality standard. The Office has determined the most appropriate evaluation of existing water quality is by calculating pollutant levels, which would result after the consideration of all currently valid RIPDES permit limits or historic discharge data (whichever is greater), background data (when available), and any new information (i.e., dilution factors).

Antidegradation

The DEM's "*Policy on the Implementation of the Antidegradation Provisions of the Rhode Island Water Quality Regulations July 2006*" (the Policy) established four tiers of water quality protection:

Tier 1. In all surface waters, existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

Tier 2. In waters where the existing water quality criteria exceeds the levels necessary to support the propagation of fish and wildlife and recreation in and on the water, that quality shall be maintained and protected except for insignificant changes in water quality as determined by the Director and in accordance with the Antidegradation Implementation Policy, as amended. In addition, the Director may allow significant degradation, which is determined to be necessary to achieve important economic or social benefits to the State in accordance with the Antidegradation Policy.

Tier 2½. Where high quality waters constitute Special Resource Protection Waters SRPWs[1], there shall be no measurable degradation of the existing water quality necessary to protect the characteristics which cause the waterbody to be designated a SRPW. Notwithstanding that all public drinking water supplies are SRPWs, public drinking water suppliers may undertake temporary and short-term activities within the boundary perimeter of a public drinking water supply impoundment for essential maintenance or to address emergency conditions in order to prevent adverse effect on public health or safety. These activities must comply with the requirements set forth in Tier 1 and Tier 2.

[1] SRPWs are surface waters identified by the Director as having significant recreational or ecological uses.

Tier 3. Where high quality waters constitute an Outstanding Natural Resource ONRWs[2], that water quality shall be maintained and protected. The State may allow some limited activities that result in temporary or short-term changes in the water quality of an ONRW. Such activities must not permanently degrade water quality or result in water quality lower than necessary to protect the existing uses in the ONRW.

The formulas previously presented ensure that permit limitations are based upon water quality criteria and methodologies established to ensure that all designated uses will be met.

In terms of the applicability of Tier 2 of the Policy, a water body is assessed as being high quality on a parameter-by-parameter basis. In accordance with Part II of the Policy, "Antidegradation applies to all new or increased projects or activities which may lower water quality or affect existing water uses, including but not limited to all 401 Water Quality Certification reviews and any new, reissued, or modified RIPDES permits." Part VI.A of the Policy indicates that it is not applicable to activities which result in insignificant (i.e., short-term minor) changes in water quality and that significant changes in water quality will only be allowed if it is necessary to accommodate important economic and social development in the area in which the receiving waters are located (important benefits demonstration). Part VI.B.4 of the Policy states that: "Theoretically, any new or increased discharge or activity could lower existing water quality and thus require the important benefits demonstration. However, DEM will: 1) evaluate applications on a case-by-case basis, using BPJ and all pertinent and available facts, including scientific and technical data and calculations as provided by the applicant; and 2) determine whether the incremental loss is significant enough to require the important benefits demonstration described below. [If not then as a general rule DEM will allocate no more than 20%.] Some of the considerations which will be made to determine if an impact is significant in each site specific decision are: 1) percent change in water quality parameter value and their temporal distribution; 2) quality and value of the resource; 3) cumulative impact of discharges and activities on water quality to date; 4) measurability of the change; 5) visibility of the change; 6) impact on fish and wildlife habitat; and 7) impact on potential and existing uses. As a general guide, any discharge or activity which consumes greater than 20% of the remaining assimilative capacity may be deemed significant and invoke full requirements to demonstrate important economic or social benefits."

In terms of a RIPDES permit, an increased discharge is defined as an increase in any limitation, which would result in an increased mass loading to a receiving water. The baseline for this comparison would be the monthly average mass loading established in the previous permit. It would be inappropriate to use the daily maximum mass loading since the Policy is not applicable to short-term changes in water quality.

For the purposes of ensuring that the revised limit is consistent with the requirements of antidegradation, existing water quality must be defined. As explained earlier, DEM evaluates existing water quality by determining the pollutant levels which would result under the design conditions appropriate for the particular criteria (i.e., background water quality, when available and/or appropriate, non-point source inputs; and existing RIPDES permit limitations or recent historical discharge data, whichever is higher). In general, available data would be used to make this determination.

Use the above-mentioned criteria, the present instream water quality C_p is defined as:

$$C_p = \frac{(DF - 1) \cdot C_B + (1 \cdot C_d)}{DF}$$

where: C_b = background concentration[3]
C_d = discharge data[4]
DF = dilution factor

[2] ONRWs are a special subset of high-quality water bodies, identified by the State as having significant recreational or ecological water uses.
[3] Data collected at a location that is unimpacted by significant point source discharges.
[4] Discharge data refers to the maximum of the permit limit or the historic discharge level. The historic discharge level is determined by calculating the upper 95th confidence interval for the monthly average reported data for the past five (5) years. For specific cases, changes in treatment efficiency or pretreatment limitations may support the use of an alternative period of time.

In this permit, all monthly average limitations are either the same as or more stringent than the limits in the 2015 permit. Therefore, the limits contained in this permit are consistent with the Department's anti-degradation policy.

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.

Summary of Permit Limits

Table 2. - outfall 100

Parameter	Monthly Average	Daily Maxiumum	Frequency
Flow	--- gpm	6048 gpm	Continuous
Tetrachloroethylene	--- ug/l	5 ug/l	2/Year
cis-1,2 Dichloroethene	--- ug/l	2.5 ug/l	2/Year
Bis(2-Ethyl-hexyl)Phthalate	--- ug/l	5 ug/l	2/Year
pH	(6.5 S.U.)	(8.5 S.U.)	2/Year

() 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.

V. 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. In accordance with Chapter 46-17.4 of Rhode Island General Laws, a public hearing will be held prior to the close of the public comment period. 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, 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, provided oral testimony, 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 250-RICR-150-10-1.50 of the Regulations for the Rhode Island Pollutant Discharge Elimination System.

VI. 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.
Environmental Engineer II
Department of Environmental Management/ Office of Water Resources
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-4700, ext: 7046
Email: samuel.kaplan@dem.ri.gov

5/13/2020
Date

Joseph B. Haberek
Joseph B. Haberek, P.E.
Environmental Engineer IV
RIPDES Program
Office of Water Resources
Department of Environmental Management

Appendix A - Historical Discharge Levels

Data is from January 2015 to June 2019

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

DISCHARGE: 100

AVERAGE EFFLUENT CHARACTERISTICS AT POINT OF DISCHARGE OF SELECTED POLLUTANTS:

PARAMETER	AVERAGE	MAXIMUM
cis-1,2-Dichloroethene (ug/L)	0.467	0.467
Flow (gal/day)	3304.56	3304.56
pH	6.56	6.64
Tetrachloroethylene (ug/L)	0.556	0.556

Note: Effluent parameter averages and maxima were calculated use MDL values given on Discharge Monitoring reports in cases in which MDLs reported values were below detection (i.e. < MDLs).

Appendix B – Permit Parameters Spreadsheet

parameter	MDL, ug/L	5*MDL, ug/L	chronic saltwater aquatic life criteria (ug/	aquatic organism consumption human health criteria (ug/L)	monitored in 2015 permit?	exceeded MDLs in effluent? (2015 permit, value given if > MDL)	exceeded MDLs in influent? (2015 permit	found in the intake? (2019 permit ap) - listed as "n" if < than detection	annual intake scans (Tab. 2 2019 permit application, "ND" if less than detection)	midpoint - 2019 scan (7/1/19 report date?)?	effluent - 2019 scan (7/1/19 report date?)?	influent - 2019 scan (7/1/19 report date?)?	2019 permit ap value intake, ug/L (Form 2C, Part V.B. & V.C.)	reasonable potential?	
Tetrachloroethylene	1.0	5.0	NL	33	y	n	n	y	1.4	ND	ND	ND	0.7	y	
cis-1,2-Dichloroethene	0.5	2.5	NL	NL	y	1.2	y	n	3	ND	ND	2	NA	y	
Benzoic Acid	**50**	250	NL	NL	n	NA	NA	n	NL	NL	NL	NL	NA	NA	
Ethylbenzene	1.0	5.0	NL	2100	n	NA	NA	n	NL	ND	ND	ND	NA	NA	
Naphthalene	1.0	5.0	NL	NL	n	NA	NA	n	ND	NL	NL	NL	NA	n	
n-Propylbenzene	**5**	25	NL	NL	n	NA	NA	n	ND	NL	NL	NL	NA	n	
Toluene	1.0	5.0	NL	15000	n	NA	NA	n	ND	ND	ND	ND	NA	NA	
1,2,4-Trimethylbenzene	1.0	5.0	NL	NL	n	NA	NA	n	ND	NL	NL	NL	NA	NA	
Xylenes	5	25.0	NL*	NL*	n	NA	NA	n	ND	ND	ND	ND	NA	NA	
Benzo(a)Anthracene	2.0	10.0	NL	NL	n	NA	NA	y	ND	NL	NL	NL	1.0	n	**
Benzo(a)Pyrene	2.0	10.0	NL	NL	n	NA	NA	y	ND	NL	NL	NL	1.0	n	**
Chrysene	1.0	5.0	NL	NL	n	NA	NA	y	ND	NL	NL	NL	0.9	n	**
Phenanthrene	1.0	5.0	NL	NL	n	NA	NA	y	ND	NL	NL	NL	0.9	n	**
Pyrene	1.0	5.0	NL	4000	n	NA	NA	y	ND	NL	NL	NL	0.9	n	**
Bis(2-Ethyl-hexyl)Phthalate	1.0	5.0	NL	22	n	NA	NA	y	1.9	NL	NL	NL	3.0	y	**
Chloroform	1.0	5.0	NL	170	n	NA	NA	n	0.35	ND	ND	ND	NA	n	

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

carried over from 2014 permit

1993 Region I RIPDES permit policy

based on MDLs listed in 2014 permit

1993 Region I RIPDES permit policy - corrected

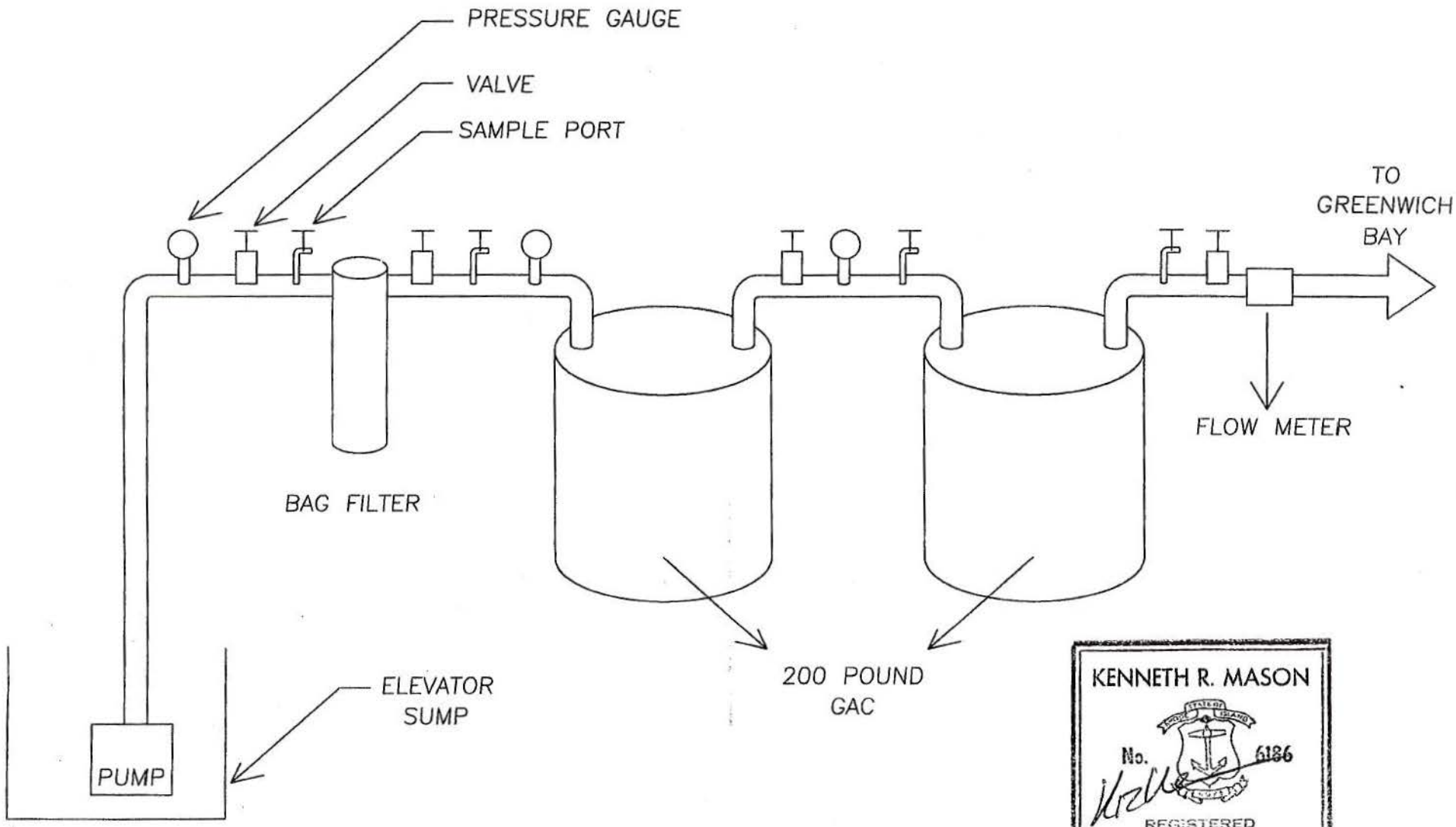
NL = not listed

* = Xylene

** = permit ap value is less than MDL

NA = not applicable or not listed on application

Figure 1A: Treatment System Layout



KENNETH R. MASON
No. 6186
REGISTERED PROFESSIONAL ENGINEER

NOT TO SCALE

FIGURE 2A

ELEVATOR SUMP DISCHARGE TREATMENT SYSTEM

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

DWG: 01652C

Copyright © Lincoln Environmental, Inc.

Lincoln Environmental, Inc.
Smithfield, Rhode Island (401)232-3353

42 LADD STREET
WARWICK, RI

Figure 1B: Site Location Map

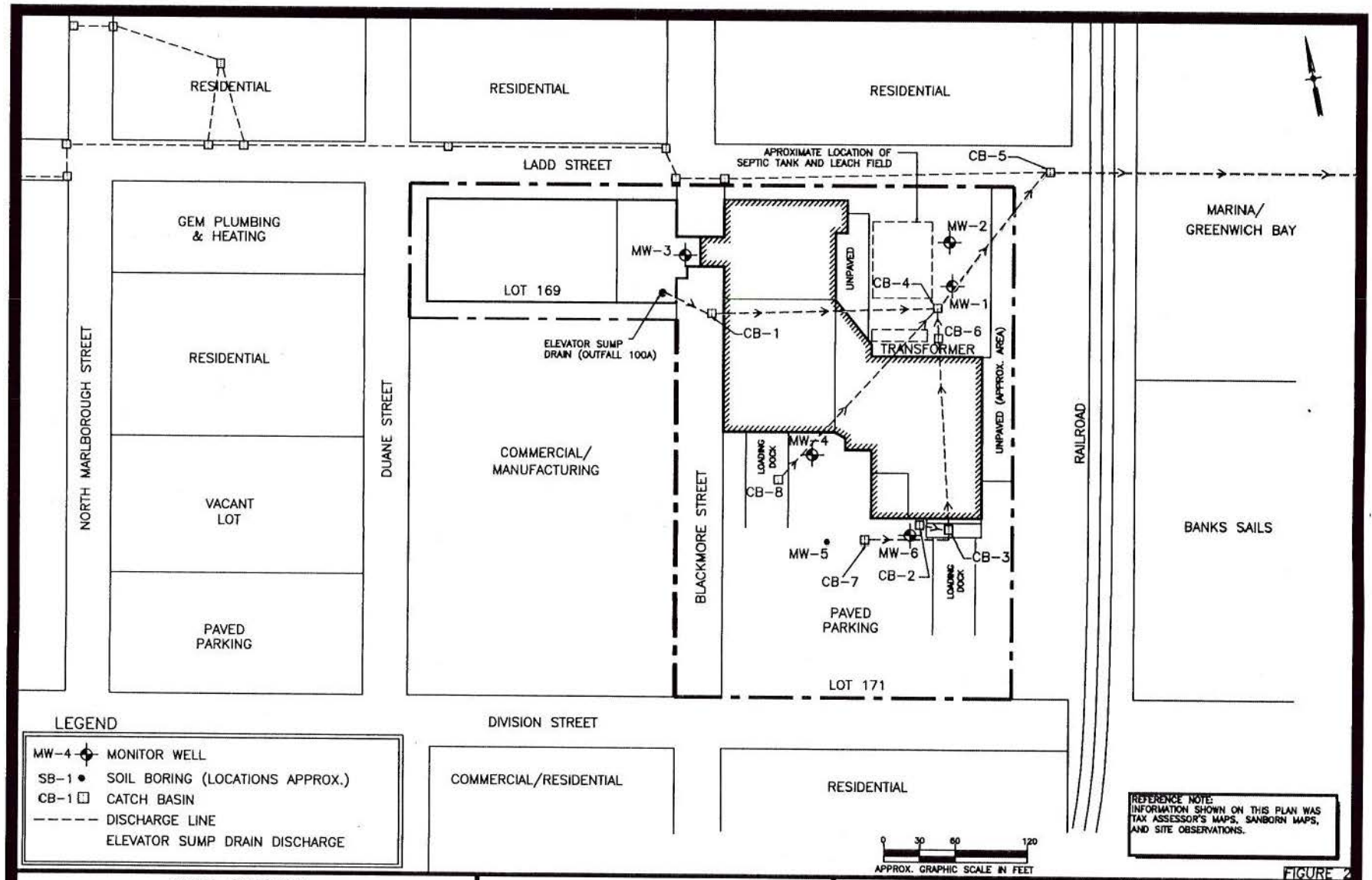


FIGURE 2

SITE SKETCH

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

DWG: SITEPLAN
BY: TM
BY: JAM

Copyright © ATC Lincoln Associates

ATC Lincoln ASSOCIATES

42 LADD STREET
WARWICK, RI

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: Friday May 29, 2020

PUBLIC NOTICE NUMBER: PN 20-1A

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:

42 Ladd Street
Warwick, RI 02818

RECEIVING WATER: Greenwich Cove (**WBID:** 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.

The DEM has determined that the proposed activities comply with the Policy on the Implementation of the Antidegradation Provisions of the Rhode Island Water Quality Regulations and that existing uses will be maintained and protected. A detailed evaluation of the water quality impact from the proposed activities and any important benefits demonstrations, if required, may be found in the statement of basis which is available as noted below.

FURTHER INFORMATION:

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 emailing or calling DEM as noted below:

Samuel Kaplan, P.E.
Environmental Engineer II
Rhode Island Department of Environmental Management
Office of Water Resources
235 Promenade Street
Providence, Rhode Island 02908-5767
(401) 222-4700 ext. 7046
e-mail: samuel.kaplan@dem.ri.gov

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 to the attention of Samuel Kaplan as 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 4:00 PM on Monday, June 29, 2020, a public hearing will be held at the following time:

5:00 PM Wednesday, July 1, 2020

In accordance with Executive Order 20-25 the public hearing will be held virtually. The virtual public hearing, if held, may be accessed by members of the public using the following link:

Join Zoom Meeting
https://zoom.us/j/93839295865

Meeting ID: 938 3929 5865
One tap mobile
+19292056099,,93839295865# US (New York) 13017158592,,93839295865# US +(Germantown)

Dial by your location
+1 929 205 6099 US (New York)
+1 301 715 8592 US (Germantown)
+1 312 626 6799 US (Chicago)
+1 669 900 6833 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)
Meeting ID: 938 3929 5865
Find your local number: https://zoom.us/u/auUebv5SV

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

If communication assistance (readers/interpreters/captioners) is needed, or any other accommodation to ensure equal participation, please call DEM at the number listed above or RI Relay 711 at least three (3) business days prior to the meeting so arrangements can be made to provide such assistance at no cost to the person requesting.

Interested parties may submit comments on the permit actions and the administrative record to the address above no later than 4:00 PM Thursday, July 2, 2020.

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 250-RICR-150-10-1.42 of the Regulations of the Rhode Island Pollutant Discharge Elimination System. The public comment period is from Friday, May 29, 2020 to Thursday, July 2, 2020. 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 250-RICR-150-10-1.50 of the Regulations of the Rhode Island Pollutant Discharge Elimination System.

May 20, 2020
Date

Joseph B. Haberek
Joseph B. Haberek, P.E.
Environmental Engineer IV
RIPDES, Office of Water Resources
Department of Environmental Management