

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Clean Water Act as amended (33 U.S.C. §§1251 et seq.; the “CWA”), and the Massachusetts Clean Waters Act, as amended (M.G.L. Chap. 21, §§26-53),

**Battle Road Farm Condominium Trust
c/o First Realty Management
151 Tremont Street
Boston, MA 02111**

is authorized to discharge from a facility located at

**Battle Road Farm Wastewater Treatment Facility
39 Indian Camp Lane
Lincoln, Massachusetts 01773**

to a receiving waters named

**Wetland
Shawsheen River Basin (MA 83-08)**

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

This permit shall become effective on (See ** below)

This permit and the authorization to discharge expire at midnight, September 30, 2007.

This permit supersedes the permit issued on May 22, 1998.

This permit consists of 9 pages in Part I, including effluent limitations, monitoring requirements, Attachments A and B and 35 pages in Part II, including General Conditions and Definitions.

Signed this 11th day of August, 2003

SIGNATURE ON FILE

Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

Director
Division of Watershed Management
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

*** This permit will become effective on the date of signature if no comments are received during public notice. If comments are received during public notice, this permit will become effective 60 days after signature.

PART I

EFFLUENT LIMITATIONS

A.1. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge from outfall serial number 001 , treated effluent to wetlands- Shawsheen River basin. Such discharges shall be limited and monitored as specified below.					
<u>EFFLUENT CHARACTERISTIC</u>		<u>EFFLUENT LIMITS</u>		<u>MONITORING REQUIREMENTS¹</u>	
<u>PARAMETER</u>	<u>AVERAGE MONTHLY</u>	<u>AVERAGE WEEKLY</u>	<u>MAXIMUM DAILY</u>	<u>MEASUREMENT FREQUENCY</u>	<u>SAMPLE TYPE</u>
FLOW	0.033 GPD ³	*****	REPORT	CONTINUOUS	RECORDER
BOD ₅ ⁴	5 mg/l 1.4 lbs/day	*****	10.0 mg/l 2.8 lbs/day	2/MONTH	24-HOUR COMPOSITE ⁵
TSS ⁴	5 mg/l 1.4 lbs/day	*****	10.0 mg/l 2.8 lbs/day	2/MONTH	24-HOUR COMPOSITE ⁵
pH RANGE ²	6.5 - 8.3 SU (SEE PERMIT PAGE 6 OF 10, PARAGRAPH I.A.1.b.)			1/DAY	GRAB
TOTAL RESIDUAL CHLORINE ^{6,10,11}	11 ug/l	*****	19 ug/l	3/DAY	GRAB
FECAL COLIFORM ^{2, 6}	200 cfu/100 ml	*****	400 cfu/100 ml	1/WEEK	GRAB
TOTAL NITROGEN	5 mg/l	*****	10.0 mg/l	1/WEEK	24-HOUR COMPOSITE ⁵
TOTAL PHOSPHORUS	1.0 mg/l	*****	2.0 mg/l	1/WEEK	24-HOUR COMPOSITE ⁵

EFFLUENT LIMITATIONS CONTINUED ON FOLLOWING PAGE

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<u>PARAMETER</u>	<u>AVERAGE MONTHLY</u>	<u>AVERAGE WEEKLY</u>	<u>MAXIMUM DAILY</u>	<u>MEASUREMENT FREQUENCY</u>	<u>SAMPLE³ TYPE</u>
TOTAL COPPER ¹²	4.3 ug/l	*****	5.9 ug/l	1/QUARTER	24-HOUR COMPOSITE ⁵
TOTAL ALUMINUM	87 ug/l	*****	750 ug/l	1/QUARTER	24-HOUR COMPOSITE ⁵
TOTAL LEAD ¹²	0.99 ug/l		25 ug/l	1/QUARTER	24-HOUR COMPOSITE ⁵
WHOLE EFFLUENT TOXICITY See Footnotes 7, 8 and 9	Chronic C-NOEC = 100%; Acute, LC ₅₀ ≥ 100%			2/YEAR	24-HOUR COMPOSITE ⁵

Footnotes:

- 1) All required effluent samples shall be collected after UV disinfection. If back-up chlorination disinfection is used then all required effluent samples shall be collected prior to chlorination except for the chlorine residual and fecal coliform samples, which shall be taken after disinfection. Any change in sampling location must be reviewed and approved in writing by EPA

and MADEP. All samples shall be tested using analytical methods found in 40 CFR 136, or alternative methods approved by EPA in accordance with procedures in 40 CFR 136. All samples shall be 24-hour composites unless specified as a grab sample in 40 CFR 136.

- 2) Required for State Certification.
- 3) For flow, report maximum and minimum daily rates and total flow for each operating date. This is an annual average limit, which shall be reported as a rolling average. The first value will be calculated using the monthly average flow for the first full month ending after the effective date of the permit and the eleven previous monthly average flows. Each subsequent month's DMR report will report the annual average flow that is calculated from that month and the previous 11 months.
- 4) Sampling required for influent and effluent.
- 5) A 24-hour composite will consist of at least twenty-four (24) grab samples taken during one working day (e.g., 0700 Monday to 0700 Tuesday).
- 6) The average monthly limit is expressed as a geometric mean. If back-up chlorination disinfection is used, fecal coliform monitoring shall be conducted concurrently with total chlorine residual sampling. This is a state certification requirement.
- 7) The permittee shall conduct acute and chronic toxicity tests two times per year. The permittee shall test the daphnid, Ceriodaphnia dubia. Toxicity test samples shall be collected during the second week of May and August. Results are to be submitted by the 30th day of the month after the sample, i.e. June and September. See Permit **Attachment A** Toxicity Test Procedure and Protocol.
- 8) The LC₅₀ is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 50% limit means that a sample of 50% effluent shall cause no more than a 50% mortality rate.
- 9) If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee shall follow procedures outlined in **Attachment A, Section IV., DILUTION WATER** in order to obtain permission to use an alternate dilution water. In lieu of individual approvals for alternate dilution water required in **Attachment A**, EPA-New England has developed a Self-Implementing Alternative Dilution Water Guidance document (called "Guidance Document") which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water. If this Guidance document is revoked, the permittee shall revert to obtaining approval as outlined in **Attachment A**. The "Guidance Document" has been sent to all permittees with their annual set of DMRs and Revised Updated Instructions for Completing EPA's Pre-Printed NPDES Discharge Monitoring Report (DMR) Form 3320-1 and is not intended as a direct attachment to this permit. Any modification or revocation to this "Guidance Document" will be transmitted to the permittees as part of the annual DMR instruction package. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in **Attachment A**.

10. Any use of the back-up chlorination disinfection system shall require in the applicable DMR report an explanation for its use and the dates of usage.

The minimum level (ML) for total residual chlorine is defined as 20 ug/l. This value is the minimum detection level for chlorine using EPA approved methods found in Standard Methods for the Examination of Water and Wastes, 18th Edition, Method 4500 CL- G.

For effluent limitations less than 20 ug/l, compliance/non-compliance will be determined based on the ML. Sample results of 20 ug/l or less shall be reported as zero on the discharge monitoring report.

11. If the back-up chlorination system is not used during the DMR reporting period, the No Data Indicated Code (NODI) number 9 shall be reported on the DMR to indicate that sampling for TRC is not required.
12. The minimum level (ML) for total copper and lead are defined as 3 ug/l. This value is the minimum detection level for copper and lead using EPA approved Furnace Atomic Absorption Method 220.2 for copper and 239.2 for lead respectively.

PART I.A.1 (continued)

- a. The discharge shall not cause a violation of the water quality standards of the receiving waters.
- b. The pH of the effluent shall not be less than 6.5 S.U., nor greater than 8.3 S.U. at any time, unless these values are exceeded due to natural causes or as a results of an approved treatment process.
- c. The discharge shall not cause objectionable discoloration of the receiving water.
- d. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
- e. When the effluent discharges for a period of 90 consecutive days exceeds 80 percent of design flow, the permittee shall submit to the permitting authorities a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.
- f. The results of sampling for any parameter above its required frequency must also be reported.

2. Toxics Control

- a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.
- b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been

or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

3. Numerical Effluent Limitations for Toxicants

EPA or DEP may use the results of the toxicity tests and chemical analyses conducted pursuant to this permit, as well as national water quality criteria developed pursuant to Section 304(a)(1) of the Clean Water Act (CWA), state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 CFR Part 122.

B. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from the outfall listed in Part I.A.1. Discharge of wastewater from any other point source is not authorized by this permit and shall be reported in accordance with Section D.1.e(1) of the General Requirements of this permit (Twenty-four hour reporting).

C. OPERATION AND MAINTENANCE

Operation and maintenance of the wastewater treatment facility and the sewer system shall be in compliance with the General Requirements of Part II and the following terms and conditions:

1. Maintenance Staff

The permittee shall provide adequate staff to carry out the operations, maintenance, repair and testing functions required to ensure compliance with the terms and conditions of this permit.

2. Preventative Maintenance Program

The permittee shall maintain an ongoing preventative maintenance program for the treatment facility and for the prevention of overflows and bypasses caused by malfunctions or failures of the sewer system infrastructure. The program shall include an inspection program designed to identify all potential and actual unauthorized discharges.

3. Infiltration/Inflow Control Plan

The permittee shall develop and implement measures to control and minimize infiltration and inflow (I/I) to the sewer system. These measures shall be designed to prevent infiltration/inflow related effluent limit violations, and all unauthorized discharges of wastewater, including overflows and by-passes due to excessive infiltration/inflow.

4. Alternate Power Source

In order to maintain compliance with the terms and conditions of this permit, the permittee shall continue to provide an alternative power source with which to sufficiently operate its treatment works (as defined at 40 CFR §122.2).

5. Back-Up Chlorination System

Any use of chlorination for disinfection shall be reported as described and required in the Effluent Limitations of this permit.

D. SLUDGE CONDITIONS

1. The permittee shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices and with the CWA Section 405(d) technical standards.
2. The permittee shall comply the more stringent of either state or federal regulations.
3. The technical standards (Part 503 regulations) apply to facilities which perform one or more of the following use or disposal practices:
 - a. Land application - the use of sewage sludge to condition or fertilize the soil;
 - b. Surface disposal - the placement of sewage sludge in a sludge-only landfill; or
 - c. Placement of sludge in a municipal solid waste landfill.
4. These conditions do not apply to facilities which transport sewage sludge to another facility for use or disposal or which do not use or dispose of sewage sludge (e.g., lagoons - reed beds); or material described in 40 CFR 503.6 (Exclusions).
5. The permittee shall use and comply with the attached guidance (see Attachment B) document to determine appropriate conditions. Appropriate conditions contain the following elements:
 - a. General requirements
 - b. Pollutant limitations
 - c. Operational standards (pathogen reduction requirement and vector attraction reduction requirements)
 - d. Management practices
 - e. Record keeping
 - f. Monitoring
 - g. Reporting

Depending upon the quality of material produced by a facility, all conditions may not apply to the facility.

6. The permittee shall monitor the pollutant concentrations, pathogen reduction and vector attraction reduction at the following frequency. This frequency is based upon the volume

of sewage sludge generated at the facility in dry metric tons per year:

<u>Sludge Volume (dry metric tons/year)</u>	<u>Monitoring Frequency</u>
less than 290	1/year
290 to less than 1500	1/quarter
1500 to less than 15,000	6/year
15,000+	1/month

7. The permittee shall sample the sewage sludge using the procedures detailed in 40 CFR 503.8.
8. The permittee shall submit an annual report containing the information specified in the guidance. Reports are due annually **by February 19th**. Reports shall be submitted to the addresses contained in the reporting section of the permit. Sludge monitoring is not required by the permittee when the permittee is not responsible for the ultimate sludge disposal. The permittee must be assured that any third party contractor is in compliance with appropriate regulatory requirements. The permittee is required only to submit an annual report **by February 19** containing the following information:
 - Name and address of contractor responsible for sludge disposal
 - Quantity of sludge in dry metric tons removed from the facility by the sludge contractor

E. MONITORING AND REPORTING

1. Reporting

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Forms(s) postmarked **no later than the 15th day of the month following the effective date of the permit.**

Signed and dated originals of these, and all other reports required herein, shall be submitted to the Director and the State at the following addresses:

Environmental Protection Agency
Water Technical Unit (SEW)
P.O. Box 8127
Boston, MA 02114

The State agency is:

Massachusetts Department of Environmental Protection
Northeast Regional Office
Bureau of Resource Protection
1 Winter Street
Boston, MA 02108

Signed and dated Discharge Monitoring Report forms, toxicity test reports, and all other reports required herein, shall also be submitted to the State at the following address:

Massachusetts Department of Environmental Protection
Division of Watershed Management

Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, MA 01608

F. STATE PERMIT CONDITIONS

1. This discharge permit is issued jointly by the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MA DEP) under federal and state law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the MA DEP pursuant to M.G. L, Chap. 21, §43.

2. Each agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension, or revocation of this permit shall be effective only with respect to the agency taking such action, and shall not affect the validity or status of this permit as issued by the other agency, unless and until each agency has concurred in writing with such modification, suspension, or revocation. In the event any portion of this permit is declared invalid, illegal, or otherwise issued in violation of state law such permit shall remain in full force and effect under federal law as an NPDES permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal, or otherwise issued in violation of federal law, this permit shall remain in full force and effect under state law as a permit issued by the Commonwealth of Massachusetts.