

**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),

**River Terrace Healthcare**

is authorized to discharge from a facility located at

**1675 Main Street  
Lancaster, MA 01523**

to receiving water named

**North Nashua River - MA81**

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

This permit shall become effective on **May 1, 2008**.

This permit and the authorization to discharge expire five (5) years from the last day of the month preceding the effective date.

This permit supersedes the permit issued on September 11, 1995.

This permit consists of 7 pages in Part I including effluent limitations, monitoring requirements, Attachment A, Freshwater Acute Toxicity Test Procedure, Protocol and Attachment B, EPA Region 1, NPDES Permit, Sludge Compliance Guidance, and 25 pages in Part II including General Conditions and Definitions.

**Signed this 31<sup>ST</sup> day of March, 2008**

**/S/ SIGNATURE ON FILE**

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Director  
Office of Ecosystem Protection  
Environmental Protection Agency  
Boston, MA

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

**PART I**

**A. 1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from outfall 001, to the North Nashua River. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>			<u>Monitoring Requirement</u>	
		<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type<sup>2</sup></u>
Flow <sup>1</sup>	gpd	7,500	-----	report	Continuous	Meter
Biochemical Oxygen Demand <sub>5</sub> (BOD <sub>5</sub> )	mg/l	30	45	report	1/week <sup>3</sup>	24-Hour
	lbs/day	1.9	2.8	report		Composite <sup>4</sup>
Total Suspended Solids (TSS)	mg/l	30	45	report	1/week <sup>3</sup>	24-Hour
	lbs/day	1.9	2.8	report		Composite <sup>4</sup>
pH Range		(See Condition I.A.1.b. on Page 4)			1/week	Grab
Fecal Coliform <sup>5</sup>	cfu/100 ml	200	-----	400	1/week	Grab
<i>E. coli</i> Bacteria <sup>5</sup>	cfu/100 ml	126	-----	409	1/week	Grab
Total Phosphorus (May 1 - October 31)	mg/l	1.0	-----	report	1/month	24-Hour Composite <sup>4</sup>
LC <sub>50</sub> <sup>6,7,8</sup>	%	-----	-----	50	1/year	24-Hour Composite <sup>4</sup>

All sampling shall be representative of the effluent that is discharged through outfall 001 to the North Nashua River. A routine sampling program shall be developed in which samples are taken at the same location, same time and same days of every month. Any deviations from the routine sampling program shall be documented in correspondence appended to the applicable discharge monitoring report that is submitted to EPA.

**Footnotes:**

1. Report monthly average and maximum daily flow. The limit is a monthly average limit.
2. All required effluent samples shall be collected prior to disinfection except pH, fecal coliform and, *E.coli* which shall be taken after disinfection. Any change in sampling locations must be reviewed and approved in writing by the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP). All samples shall be tested using analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136.
3. Sampling required for influent and effluent.
4. A 24-hour composite sample will consist of at least eight (8) grab samples taken during one operating day (e.g. Monday 0700-Tuesday 0700).
5. Fecal coliform and *E.coli* monitoring will be conducted year round. This is a state certification requirement. Fecal coliform shall not exceed a monthly geometric mean of 200 colony forming units (cfu) per 100 ml, nor shall they exceed 400 cfu per 100 ml as a daily maximum. The fecal coliform limitations and monitoring requirements shall expire one year from the effective date of this permit.

The permittee shall achieve the *E. coli* limits in accordance with the compliance schedule found in Part D.of the permit. *E.coli* discharges shall not exceed a monthly geometric mean of 126 colony forming units (cfu) per 100 ml, nor shall they exceed 409 cfu per 100 ml as a daily maximum. The *E.coli* limitations and monitoring requirements shall be report-only for the first year that this permit is in effect, and the limitations shall become effective one year from the effective date of the permit.

6. The permittee shall conduct acute toxicity tests one time per year. The permittee shall test the daphnid, *Ceriodaphnia dubia*. The tests must be performed in accordance with test procedures and protocols specified in Attachment A- Acute Toxicity Test Procedures and Protocol of this permit.

Test Dates	Submit Results By:	Test Species	Acute Limit LC <sub>50</sub>
Second Week in September	October 30 <sup>th</sup>	<i>Ceriodaphnia dubia</i> See Attachment A	50%

7. The LC<sub>50</sub> 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 (50% dilution) shall cause no more than a 50% mortality rate.
8. If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee shall either follow procedures outlined in Attachment A, Toxicity Test Procedure and Protocol, Section IV., DILUTION WATER in order to obtain an individual approval for use of an alternate dilution water, or the permittee shall follow the Self-

Implementing Alternative Dilution Water Guidance which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water.

This guidance is found in Attachment G of the NPDES Program Instructions for the Discharge Monitoring Report Forms (DMRs) which is sent to all permittees with their annual set of DMRs and may also be found on the EPA, Region I web site at

<http://www.epa.gov/region1/enforcementandassistance/dmr2005.pdf>. If this guidance is revoked, the permittee shall revert to obtaining individual approval as outlined in Attachment A. Any modification or revocation to this guidance 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.

**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 shall be in the range of 6.5 through 8.3 standard units but no more than 0.5 units outside of the background range. There shall be no change from background conditions that would impair designated uses.
  - c. The permittee's treatment facility shall maintain a minimum of 85 percent removal of both total suspended solids and biochemical oxygen demand. The percent removal shall be based on monthly average values.
  - d. The discharge shall not cause objectionable discoloration of the receiving waters.
  - e. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
2. All Wastewater Treatment Plants (WWTP) must provide adequate notice to EPA and MassDEP of the following:
    - a. Any substantial change in the volume or character of pollutants being introduced into the WWTP.
    - b. For purposes of this paragraph, adequate notice shall include information on:
      - (1). the quantity and quality of effluent introduced into the WWTP; and
      - (2). any anticipated impact of the change on the quantity or quality of effluent to be discharged from the WWTP.
3. 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.
4. Numerical Effluent Limitations for Toxicants

EPA or MassDEP 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 (001), listed in Part I A.1. of this permit. Discharges of wastewater from any other point sources, including sanitary sewer overflows (SSOs) are 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) contained in Part II of this permit.

**C. OPERATION AND MAINTENANCE**

Operation and maintenance of 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 an adequate staff to carry out the operation, maintenance, repair and testing functions required to ensure compliance with the terms and conditions of this permit.
2. 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).

**D. COMPLIANCE SCHEDULE**

No later than one year from the effective date of the permit, the permittee shall achieve compliance with the monthly average and maximum daily limits for *E.coli*. During the interim, the permittee shall report-only the monthly average and daily maximum values once per week.

**E. 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 with the more stringent of either the state or federal (40 CFR Part 503) requirements.
3. The requirements and technical standards of 40 CFR Part 503 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

c. Sewage sludge incineration in a sludge only incinerator

4. The 40 CFR Part 503 conditions do not apply to facilities which place sludge within a municipal solid waste landfill. These conditions also do not apply to facilities which do not dispose of sewage sludge during the life of the permit but rather treat the sludge (e.g. lagoons-reed beds), or are otherwise excluded under 40 CFR §503.6.
5. The permittee shall use and comply with the attached compliance guidance document to determine appropriate conditions, see Attachment B, EPA Region 1 NPDES Permit Sludge Compliance Guidance. Appropriate conditions contain the following elements:
  - General requirements
  - Pollutant limitations
  - Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)
  - Management practices
  - Record keeping
  - Monitoring
  - 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:

Less than 290	1/year
290 to less than 1500	1/quarter
1500 to less than 15000	6/year
15000+	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 **by February 19**. Reports shall be submitted to the address contained in the reporting section of this 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. In such a case, 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

**F. MONITORING AND REPORTING**

Reporting

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Form(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 EPA and the State at the following addresses:

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

The State Agency address for all reports except toxicity tests is:

Massachusetts Department of Environmental Protection  
Central Regional Office - Bureau of Resource Protection  
627 Main Street  
Worcester, MA 01608

Signed and dated Discharge Monitoring Report Form(s), and toxicity test reports required by this permit shall also be submitted to the State at:

Massachusetts Department of Environmental Protection  
Division of Watershed Management  
Surface Water Discharge Permit Program  
627 Main Street, 2nd Floor  
Worcester, Massachusetts 01608

**G. STATE PERMIT CONDITIONS**

This discharge permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) 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 Commissioner of the MassDEP pursuant to M.G.L. Chap. 21, §43.

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.