

National studies conducted by the EPA have demonstrated that domestic sources, as well as industrial sources, contribute toxic constituents to POTWs. These constituents include metals, chlorinated solvents, aromatic hydrocarbons, and others. Based on the potential for toxicity from domestic and industrial contributions, the State narrative water quality criterion, the level of dilution at the discharge location, and in accordance with EPA national and regional policy and 40 CFR § 122.44(d), the draft permit includes both acute ( $LC_{50}$ ) and chronic (C-NOEC) whole effluent toxicity (WET) limitations. (See also "Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants", 49 Fed. Reg. 9016 March 9, 1984, and EPA's "Technical Support Document for Water Quality-Based Toxics Control", March 1991.)

The Massachusetts Department of Environmental Protection's Division of Watershed Management has a current toxics policy which requires toxicity testing for all major dischargers such as the Pittsfield POTW (Implementation Policy for the Control of Toxic Pollutants in Surface Waters, MassDEP 1990). In addition, EPA feels that toxicity testing is required to assure that the synergistic effect of the pollutants in the discharge do not cause toxicity, even though the pollutants may be at low concentrations in the effluent. The inclusion of whole effluent toxicity limitations in the draft permit will assure that the Pittsfield POTW does not discharge combinations of toxic compounds into the Housatonic River in amounts which would affect human or aquatic life.

Pursuant to EPA Region I Policy, and MassDEP's Implementation Policy for the Control of Toxic Pollutants in Surface Waters (February 1990), dischargers having a dilution factor less than 10:1 are required to conduct chronic (and modified acute) toxicity testing four times per year. This requirement has been included in the draft permit. In accordance with the above guidance, the draft permit includes an acute toxicity limit ( $LC_{50}$ ) of  $\geq 100\%$  and a chronic toxicity limit (chronic no observable effect concentration (C-NOEC)) of  $\geq 50\%$ . The C-NOEC limit was derived by taking the inverse of the calculated 7Q10 available dilution ( $[1/1.97] \times 100\% = 50\%$ ). The permittee shall conduct 7-Day chronic (and modified acute) toxicity tests using the daphnid, *Ceriodaphnia dubia* (*C. dubia*), as the test species. Toxicity testing shall be conducted four times per year, during the second week of the months of January, April, July, and October. Toxicity testing is currently conducted during the months of March, June, September, and December. The intent of the proposed change in the current whole effluent toxicity testing schedule is so that there is consistency amongst the scheduling of WET testing conducted by dischargers within the Housatonic River basin. Toxicity testing must be performed in accordance with the EPA Region I test procedures and protocols specified in **Appendix A** of the draft permit (Freshwater Chronic Toxicity Procedure and Protocol).

## VI. SLUDGE CONDITIONS

Section 405(d) of the CWA requires that EPA develop technical standards regarding the use and disposal of sewage sludge. On February 19, 1993, EPA promulgated technical

standards which are to be implemented through NPDES permits. The conditions in the draft permit satisfy this requirement.

## **VII. INFILTRATION/INFLOW (I/I)**

Infiltration is groundwater that enters the collection system through physical defects such as cracked pipes or deteriorated joints. Inflow is extraneous flow that enters the collection system through point sources such as roof leaders, yard and area drains, sump pumps, manhole covers, tide gates, and cross connections from storm water systems. Significant I/I in a collection system may displace sanitary flow, reducing the capacity and the efficiency of the treatment works and may cause bypasses of secondary treatment. It greatly increases the potential for sanitary sewer overflows in separate systems, and combined sewer overflows in combined systems.

The draft permit contains requirements for the permittee and co-permittees to control infiltration and inflow (I/I) into the separate sewer collection systems they own and operate. The permittee and co-permittees shall each develop an I/I removal program commensurate with the severity of I/I in the collection system. This program may be scaled down in sections of the collection system that have minimal I/I.

The standard permit conditions for "Proper Operation and Maintenance", set forth at 40 CFR § 122.41(e), require the proper operation and maintenance of permitted wastewater systems and associated facilities to achieve permit conditions. The requirements at 40 CFR § 122.41(d) impose a "duty to mitigate" upon the permittee and co-permittees, which requires that "all reasonable steps be taken to minimize or prevent any discharge in violation of the permit which has a reasonable likelihood of adversely affecting human health or the environment". EPA and MassDEP maintain that an I/I removal program is an integral component to ensuring compliance with the requirements of the permit under the provisions at 40 CFR § 122.41(d) and (e).

## **VIII. DEVELOPMENT OF LIMITATIONS FOR INDUSTRIAL USERS**

The permittee is required to identify, in terms of the character and volume of pollutants, any significant indirect dischargers into the POTW subject to pretreatment standards under Section 307(b) of the CWA.

## **IX. INDUSTRIAL PRETREATMENT PROGRAM**

The Pittsfield WWTP currently has an approved pretreatment program that it is required to administer under the authority granted under 40 CFR § 122.44(j), 40 CFR § 403 and Section 307 of the CWA. In accordance with 40 CFR § 403, the permittee is obligated to modify, if necessary, its pretreatment program plan, to be consistent with current Federal Pretreatment Regulations. The permittee is also required to implement its pretreatment program in accordance with the requirements found at 40 CFR Part 403 (General Pretreatment Regulations). These requirements are necessary to ensure continued compliance with the facility's NPDES permit and its sludge use or disposal practices. Those activities that the permittee must perform include, but are not limited to, the

following: (1) develop and enforce EPA-approved specific effluent limits (technically-based local limits); (2) issue industrial user discharge permits; (3) conduct compliance monitoring activities (e.g., sampling and inspections at industrial users); and (4) initiate enforcement actions against non-complying industrial users.

The draft permit requires the permittee to submit to EPA, within 90 days of the effective date of the permit, all required modifications of the Streamlining Rule in order to be consistent with the provisions of the newly promulgated rule. To the extent that the permittee's legal authority is not consistent with the required changes, they must be revised and submitted to EPA for review.

Lastly, the permittee must submit an annual pretreatment report by **October 31<sup>st</sup>**, which describes the permittee's pretreatment program activities over its pretreatment reporting period of September 1<sup>st</sup>-August 31<sup>st</sup>.

#### **X. ESSENTIAL FISH HABITAT DETERMINATION (EFH)**

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 *et seq.* (1998)), EPA is required to consult with the National Marine Fisheries Services (NMFS) if EPA's action or proposed actions that it funds, permits, or undertakes, "may adversely impact any essential fish habitat," (16 U.S.C. § 1855(b)).

The Amendments broadly define "essential fish habitat" (EFH) as: "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity," (16 U.S.C. § 1802(10)). "Adverse impact" means any impact which reduces the quality and/or quantity of EFH (50 CFR § 600.910(a)). Adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey, reduction in species' fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

Essential fish habitat is only designated for species for which federal fisheries management plans exist (16 U.S.C. § 1855(b)(1)(A)). EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999. The Housatonic River is not covered by the EFH designation for riverine systems and thus EPA and MassDEP have determined that a formal EFH consultation with NMFS is not required.

#### **XI. ENDANGERED SPECIES ACT (ESA)**

Section 7(a) of the Endangered Species Act (ESA) of 1973, as amended (the "Act"), grants authority to and imposes requirements upon Federal agencies regarding threatened or endangered species of fish, wildlife, or plants ("listed species") and habitat of such species that have been designated as critical ("critical habitat").

Section 7(a)(2) of the Act requires every Federal agency in consultation with and with the assistance of the Secretary of the Interior, to insure that any action it authorizes, funds, or carries out, in the United States or upon the high seas, is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. The National Marine Fisheries Service (NMFS) administers Section 7 consultations for marine species and anadromous fish. The United States Fish and Wildlife Service (USFWS) administers Section 7 consultations for freshwater species. EPA and the MassDEP have determined that an ESA consultation is not required for this discharge, since no listed species or critical habitat are located in an area that could be affected by the Pittsfield WWTP's discharge.

The permittee should contact the State regarding a Massachusetts Natural Heritage and Endangered Species Program (NHESP) review.

## **XII. MONITORING AND REPORTING**

The permittee is obligated to monitor and report sampling results to EPA and the MassDEP within the time specified in the permit. Timely reporting is essential for the regulatory agencies to expeditiously assess compliance with permit conditions.

## **XIII. STATE PERMIT CONDITIONS**

The NPDES permit is issued jointly by the U.S. Environmental Protection Agency and the Massachusetts Department of Environmental Protection under Federal and State law, respectively. As such, all the terms and conditions of the permit are, therefore, incorporated into and constitute a discharge permit issued by the Director of the Division of Watershed Management pursuant to M.G.L. Chap. 21, § 43.

## **XIV. GENERAL CONDITIONS**

The general conditions of the permit are based on 40 CFR Parts 122, Subparts A and D and 40 CFR § 124, Subparts A, D, E, and F and are consistent with management requirements common to other permits.

## **XV. STATE CERTIFICATION REQUIREMENTS**

The staff of the Massachusetts Department of Environmental Protection (MassDEP) has reviewed the draft permit. EPA has requested permit certification by the State pursuant to 40 CFR § 124.53 and expects that the draft permit will be certified.

## **XVI. PUBLIC COMMENT PERIOD AND PROCEDURES FOR FINAL DECISION**

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 U.S. EPA, Office of Ecosystem Protection, Municipal Permits Branch (CMP), One Congress

Street, Suite 1100, Boston, Massachusetts 02114. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to EPA and the State Agency. Such requests will state the nature of the issues proposed to be raised in the hearing. Public hearings may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicate a significant public interest. In reaching a final decision on the draft permit, the Regional Administrator will respond to all significant comments and make these responses available to the public at EPA's Boston Office.

Following the close of the comment period, and after a public hearing, if such a hearing is held, the Regional Administrator 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. Permits may be appealed to the Environmental Appeals Board in the manner described at 40 CFR § 124.19.

#### **XVII. EPA AND MASSDEP CONTACTS**

Additional information concerning the draft permit may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays, from the EPA and MassDEP contacts below:

Meridith Decelle  
U.S. Environmental Protection Agency  
Office of Ecosystem Protection (CMP)  
Suite 1100  
One Congress St.  
Boston, MA 02114  
Telephone: (617) 918-1533  
Fax: (617) 918-1505  
E-mail: [decelle.meridith@epa.gov](mailto:decelle.meridith@epa.gov)

Paul Hogan  
Massachusetts Department of Environmental Protection  
Division of Watershed Management, Surface Water Discharge Permit Program  
627 Main Street, 2nd Floor  
Worcester, MA 01608  
Telephone: (508) 767-2796  
Fax: (508) 791-4131  
E-mail: [Paul.Hogan@state.ma.us](mailto:Paul.Hogan@state.ma.us)

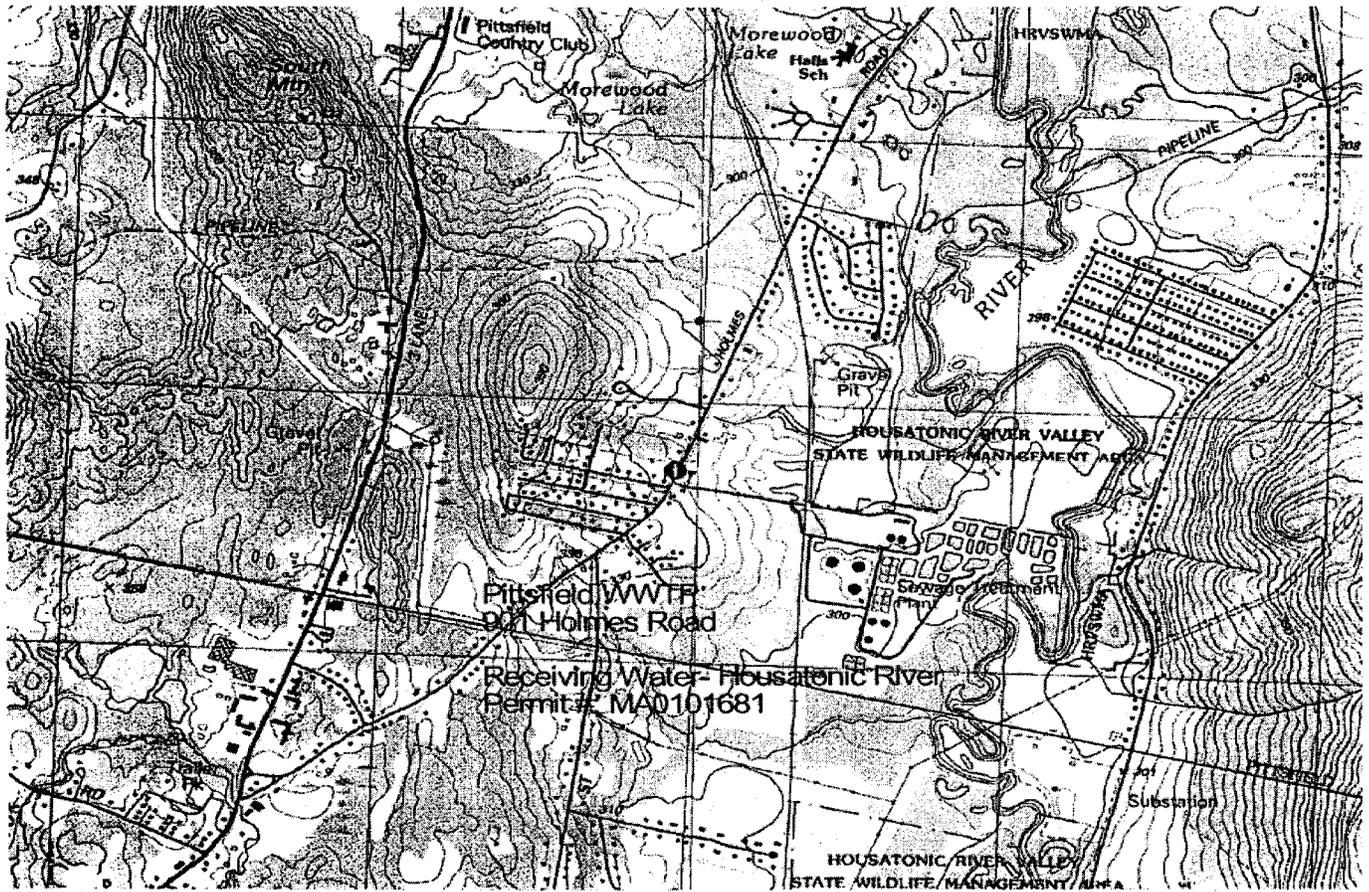


Figure 1: Site Map of the Pittsfield WWTP

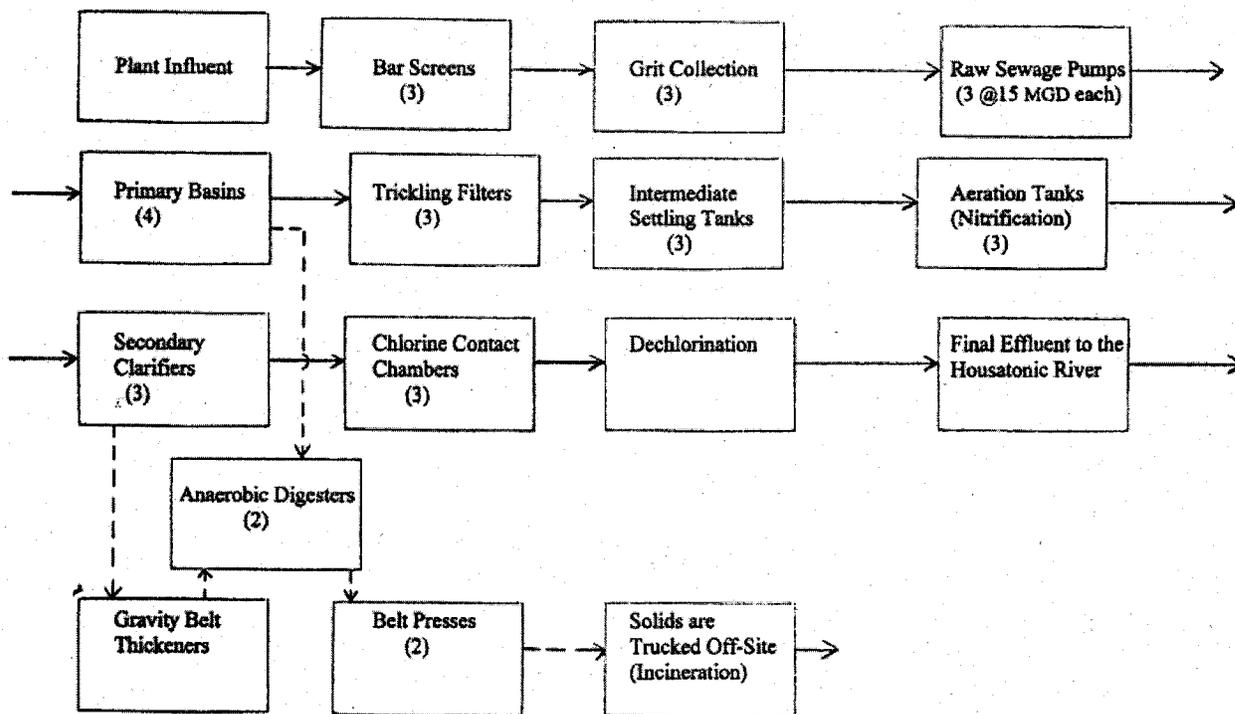


Figure 2: Process Flow Diagram

**Appendix A**  
**2005-2007 Effluent Data - Conventional Pollutants**

Date	Flow (MGD)		CBOD <sub>5</sub> (mg/l)			TSS (mg/l)			pH (SU)		Fecal Coliform Bacteria (April 1-Oct. 15) (cfu/100 ml)		
	Avg. Monthly	Max. Daily	Avg. Monthly	Avg. Weekly	Max. Daily	Avg. Monthly	Avg. Weekly	Max. Daily	Minimum	Maximum	Avg. Monthly	Avg. Weekly	Max. Daily
<b>Existing Limits</b>	17.0	28.7	10	10	Report	20	25	Report	6.5	8.3	200	400	400
Jan. 2005	12.1	21.5	1.3	1.5	1.8	5.3	6.1	7.1	7.5	8			
Feb. 2005	12.2	14.9	1.3	1.6	1.8	4.6	5.2	6.5	7.3	7.8			
March 2005	12.1	24	1.6	1.5	3.8	5.1	5.2	8.9	7.2	7.9			
April 2005	12.3	28.2	1.4	2.5	2.9	5.2	7.2	8.2	7.4	7.9	2.1	3	3
May 2005	12.1	12.5	1	1.3	2.1	4.5	5.7	6.4	7.3	7.7	3.2	4.2	4.2
June 2005	11.9	10	0.9	1.2	1.6	3	3.5	4	7.2	7.6	2.9	4.3	4.3
July 2005	11.8	10	0.9	1.3	1.5	4.8	5.2	6.3	7.2	7.6	7.9	11	11
Aug. 2005	11.6	8.8	1	1.3	1.7	5.3	7.4	8.5	7.2	7.6	21.9	28	28
Sept. 2005	11.2	7.8	1.3	1.5	2.5	5.7	7.7	8.1	7.2	7.5	12.7	22	19
Oct. 2005	11.5	25.4	1.9	2.5	3.7	6.6	7.6	9.9	7	7.8	25.5	50	50
Nov. 2005	11.7	23.5	1.8	2.3	4.9	7.1	8	10.6	7.2	7.9			
Dec. 2005	11.9	22.7	2.3	2.5	4.2	8.7	10.6	15.1	7.1	7.7			
Jan. 2006	12.3	30.1	1.6	2.2	2.8	5.5	6.8	7.8	7.2	7.7			
Feb. 2006	12.6	25.5	2.2	3.1	3.8	4.4	5.8	6.9	7	7.7			
March 2006	12.5	11.9	1.6	2.5	6.5	3	4.7	6.6	7.1	7.7			
April 2006	12	13.4	1	1.3	1.3	3.6	5.8	8.2	7.1	7.6	5.2	9	9
May 2006	12.2	16.1	1	1.2	1.4	3.6	4.3	4.8	7.3	7.8	6.1	10	10
June 2006	12.5	15.7	0.9	1.1	1.3	2.3	2.6	4.3	7.2	7.8	3.7	4.3	4.3
July 2006	12.6	12.7	1	1.1	1.3	3.1	3.5	4.2	7.2	7.6	6.5	22	22
Aug. 2006	12.7	10.1	1	1.1	1.6	4.5	5.6	8.3	7.2	7.7	18.1	24	24
Sept. 2006	12.8	9.5	0.9	1.1	1.4	4.8	7.3	8.1	7.1	7.6	15.8	24.9	24.9
Oct. 2006	12.4	13.6	0.7	0.8	1.2	2.4	2.4	5	7.4	7.8	7.7	12	12
Nov. 2006	12.4	17.6	0.8	1	1.1	4.4	4.8	5.5	7.6	7.9			
Dec. 2006	12	11.7	0.8	1	1.2	3.6	5.5	6	7.3	8			
Jan. 2007	11.6	16.2	1	1.6	2.5	3.6	5.2	7.2	7.4	7.9			
Feb. 2007	11	10.7	2.1	3.6	5.1	4.4	4.8	6.2	7.1	7.8			
March 2007	11.3	24.4	2.6	3.7	6.6	4.9	5.5	6.4	7.2	7.7			
April 2007	11.9	30.3	1.5	2.2	2.5	5.2	6.4	6.8	7.5	7.8	26.6	300	300
Min.	11	7.8	0.7	0.8	1.1	2.3	2.4	4	7	7.5	2.1	3	3
Max.	12.8	30.3	2.6	3.7	6.6	8.7	10.6	15.1	7.6	8	25.5	300	300
Average	12.0	17.1	1.3	1.8	2.6	4.6	5.7	7.2	7.2	7.8	11.1	35.2	35.0

Appendix B  
2005-2007 Effluent Monitoring Data - Nitrogen

Date	Ammonia Nitrogen (April 1-April 30) (mg/l)			Ammonia Nitrogen (May 1-May 31) (mg/l)			Ammonia Nitrogen (June 1-Sept.30) (mg/l)			Ammonia Nitrogen (Oct. 1-March 31) (mg/l)		TKN (mg/l)		Total Nitrite Nitrogen (mg/l)		Total Nitrate Nitrogen (mg/l)		
	Avg.Monthly	Avg.Weekly	Max.Daily	Avg.Monthly	Avg.Weekly	Max.Daily	Avg.Monthly	Avg.Weekly	Max.Daily	Avg.Monthly	Report	Max.Daily	Avg.Monthly	Report	Max.Daily	Avg.Monthly	Report	Max.Daily
Existing Limits	10	10	15	5.0	5.0	8.0	1.0	1.0	1.5	Report	Report	Report	Report	Report	Report	Report	Report	Report
Jan. 2005										0.08	0.08	0.03	0.03	0.09	0.09	0.09	11.1	11.1
Feb. 2005										0.3	0.3	0.05	0.05	0.01	0.01	0.01	10	10
March 2005										0.14	0.16	0.09	0.09	0.06	0.06	0.06	11.5	11.5
April 2005	0.44	0.97	1.27									0.5	0.5	0.03	0.03	0.03	6.4	6.4
May 2005				0.04	0.05	0.06						0.6	0.6	0.01	0.01	0.01	13.3	13.3
June 2005							0.05	0.09	0.11			0.04	0.04	0.01	0.01	0.01	18.6	18.6
July 2005							0.04	0.05	0.06			0.04	0.04	0.01	0.01	0.01	17.8	17.8
Aug. 2005							0.04	0.06	0.06			0.05	0.05	0.01	0.01	0.01	16.2	16.2
Sept. 2005							0.06	0.07	0.08			0.08	0.08	0.01	0.01	0.01	16.6	16.6
Oct. 2005										0.04	0.04	0.07	0.07	0.01	0.01	0.01	16.8	16.8
Nov. 2005										0.04	0.04	0.08	0.08	0.01	0.01	0.01	9.9	9.9
Dec. 2005										0.48	0.48	0.28	0.28	0.04	0.04	0.04	9.4	9.4
Jan. 2006										0.26	0.26	0.1	0.1	0.06	0.06	0.06	11	11
Feb. 2006										0.56	0.56	0.3	0.3	0.01	0.01	0.01	8.3	8.3
March 2006										0.1	0.1	0.3	0.3	0.01	0.01	0.01	10.2	10.2
April 2006	0.09	0.2	0.34									0.3	0.3	0.05	0.05	0.05	11.4	11.4

Appendix B (continued)  
2005-2007 Effluent Monitoring Data - Nitrogen

Date	Ammonia Nitrogen (April 1-April 30) (mg/l)			Ammonia Nitrogen (May 1-May 31) (mg/l)			Ammonia Nitrogen (June 1-Sept.30) (mg/l)			Ammonia Nitrogen (Oct. 1-March 31) (mg/l)		TKN (mg/l)		Total Nitrite Nitrogen (mg/l)		Total Nitrate Nitrogen (mg/l)		
	Avg.Monthly	Avg.Weekly	Max.Daily	Avg.Monthly	Avg.Weekly	Max.Daily	Avg.Monthly	Avg.Weekly	Max.Daily	Avg.Monthly	Report	Max.Daily	Avg.Monthly	Report	Max.Daily	Avg.Monthly	Report	Max.Daily
Existing Limits	10	10	15	5.0	5.0	8.0	1.0	1.0	1.5	Report	Report	Report	Report	Report	Report	Report	Report	Report
May 2006				0.05	0.09	0.12							0.03	0.03	0.01	0.01	12	12
June 2006							0.05	0.07	0.08				0.1	0.1	0.01	0.01	10.2	10.2
July 2006							0.04	0.06	0.04				0.1	0.1	0.01	0.01	15.6	15.6
Aug. 2006							0.04	0.05	0.05				0.29	0.29	0.01	0.01	14	14
Sept. 2006							0.05	0.07	0.07				0.65	0.65	0.01	0.01	13.5	13.5
Oct. 2006											0.04	0.04	0.1	0.1	0.01	0.01	13.7	13.7
Nov. 2006											0.03	0.03	0.1	0.1	0.01	0.01	11.6	11.6
Dec. 2006											0.02	0.02	0.1	0.1	0.01	0.01	13	13
Jan. 2007											0.03	0.03	0.1	0.1	0.02	0.02	10.5	10.5
Feb. 2007											0.02	0.02	0.2	0.2	0.01	0.01	11.1	11.1
March 2007											0.04	0.04	1.6	1.6	0.47	0.47	11.8	11.8
April 2007	0.16	0.35	0.41										0.14	0.14	0.15	0.15	9.2	9.2
Min.	0.09	0.2	0.34	0.04	0.05	0.06	0.04	0.05	0.04	0.02	0.02	0.03	0.03	0.03	0.01	0.01	6.4	6.4
Max.	0.44	0.97	1.27	0.05	0.09	0.12	0.06	0.09	0.56	0.56	0.56	1.6	1.6	1.6	0.47	0.47	18.6	18.6
Average	0.23	0.5	0.7	0.05	0.07	0.09	0.046	0.065	0.1	0.145	0.147	0.229	0.229	0.229	0.041	0.041	12.31	12.31

**Appendix C**  
**2005-2007 Effluent Monitoring Data – DO and Phosphorus**

Date	Total Phosphorus (April 1-April 30) (mg/l)			Total Phosphorus (May 1-Aug. 30) (mg/l)			Total Phosphorus (Sept. 1-March 31) (mg/l)		DO (April 1- Oct.15) mg/l
	Avg.Monthly	Avg.Weekly	Max.Daily	Avg.Monthly	Avg.Weekly	Max.Daily	Avg.Monthly	Max.Daily	Inst.Max
<b>Existing Limits</b>	<b>2.0</b>	<b>2.0</b>	<b>3.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.5</b>	<b>Report</b>	<b>Report</b>	<b>≥ 6.0</b>
Jan. 2005							0.74	0.74	
Feb. 2005							0.86	0.86	
March 2005							1.05	1.05	
April 2005	0.83	1.04	1.04						10.3
May 2005				0.81	0.85	0.86			10
June 2005				0.82	0.86	0.89			9
July 2005				0.87	0.91	0.97			8.6
Aug. 2005				0.86	0.97	1.03			8.1
Sept. 2005							0.85	0.85	8.3
Oct. 2005							0.82	0.82	7.5
Nov. 2005							0.67	0.67	
Dec. 2005							1.09	1.09	
Jan. 2006							0.83	0.83	
Feb. 2006							0.83	0.83	
March 2006							0.95	0.95	
April 2006	1.19	1.29	1.31						9.2
May 2006				0.78	0.91	0.94			9.9
June 2006				0.78	0.85	0.87			9
July 2006				0.86	0.93	0.95			8.1
Aug. 2006				0.86	0.93	0.97			7.9
Sept. 2006							1.32	1.32	8.8
Oct. 2006							0.99	0.99	9.1
Nov. 2006							0.76	0.76	
Dec. 2006							0.94	0.94	
Jan. 2007							0.92	0.92	
Feb. 2007							0.96	0.96	
March 2007							0.66	0.66	
April 2007	0.71	0.83	0.83						11.1
Min.	0.71	0.83	0.83	0.78	0.85	0.86	0.66	0.66	7.5
Max.	1.19	1.29	1.31	0.87	0.97	1.03	1.32	1.32	11.1
Average	0.9	1.05	1.06	0.83	0.90	0.94	0.90	0.90	9.0

**Appendix D**  
**2005-2007 Effluent Data – TRC, Metals, and WET**

Date	Total Residual Chlorine (April 1- Oct.15) (mg/l)		Copper (µg/l)		Lead (mg/l) <sup>*1</sup>		Aluminum (mg/l) <sup>*1</sup>	Zinc (mg/l) <sup>*1</sup>	Whole Effluent Toxicity <sup>*1</sup>	
	Avg.Monthly	Max.Daily	Avg.Monthly	Max.Daily	Avg.Monthly	Max.Daily			LC50	C-NOEC
<b>Existing Limits</b>	<b>21.6</b>	<b>37.4</b>	<b>16.7</b>	<b>24.9</b>	<b>Report</b>	<b>Report</b>	<b>Report</b>	<b>Report</b>	<b>≥ 100%</b>	<b>≥ 50%</b>
Jan. 2005			8.8	8.8						
Feb. 2005			10.2	10.2						
March 2005			6.8	6.8	0.01*	0.01*	0.180	0.026	≥100	100
April 2005	0	0	6	6						
May 2005	0	0	10	10						
June 2005	0	0	9	9	0.01*	0.01*	0.110	0.027	≥100	100
July 2005	0	0	14.5	14.5						
Aug. 2005	0	0	14.4	14.4						
Sept. 2005	0	0	15	15	0.01*	0.01*	0.230	0.022	≥100	100
Oct. 2005	0	0	15.3	15.3						
Nov. 2005			11	11						
Dec. 2005			15.1	15.1	0.01*	0.01*	0.400	0.027	≥100	75
Jan. 2006			11.7	11.7						
Feb. 2006			9.2	9.2						
March 2006			8.3	8.3	0.01*	0.01*	0.100	0.036	≥100	75
April 2006	0	0	7.9	7.9						
May 2006	0	0	13.4	13.4						
June 2006	0	0	4.8	4.8	0.01*	0.01*	0.100*	0.023	≥100	75
July 2006	0	0	12.4	12.4						
Aug. 2006	0	0	15	15						
Sept. 2006	0	0	15.8	15.8	0.01*	0.01*	0.410	0.026	≥100	75
Oct. 2006	0	0	10	10						
Nov. 2006			9.9	9.9						
Dec. 2006			12.7	12.7	0.01*	0.01*	0.140	0.010*	≥100	100
Jan. 2007			9.1	9.1						
Feb. 2007			12.8	12.8						

**Appendix D (Continued)**  
**2005-2007 Effluent Data – TRC, Metals, and WET**

Date	Total Residual Chlorine (April 1- Oct.15) (mg/l)		Copper (µg/l)		Lead (mg/l) <sup>*1</sup>		Aluminum (mg/l) <sup>*1</sup>	Zinc (mg/l) <sup>*1</sup>	Whole Effluent Toxicity <sup>*1</sup>	
	Avg.Monthly	Max.Daily	Avg.Monthly	Max.Daily	Avg.Monthly	Max.Daily			LC50	C-NOEC
<b>Existing Limits</b>	21.6	37.4	16.7	24.9	Report	Report	Report	Report	≥ 100%	≥ 50%
<b>March 2007</b>			11	11	0.01*	0.01*	0.230	0.027	≥100	75
<b>April 2007</b>	0	0	6.9	6.9						
<b>Min.</b>	0	0	4.8	4.8	0.01*	0	0.1		≥100	75
<b>Max.</b>	0	0	15.8	15.8	0.01*	0	0.41		≥100	100
<b>Average</b>	0	0	11.0	11.0	0.01*	0	0.211		≥100	86

\* = Less Than

Note: 1. Lead, Aluminum, and WET test data are from quarterly WET test reports submitted by permittee.

2. On January 19 and 20, 2005, two 24-hour composite effluent samples were collected and analyzed for total polychlorinated biphenyls (PCBs) using EPA Standard Method 608. All of the results were below detection level. The data was submitted as an attachment to the permit attachment. In addition, eleven sludge samples were collected and analyzed for PCBs from 1995-2005 as part of the required priority pollutant scan. The sludge cake was analyzed for the presence of PCBs using EPA Method 8082. All of the sludge PCB sample results were below detection level.

**Appendix E**  
**Massachusetts POTW Discharges to the Housatonic River**

FACILITY NAME	PERMIT NUMBER	DESIGN FLOW (MGD) <sup>1</sup>	AVERAGE FLOW (MGD) <sup>2</sup>	TOTAL NITROGEN (mg/l) <sup>3</sup>	TOTAL NITROGEN - Existing Flow(lbs/day) <sup>4</sup>
<b>MASSACHUSETTS</b>					
Crane	MA0000671		3.100	8.200	212.003
Great Barrington	MA0101524	3.200	2.600	17.000	368.628
Lee	MA0100153	1.000	0.870	14.500	105.209
Lenox	MA0100935	1.190	0.790	11.800	77.745
Mead Laurel Mill	MA0001716		1.500	6.400	80.064
Mead Willow Mill	MA0001848		1.100	4.600	42.200
Pittsfield	MA0101681	17.000	12.000	12.400	1240.992
Stockbridge	MA0101087	0.300	0.240	11.100	22.218
West Stockbridge	MA0103110	0.076	0.018	15.500	2.327
<b>Massachusetts Totals</b>			<b>22.218</b>		<b>2151.386</b>

1. Design flow – typically included as a permit limit in MA and VT but not in NH.
2. Average discharge flow for 2004 – 2005. If no data in PCS, average flow was assumed to equal design flow.
3. Total nitrogen value based on effluent monitoring data. If no effluent monitoring data, total nitrogen value assumed to equal average of MA secondary treatment facilities (19.6 mg/l), average of MA seasonal nitrification facilities (15.5 mg/l), or average of MA year round nitrification facilities (12.7 mg/l). Average total nitrogen values based on a review of 27 MA facilities with effluent monitoring data. Facility is assumed to be a secondary treatment facility unless ammonia data is available and indicates some level of nitrification.
4. Current total nitrogen load.

**EXHIBIT 2**

**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),

**City of Pittsfield  
Department of Public Works  
Pittsfield, Massachusetts 01201**

is authorized to discharge from a facility located at

**Pittsfield Wastewater Treatment Plant  
901 Holmes Road  
Pittsfield, Massachusetts 01201**

to receiving water named **Housatonic River (Class B – Warm Water Fishery)**

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

The following parties are named as co-permittees for specific activities required by Parts I.D. and E. of this permit. The responsible authorities are:

**Town of Dalton  
462 Main Street  
Dalton, MA 01226**

**Town of Lenox  
Department of Public Works  
275 Main Street  
Lenox, MA 01240**

**Town of Hinsdale  
35 South Street  
P.O. Box 803  
Hinsdale, MA 01235**

**Town of Lanesborough  
83 N. Main Street  
Lanesborough, MA 01237**

This permit shall become effective on the date of signature if no comments are received during public notice. If comments are received during public notice, this permit shall become effective no sooner than 30 days after signature.

This permit and the authorization to discharge expire at midnight, five years from the last day of the month preceding the effective date.

This permit supersedes the permit issued on October 3, 2000.

This permit consists of 16 pages in Part I including effluent limitations, monitoring requirements, **Attachment A (Freshwater Chronic Toxicity Test Procedure and Protocol)**, **Attachment B (Sludge Compliance Guidance)**, **Attachment C (Reassessment of Technically Based Local Limits)**, and **Attachment D (Industrial Pretreatment Program Annual Report)**, and Part II including General Conditions and Definitions.

Signed this      day of

\_\_\_\_\_  
Stephen S. Perkins, Director  
Office of Ecosystem Protection  
Environmental Protection Agency  
Boston, MA

\_\_\_\_\_  
Glenn Haas, Director  
Division of Watershed Management  
Department of Environmental Protection  
Commonwealth of Massachusetts  
Boston, MA

Part I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Outfall 003

a. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from outfall serial number 003 to the Housatonic River. Such discharge shall be limited and monitored by the permittee as specified below.

Effluent Characteristic	Unit	Discharge Limitation			Monitoring Requirement <sup>*3</sup>	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow <sup>*2</sup> Flow <sup>*2</sup>	MGD MGD	17.0 Report	— —	Report Report	Continuous Continuous	Recorder Recorder
CBOD <sub>5</sub> <sup>*4</sup> CBOD <sub>5</sub> <sup>*4</sup>	mg/l lbs/day	10 1420	10 1420	Report Report	5/Week 5/Week	24-Hour Composite <sup>*5</sup> 24-Hour Composite <sup>*5</sup>
TSS <sup>*4</sup> TSS <sup>*4</sup>	mg/l lbs/day	20 2840	25 3550	Report Report	5/Week 5/Week	24-Hour Composite <sup>*5</sup> 24-Hour Composite <sup>*5</sup>
pH Range <sup>*1</sup>		6.5-8.3 SU (See Permit Part I.A.1.c.)			2/Day	Grab
<i>E. coli</i> <sup>*1,*6</sup> (April 1 <sup>st</sup> - October 31 <sup>st</sup> )	cfu/100 ml	126	—	409	2/Week	Grab
Fecal Coliform Bacteria <sup>*6</sup> (April 1 <sup>st</sup> - October 31 <sup>st</sup> )	cfu/100 ml	200	—	400	2/Week	Grab

Effluent Characteristic Parameter	Unit	Discharge Limitation			Monitoring Requirement <sup>3</sup>	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Total Residual Chlorine <sup>*1,7,*8</sup> (April 1 <sup>st</sup> - October 31 <sup>st</sup> )	µg/l	21.7	—	37.4	2/Day	Grab
Dissolved Oxygen <sup>*1</sup> (April 1 <sup>st</sup> - October 31 <sup>st</sup> )	mg/l	Maintain a minimum of 6.0 mg/l at all times			1/Day	Grab
Phosphorus, Total <sup>*9</sup> (April 1 <sup>st</sup> - October 31 <sup>st</sup> ) (November 1 <sup>st</sup> - March 31 <sup>st</sup> )	mg/l mg/l	0.1 1.0	— —	Report —	3/Week 1/Week	24-Hour Composite <sup>*5</sup> 24-Hour Composite <sup>*5</sup>
Ortho-phosphorus, dissolved (November 1 <sup>st</sup> - March 31 <sup>st</sup> ) Ortho-phosphorus, dissolved (November 1 <sup>st</sup> - March 31 <sup>st</sup> )	mg/l lbs/day	Report Report	— —	— —	1/Week 1/Week	24-Hour Composite <sup>*5</sup> 24-Hour Composite <sup>*5</sup>
Total Nitrogen <sup>*10</sup>	mg/l lbs/day	Report Report	— —	Report Report	1/Week 1/Week	24-Hour Composite <sup>*5</sup> 24-Hour Composite <sup>*5</sup>

Effluent Characteristic Parameter	Unit	Discharge Limitation			Monitoring Requirement <sup>3</sup>	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Ammonia Nitrogen <sup>*11</sup> (April 1 <sup>st</sup> - April 30 <sup>th</sup> ) (May 1 <sup>st</sup> - May 31 <sup>st</sup> ) (June 1 <sup>st</sup> - September 30 <sup>th</sup> ) (Oct. 1 <sup>st</sup> - March 31 <sup>st</sup> )	mg/l	10	10	15	2/Week	24-Hour Composite <sup>*5</sup>
	mg/l	5.0	5.0	8.0	2/Week	24-Hour Composite <sup>*5</sup>
	mg/l	1.0	1.0	1.5	2/Week	24-Hour Composite <sup>*5</sup>
	mg/l	Report	—	Report	1/Week	24-Hour Composite <sup>*5</sup>
Total Kjeldahl Nitrogen <sup>*10</sup> Total Nitrate Nitrogen <sup>*10</sup> Total Nitrite Nitrogen <sup>*10</sup>	mg/l	Report	—	Report	1/Week	24-Hour Composite <sup>*5</sup>
	mg/l	Report	—	Report	1/Week	24-Hour Composite <sup>*5</sup>
	mg/l	Report	—	Report	1/Week	24-Hour Composite <sup>*5</sup>
Aluminum	µg/l	171	—	Report	1/Month	24-Hour Composite <sup>*5</sup>
Copper, Total <sup>*12</sup>	µg/l	16.7	—	24.9	1/Month	24-Hour Composite <sup>*5</sup>
Lead, Total <sup>*13</sup>	µg/l	Report	—	Report	1/Month	24-Hour Composite <sup>*5</sup>
Whole Effluent Toxicity <sup>*14,*15,*16,*17</sup>	%	LC <sub>30</sub> ≥ 100% C-NOEC ≥ 50%			4/Year 4/Year	24-Hour Composite <sup>*5</sup> 24-Hour Composite <sup>*5</sup>

## Footnotes:

- \*1. Required for State Certification
- \*2. Report annual average, monthly average, and the maximum daily flow. The limit is an annual average, which shall be calculated as the arithmetic mean of the monthly average flow for the reporting month and the monthly average flows of the eleven previous months.
- \*3. All required effluent samples shall be collected at the point specified in Part I.A.1.g. of this permit. Any change in the sampling location must be reviewed and approved in writing by EPA and MassDEP.
- 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 attached to the applicable discharge monitoring report (DMR) that is submitted to EPA.
- All samples shall be tested using the methods found in 40 CFR § 136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR § 136. All samples shall be 24-hour composites unless specified as a grab sample in 40 CFR § 136.
- \*4. Sampling is required for the influent and effluent.
- \*5. A 24-hour composite sample shall consist of at least twenty-four (24) grab samples taken during one consecutive 24-hour period, either collected at equal intervals and combined proportional to flow or continuously collected proportional to flow.
- \*6. *E. coli* and fecal coliform bacteria limitations and monitoring requirements are seasonal (April 1<sup>st</sup> through October 31<sup>st</sup>). The monthly average limits are expressed as geometric means. The fecal coliform limitations and monitoring requirements shall expire one year from the effective date of this permit. 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 this permit. *E. coli* and fecal coliform bacteria samples shall be collected concurrently. Bacteria samples shall also be collected concurrently with total residual chlorine samples.
- \*7. Total residual chlorine (TRC) limitations and monitoring requirements are in effect from April 1<sup>st</sup> through October 31<sup>st</sup>. The permittee is not authorized to discharge chlorine from November 1<sup>st</sup> through March 31<sup>st</sup>. Each week, two of the total residual chlorine samples shall be collected concurrently with the required fecal coliform bacteria and *E. coli* samples.

The minimum level (ML) for total residual chlorine is defined as 20 µg/l. EPA defines the minimum level as the level at which the entire analytical system shall give recognizable signal and calibration points. For total residual chlorine, this is the minimum level for chlorine using EPA-approved methods found in Standard Methods for the Examination of Water and Wastewater, 20<sup>th</sup> Edition, Method 4500CL-E and G. One of these methods must be used to determine total residual chlorine. For effluent limitations less than 20 µg/l, compliance/non-compliance shall be determined based on the ML. Sample results of 20 µg/l or less shall be reported as zero on the discharge monitoring report (DMR).

For every day that more than two TRC samples are analyzed, the monthly DMR shall include an attachment documenting the individual grab sample results for that day, the date and time each sample was collected, the analytical method used, and a summary of any operational modifications implemented in response to the sample results. This requirement applies to all samples taken, including screening level and process control samples. All test results using an EPA-approved analytical method shall be used in the calculation and reporting of the monthly average and maximum daily data submitted on the DMR (see Part II Section D.1.d.(2)).

- \*8 Chlorination and dechlorination systems shall include an alarm system within 60 days of the effective date of the permit. Any interruption or malfunction of the chlorine dosing system that may have resulted in levels of chlorine which were inadequate for achieving effective disinfection, or interruptions or malfunctions of the disinfection system that may have resulted in excessive levels of chlorine in the final effluent, shall be reported with the monthly DMRs. The report shall include the date and time of the interruption or malfunction, the nature of the problem, and the estimated amount of time that reduced levels of chlorine or dechlorination chemicals were added to the effluent.
- \*9 The 0.1 mg/l total phosphorus limit is a 60 day rolling average limit and applies for the period of April 1<sup>st</sup> - October 31<sup>st</sup>. The 60 day average value for each day in a given month, beginning on the 60<sup>th</sup> day after April 1<sup>st</sup>, must be calculated and the highest 60 day average value for that month must be reported on the monthly discharge monitoring report (DMR). In addition, the maximum daily value must be reported for each month. For the months of April and May, the 30 day average value shall be reported as a report-only requirement. For the first four years that this permit is in effect, the permittee shall achieve the following total phosphorus limitations from April 1<sup>st</sup> - October 31<sup>st</sup> while working towards achieving compliance with the new 0.1 mg/l seasonal total phosphorus limitation (see Part I.B. of this permit, Schedule of Compliance): 1.0 mg/l average monthly, 1.0 mg/l average weekly, and 1.5 mg/l maximum daily.
- The 1.0 mg/l limit is a monthly average limit and applies for the period of November 1<sup>st</sup> - March 31<sup>st</sup>. The monthly average and maximum daily values shall be reported on each month's discharge monitoring report.
- Monitoring results for total phosphorus during the winter months (November 1<sup>st</sup> - March 31<sup>st</sup>) shall be report-only for the first winter period that this permit is in effect (see Part I.B. of this permit, Schedule of Compliance).
- These permit limits may be modified, subject to public notice and comment, based upon revisions to the water quality standards, compliance with the requirements of a Total Maximum Daily Load (TMDL), or upon a demonstration that an alternative permit limit will achieve water quality standards and the goals of the Clean Water Act.
- \*10 See Part I.F. Special Conditions, for requirements to evaluate and implement optimization of nitrogen removal. The weekly total nitrogen, total Kjeldahl nitrogen, nitrite, and nitrate samples shall be collected concurrently. These samples shall also be collected concurrently with one of the ammonia nitrogen samples.
- \*11 One of the ammonia nitrogen samples shall be collected concurrently with the weekly total nitrogen, total Kjeldahl nitrogen, nitrite, and nitrate samples.

- \*12 Samples shall be analyzed for total copper using one of the EPA-approved analytical methods found in 40 CFR § 136 that have a minimum level (ML) of 5.0 µg/l. Sample results of 5.0 µg/l or less shall be reported as zero on the discharge monitoring report.
- \*13 Samples shall be analyzed for lead using one of the EPA-approved analytical methods found in 40 CFR § 136 that have a minimum level (ML) of 0.5 µg/l. Sample results of 0.5 µg/l or less shall be reported as zero on the discharge monitoring report.
- \*14 The LC<sub>50</sub> is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limitation means that a sample of 100% effluent (no dilution) shall cause no more than a 50% mortality rate.
- \*15 The chronic-no observed effect concentration (C-NOEC) is defined as the highest concentration of toxicant or effluent which organisms are exposed to in a life cycle or partial life cycle test which causes no adverse effect on growth, survival, or reproduction at a specific time of observation determined from hypothesis testing where the test results exhibit a linear dose-response relationship. However, where the test results do not exhibit a linear dose-response relationship, the permittee must report the lowest concentration where there is no observable effect. The "50% or greater" limit is defined as a sample which is composed of 50% (or greater) effluent, the remainder being dilution water. This is a maximum daily limit derived as a percentage of the inverse of the dilution factor of 1.97.
- \*16 The permittee shall conduct chronic (and modified acute) toxicity tests four times per year, in accordance with the schedule table below. The chronic test may be used to calculate the LC<sub>50</sub> at the 48-hour exposure interval. The permittee shall test the daphnid, *Ceriodaphnia dubia*, only. Toxicity test samples shall be collected during the second week of the months of January, April, July, and October. The test results shall be submitted by the last day of the month following the completion of the test. The test results are due February 28<sup>th</sup>, May 31<sup>st</sup>, August 31<sup>st</sup>, and November 30<sup>th</sup>, respectively. The tests must be performed in accordance with the test procedures and protocols specified in **Attachment A** of this permit.

Test Dates Second Week in	Submit Results By:	Test Species	Acute Limit LC <sub>50</sub>	Chronic Limit C-NOEC
January April July October	February 28 <sup>th</sup> May 31 <sup>st</sup> August 31 <sup>st</sup> November 30 <sup>th</sup>	<i>Ceriodaphnia dubia</i> (daphnid)  See <b>Attachment A</b>	≥ 50%	≥ 100%

After submitting a **minimum** of four consecutive sets of whole effluent toxicity (WET) test results, all of which demonstrate compliance with the WET permit limits, the permittee may request a reduction in the frequency of required WET testing. The permittee is required to continue testing at the frequency specified in the permit until notice is received by certified mail from the EPA that the WET testing requirements have been changed.

- \*17. 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**. If the permittee uses an alternative dilution water, the ambient water will still need to be tested.

## Part I.A.1. (continued)

- b. The discharge shall not cause a violation of the water quality standards of the receiving waters.
  - c. The pH of the effluent shall not be less than 6.5 nor greater than 8.3 Standard Units (SU) at any time.
  - 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.
  - f. 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.
  - g. Samples taken in compliance with the monitoring requirements stated above shall be taken a point prior to mixing with other streams and shall be representative of the discharge. Samples shall be taken prior to chlorination with the exception of fecal coliform bacteria, *E. coli*, and total residual chlorine samples, which shall be taken after disinfection.
  - h. If the average annual flow in any calendar year exceeds 80 percent of the facility's design flow, the permittee shall submit a report to MassDEP by March 31<sup>st</sup> of the following calendar year describing their plans for future flow increases and how they will maintain compliance with the flow limitation and all other effluent limitations and conditions in the permit.
2. All POTWs must provide adequate notice to the Director of the following:
- a. Any new introduction of pollutants into the POTW from an indirect discharger in a primary industry category discharging process water; and/or
  - b. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

c. For purposes of this paragraph, adequate notice shall include information on:

- (1) the quantity and quality of effluent introduced into the POTW; and
- (2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

3. Prohibitions Concerning Interference and Pass Through

a. Pollutants introduced into the POTW by a non-domestic source (user) shall not pass through the POTW or interfere with the operation of the works.

4. Toxics Control

- a. The permittee shall not discharge any pollutants or combinations 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 that has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

5. 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. SCHEDULE OF COMPLIANCE**

1. 0.1 mg/l Total Phosphorus Limitation ( April 1<sup>st</sup> - October 31<sup>st</sup>)

No later than four years from the effective date of the permit, the permittee shall achieve compliance with the 0.1 mg/l total phosphorus limitation from April 1<sup>st</sup> - October 31<sup>st</sup>. This limit shall be achieved in accordance with the following schedule:

- a. Complete conceptual design of necessary upgrades no later than twelve months from the effective date of the permit.
- b. Complete plans and specifications for necessary upgrades no later than twenty-four months from the effective date of the permit.
- c. Complete construction of necessary upgrades and attain compliance with the April 1<sup>st</sup> - October 31<sup>st</sup> final effluent limits for total phosphorus no later than forty-eight months from the effective date of the permit.

During this four-year period, the following total phosphorus limitations shall be met: 1.0 mg/l average monthly, 1.0 mg/l average weekly, and 1.5 mg/l maximum daily. The permittee shall monitor the total phosphorus concentration in the discharge at the frequency specified in Part I.A.1.a. of this permit.

2. 1.0 mg/l Total Phosphorus Limitation (November 1<sup>st</sup> - March 31<sup>st</sup>)

The 1.0 mg/l total phosphorus limit for the winter period (November 1<sup>st</sup> - March 31<sup>st</sup>) shall become effective one year from the effective date of the permit. Specifically, the permittee shall report the average monthly and maximum daily total phosphorus concentrations for the first winter period following the effective date of the permit while working towards meeting this new limitation.

**C. SPECIAL CONDITIONS**

Within **one year of the effective date of the permit**, the permittee shall complete an evaluation of alternative methods of operating the existing wastewater treatment facility to optimize the removal of nitrogen, and submit a report to EPA and the MassDEP documenting this evaluation and presenting a description of recommended operational changes. The methods to be evaluated include, but are not limited to, operational changes designed to enhance nitrification (seasonal and year-round), incorporation of anoxic zones, septage receiving policies and procedures, and side stream management. The permittee shall implement the recommended operational changes in order to maintain the existing mass loading of total nitrogen. The annual average total nitrogen load from this facility (2004 - 2005) is estimated to be 1240.992 lbs/day.

The permittee shall also submit an annual report to EPA and the MassDEP by **February 1<sup>st</sup>** of each year, that summarizes activities related to optimizing nitrogen removal efficiencies, documents the annual nitrogen discharge load from the facility, and tracks trends relative to the previous year.

**D. UNAUTHORIZED DISCHARGES**

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from outfall 003, as described 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 to EPA and MassDEP in accordance with Section D.1.e.(1) of the General Requirements of this permit (twenty-four hour reporting).

Notification of SSOs to MassDEP shall be made on its SSO reporting form (which includes MassDEP regional office telephone numbers). The reporting form and instructions for its completion may be found on-line at: <http://www.mass.gov/dep/water/approvals/surffms.htm#sso>.

The following towns that contribute wastewater flow to the Pittsfield Wastewater Treatment Plant shall also report discharges of wastewater from any other point source, including sanitary sewer overflows (SSOs), which are not authorized by this or any other permit and shall be reported in accordance with Section D.1.e.(1) of the General Requirements of this permit (twenty-four hour reporting): Dalton, Lenox (North), Hinsdale, and Lanesborough.

**E. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM**

Operation and maintenance of the sewer system shall be in compliance with the General requirements of Part II of this permit and the following terms and conditions: