

1. Maintenance Staff.

The permittee and co-permittees 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. Preventative Maintenance Program

The permittee and co-permittees shall maintain an ongoing preventative maintenance program to prevent 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 and co-permittees shall develop and implement a plan to control infiltration and inflow (I/I) to the separate sewer system. The plan shall be submitted to EPA and MassDEP **within six months of the effective date** of this permit (see page 1 of this permit for the effective date) and shall describe the permittee's and co-permittees' programs for preventing I/I-related effluent limit violations, and all unauthorized discharges of wastewater, including overflows and by-passes due to excessive I/I.

The plans shall include:

- An ongoing program to identify and remove sources of I/I. The program shall include the necessary funding level and the source(s) of funding.
- An inflow identification and control program that focuses on the disconnection and redirection of illegal sump pumps and roof down spouts. Priority should be given to removal of public and private inflow sources that are upstream from, and potentially contribute to, known areas of sewer system backups and/or overflows.
- Identification and prioritization of areas that will provide increased aquifer recharge as the result of reduction/elimination of I/I to the system.
- An educational public outreach program for all aspects of I/I control, particularly private inflow.

Reporting Requirements:

A summary report of all actions taken to minimize I/I during the previous calendar year shall be submitted to EPA and MassDEP annually, by **February 28th**. The summary report shall, at a minimum, include:

- A map and a description of inspection and maintenance activities and corrective actions taken during the previous year.
- Expenditures for any I/I-related maintenance activities and corrective actions taken during the previous year.
- A map with areas identified for I/I-related investigation/action in the coming year.

- A calculation of the annual average I/I and the maximum monthly I/I for the reporting year.
- A report of any I/I-related corrective actions taken as a result of unauthorized discharges reported pursuant to 314 CMR § 3.19(20) and reported pursuant to the Unauthorized Discharges section of this permit.

4. Alternative 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).

F. SLUDGE CONDITIONS

1. The permittee is required to 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 (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 (**Attachment B**) to determine appropriate conditions. 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. Reports are due annually by **February 19th**. Reports shall be submitted to the address 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. In such case, the permittee is required only to submit an annual report by **February 19th** 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

G. DEVELOPMENT OF LIMITATIONS FOR INDUSTRIAL USERS

1. 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.
2. The permittee shall develop and enforce specific effluent limits (local limits) for any Industrial User(s), and all other users as appropriate, which together with appropriate changes in the POTW's facilities or operation, are necessary to ensure compliance with the POTW's NPDES permit or sludge use or disposal practices. Specific local limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond. **Within 120 days of the effective date of this permit**, the permittee shall prepare and submit a written technical report to EPA analyzing local limits. As part of this evaluation, the permittee shall assess how the POTW performs with respect to the influent and effluent of pollutants, water quality concerns, sludge quality, sludge processing concerns/inhibition, biomonitoring results, activated sludge inhibition, worker health and safety, and collection system concerns. In preparing this evaluation, the permittee shall complete and submit the attached form (**Attachment C**) with the technical evaluation to assist in determining whether existing local limits need to be revised. Justifications and conclusions should be based on actual plant data, if available, and should be included in the report. Upon completion of its review, EPA will notify the POTW if the evaluation reveals that the local limits should be revised. Should the local limits need to be revised, the permittee shall complete the revisions within 120 days of notification by EPA and submit the revisions to EPA for approval. If local limits are to be updated, revisions should be performed in accordance with EPA's Local Limits Development Guidance (July 2004).

H. INDUSTRIAL PRETREATMENT PROGRAM

1. The permittee shall implement an industrial pretreatment program (IPP) as required by 40 CFR Part 403. The industrial pretreatment program shall be operated in accordance with the legal authorities, policies, procedures, and financial provisions described in the permittee's approved Pretreatment Program and the General Pretreatment Regulations at 40 CFR Part 403. At a minimum, the permittee shall perform the following activities in implementing and operating its industrial pretreatment program:
 - a. Carry out the inspection, surveillance, and monitoring procedures which will determine, independent of information supplied by the industrial user, whether the industrial user is in compliance with the pretreatment standards.
 - b. Issue or renew all necessary industrial user control mechanisms within 90 days of their expiration date or within 180 days after the industry has been determined to be a significant industrial user.
 - c. Obtain appropriate remedies for noncompliance by any industrial user with any pretreatment standard and/or requirement.
 - d. Maintain an adequate revenue structure for continued implementation of the Pretreatment Program.
2. The permittee shall provide EPA and MassDEP with an annual report required by 40 CFR § 403.12(i) by **October 31st** of each year for the permittee's reporting period of September 1st-August 31st. The annual report shall be consistent with the format described in **Attachment D** of this permit.
3. The permittee must obtain approval from EPA prior to making any significant changes to the industrial pretreatment program in accordance with 40 CFR § 403.18(c).
4. The permittee must assure that applicable National Categorical Pretreatment Standards are met by all categorical industrial users of the POTW. These standards are published in the Federal Regulations at 40 CFR 405 et. seq.
5. On October 14, 2005 EPA published in the Federal Register final changes to the General Pretreatment Regulations. The final "Pretreatment Streamlining Rule" is designed to reduce the burden to industrial users and provide regulatory flexibility in technical and administrative requirements of industrial users and POTWs. Within 90 days of the effective date of this permit, the permittee must submit to EPA 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 POTW legal authority is not consistent with the required changes, they must be revised and submitted to EPA for review.

I. 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 Form(s) postmarked no later than the 15th day of the following month.

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, Massachusetts 02114

The State Agency is:

Massachusetts Department of Environmental Protection
Western Regional Office-Bureau of Resource Protection
436 Dwight Street
Springfield, Massachusetts 01103

Signed and dated Discharge Monitoring Report Forms 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

Signed and dated Pretreatment Program reports required by this permit shall be submitted to EPA and the State at:

Environmental Protection Agency
Attn: Justin Pimpore
One Congress Street Suite 1100 - CMU
Municipal Assistance Unit (CMU)
Boston, Massachusetts 02114

The State Agency is:

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention, Industrial Wastewater Section
1 Winter Street
Boston, Massachusetts 02108

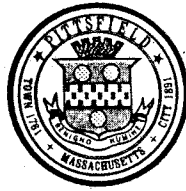
J. STATE PERMIT CONDITIONS

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

DRAFT

EXHIBIT 3



CITY OF PITTSFIELD

DEPARTMENT OF PUBLIC WORKS & UTILITIES, CITY HALL, 70 ALLEN STREET, PITTSFIELD, MA 01201 413-499-9330

February 5, 2008

Ms. Meredith Decelle
Office of Ecosystem Protection
Environmental Protection Agency – Region 1
1 Congress Street, Suite 1100 (CMP)
Boston, MA 02114-2023

Mr. Glenn Haas, Director
Division of Watershed Management
Massachusetts Department of Environmental Protection
1 Winter Street
Boston, MA 02108

RE: Draft NPDES Permit No. MA0101681

To Whom It May Concern:

On December 28, 2007, the City of Pittsfield received the draft National Pollutant Discharge Elimination System (NPDES) Permit for the City's Wastewater Treatment Plant (WWTP). The City takes great pride in accepting its role in protecting the environment, and the City's WWTP consistently produces high quality wastewater effluent. Based on our review of the proposed NPDES Permit, the City strongly believes the new requirements contained in the permit are not fair and not balanced. The changes are one-sided and do not consider the affordability to the City's residents as compared to the limited perceived gains in environmental protection. The City requests the Environmental Protection Agency (EPA) work cooperatively with the City to develop a fair and balanced permit that will not result in enormous rate impacts to the users of the wastewater system, while continuing to meet the goals of the Clean Water Act.

Overall this draft permit represents a complete revision from the prior permit and an enormous financial burden to the City. The document was issued without communication with City officials as to the dramatic changes that would be presented in the draft permit. The City does not accept the proposed changes to the existing permit. They are neither fair nor environmentally beneficial. The following narrative represents general comments regarding the draft permit.

1. Additional Permittees: The document lists four connected Towns as co-permittees to the draft permit. The City is responsible for the administration, finance, operation and maintenance of facilities located within the City limits. The City

allows the four connected communities to use the treatment plant for an economic and environmental benefit and manages them as customers. The City has no responsibility or control over the individual community's infrastructure. The City can not take on the responsibility of the reporting requirements and management of their collection systems.

2. Effluent Limitations: The permit makes several significant changes to effluent permit limits. The indicator organism for pathogenic bacteria has been modified, the phosphorus limit was reduced by more than 90%, and a new limit for aluminum was added:

Phosphorus: This limit represents the single most significant change in the NPDES permit. The current limit is seasonal with an April average daily limit of 2.0 mg/l and a May through August limit of 1.0 mg/l. The proposed limit is 0.1 mg/l from April to October and 1.0 mg/l from November through March each year. The City is extremely concerned by the imposition of this limit for several reasons.

The City discharges high quality effluent for a number years contributing to the overall improvement in the health of the Housatonic River, being the first major discharger to treat to advanced wastewater limits. The City has removed approximately 70% of the phosphorus from its effluent for a number of years. The WWTP has also been the recipient of awards for their efforts and dedication to environmental protection.

The limit is proposed without benefit of a Total Maximum Daily Load (TMDL) study for phosphorus in the Housatonic. The Massachusetts Year 2006 Integrated List of Waters 303(d) does not identify nutrients as a pollutant of concern for the River. Those identified requiring a TMDL are priority organics, pathogens, and turbidity. Both of these seem to contradict the limited information presented in the Fact Sheet for the rationale to propose the limit.

The calculations and sources of background information do not seem appropriate to develop the limit for Pittsfield. Additionally, all other NPDES permitted facilities located along the Housatonic are not being required to remove phosphorus to the proposed permit limit. Permits issued as recently as the end of last year do not contain limits in the range of the proposed Pittsfield limit.

The WWTP is not capable of meeting the limit without significant additional infrastructure. The cost to attain the new limit is substantial; the City has recently been studying its infrastructure systems in an effort to develop accurate projections for capital improvement spending and has determined that there are substantial needs within the existing water, storm water, and wastewater utilities. The cost to remove phosphorus to the proposed permit level is estimated in the tens of millions of dollars. The spending of the City's limited

funds to remove a small fraction of phosphorus seems inappropriate in the face of the current capital infrastructure needs.

Aluminum: The permit proposes a limit for aluminum, which the facility will be unable to meet on a consistent basis. The pollutant is not a priority pollutant and is extremely abundant in the natural environment. The source data regarding the development of the aluminum limit is not robust and data sets cited in the study are contrary to the water quality criteria proposed. The proposed limit for aluminum does not seem to recognize the use of aluminum salts for water and wastewater treatment. The City's water plant uses aluminum-based chemistry to clean the water and the residuals are disposed to the treatment plant. Additionally, the WWTP uses aluminum-based chemistry to remove phosphorus. The elimination of aluminum from the water and wastewater processes will not be easily attained and may require the investment of million of dollars and increased operation and maintenance (O&M) costs.

E. coli: The permit changes the indicator organism for pathogen reduction effectiveness testing. The change is without benefit of study by the City to determine if the WWTP is capable of meeting the proposed limit.

3. Additional Monitoring: The draft permit adds several new monitoring requirements as well as increasing the frequency of many of the test parameters. The overall increase in samples collected and analyzed by the laboratory is more than 40%. Many of the tests require substantial effort and cost for equipment and materials. Not only will this increase the annual operating expense to the WWTP, but also will require the hiring of additional laboratory staff. The increased monitoring does not provide any additional protection to the environment and appears to only accomplish having the City pay to develop information for regulators to issue more unfounded stringent limits.
4. Whole Effluent Toxicity: The permit requirements remain unchanged; however the City repeatedly passed this test over the last permitting cycle. We request that the requirement be reduced to two times per year, which is provided by EPA's existing guidance documents included in the draft permit.
5. Routine Sampling Program: The City performs all testing in conformance with the existing permit, federal and state regulations, and Standard Methods for sample analysis. In combination with these requirements, the City uses several standard operating procedures to perform all sampling and testing. The requirement appears unnecessary and redundant.
6. Total Residual Chlorine: The draft permit extends the disinfection season by two weeks as well as requires the installation of an "alarm system" for the chlorination and dechlorination systems. The City consistently meets the permit limits and is unaware of any incident relative to the Housatonic River arising from the discharge of un-disinfected effluent. The City recently made extensive upgrades to the

disinfection system. The incorporation of an "alarm system" will be costly and the extension of the disinfection season will result in additional costs for capital and chemical due to the likelihood of low temperature impacts to the chemical feed systems. The City is confident that the recently upgraded systems are entirely reliable and do not require an "alarm system".

7. POTW Notice – Industrial: The draft permit identifies several new POTW reporting requirements including a severely restrictive condition regarding industrial dischargers. The specific condition requires "adequate notice" of "any" new or substantial change in pollutants. This condition is extremely broad by definition and onerous.
8. Special Conditions: The draft permit requires the City to optimize the facility for the removal of nitrogen. The permit also requires an annual report. The City believes that this requirement is unfair and without basis, likely leading to an unattainable limit that will result in other costly upgrades to the WWTP. The existing WWTP was designed for the oxidation of ammonia compounds and not for nitrate removal. There are no opportunities within the existing facilities to provide for further nitrogen reduction. This requirement also seems to counter the back-up in the Fact Sheet included with the draft permit which indicates that no further reductions in Total Nitrogen are required to meet the Connecticut goals.
9. Unauthorized Discharges: Any requirements for connected communities need to be addressed to those communities.
10. Operation and Maintenance: There are several new requirements contained within this section including the official development of an O&M program, an Infiltration and Inflow control plan, and an annual report including the co-permittees. The City currently maintains a preventative maintenance program. The City is also underway with an extensive I/I and SSES program to determine the capital improvements needed to sustain the infrastructure. New requirements for another program are not justified. This additional requirement is burdensome. It also appears that the City is responsible to collect data from connected communities and submit this to the EPA and MassDEP. The City currently has no means by which to require the submittal of this information or the ability to enforce a requirement under this section. The EPA and MassDEP should require this information to be collected directly from the co-permittees.
11. Development of Limitations for Industrial Users: The City currently maintains and Industrial Pretreatment Program and is updating several portions of its program. Currently based upon the limited industrial capacity of the region, it is unnecessary to complete a local limits review as most of the industries are permitted due to categorical status or for non-priority pollutants. The City requests that this mandatory requirement be removed from the permit.

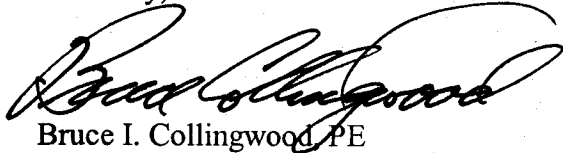
12. Industrial Pretreatment Program: As stated above the City maintains an IPP in conformance with the existing permit. We are currently in the process of updating to meet the Streamlining Rule. The deadline contained in the permit is unnecessary. Additionally the reporting dates for the annual IPP have changed and are inconsistent with the dates contained in the permit.
13. State Certification: It appears that State certification has not been made yet. The City is concerned that requirements may change again before final issuance.
14. Page 4 of the Fact Sheet: The City does not currently have gravity thickeners at the WWTP.
15. Available Dilution: There appear to be some inconsistencies in the methodology used to calculate the dilution ratios for the proposed permit limits. The basis of comparison is the average daily design flow of the facility (17 MGD), which is substantially higher than the actual effluent flow (less than 7 MGD) during 7Q10 periods.
16. Non-Conventional Pollutants: Nitrogen appears to be the next target for WWTP's; however it appears that Pittsfield is the recipient of the first such requirement. Many recently issued NPDES permits to other treatment facilities do not contain any nitrogen requirements, even though they may have substantially better existing facilities to meet this requirement. The inclusion of additional reporting and study to Pittsfield seems arbitrary and unnecessary based upon the analysis provided.
17. Phosphorus: We restate that the basis for the phosphorus limit is not thorough and does not contain convincing evidence of the need to lower the limit. Without the benefit of a TMDL, it is not appropriate to make a single entity responsible for the health of the River. Also it does not appear that the stringent limit is necessary to other facilities located on the Housatonic.
18. Copper: The Fact Sheet provides analysis that shows the existing copper limit is overly stringent. Irrespective of this fact, due to anti-backsliding requirements it is stated this limit can not be modified to the correct and more appropriate value. Additionally, the hardness value applied is different than the one used for zinc. We feel this is inappropriate.

In closing, the City strongly believes the new limits and requirements contained within the draft permit are unfair, without basis, and in many cases infeasible. Moreover, there appears to be no rationale suggesting such requirements will provide any significant improvement in the water quality of the Housatonic River, especially when measured against the negative environmental and financial impacts that will result from the construction and operation of further treatment facilities aimed at achieving compliance with the draft permit limits. The extensive capital, staffing, man-power, electricity, fuel, chemicals, and sludge produced to make fractional improvement in effluent quality are not justified. It is our sincere desire that the EPA will work cooperatively with the City to

develop a fair and balanced permit that will not result in enormous rate impacts to the users of the wastewater system, while continuing to meet the goals of the Clean Water Act.

We appreciate your consideration regarding this matter, and please call me if you should have any questions. We look forward to meeting with you.

Sincerely,



Bruce I. Collingwood, PE
Commissioner

cc. James M. Ruberto, Mayor
John W. Olver, U.S. Representative
Richard Dohoney, City Attorney
Thomas Landry, WWTP Superintendent
Benjamin Downing, State Senator
Christopher Speranzo, State Representative
William Pignatelli, State Representative
Denis Guyer, State Representative
Al Wells, Sea Consultants, Inc.

EXHIBIT 4

RESPONSE TO PUBLIC COMMENTS

From December 28, 2007 to February 10, 2008, the United States Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) solicited public comments on a draft National Pollutant Discharge Elimination System (NPDES) Permit, developed pursuant to an application submitted by the City of Pittsfield, Massachusetts for reissuance of its permit to discharge treated wastewater to the designated receiving water, the Housatonic River.

Following a review of the comments received, EPA has made a final decision to issue the permit authorizing this discharge. In accordance with the provisions of 40 CFR § 124.17, this document briefly describes and responds to the comments received on the draft permit, and describes any provisions of the draft permit which have been changed as well as the reasoning supporting those changes. Any clarifications that EPA considers necessary are also included in this document. A copy of the final permit may be obtained by calling or writing Meridith Timony, United States Environmental Protection Agency, One Congress Street, Suite 1100 (CMP), Boston, Massachusetts 02114-2023; Telephone: (617) 918-1533. Copies of the final permit and the response to comments may also be obtained from the EPA Region I website at <http://www.epa.gov/region1/npdes/index.html>.

(Note: the numbering used below does not reflect any particular numbering in the commenters' letters, but rather incorporates the comments into the numbering system used in the overall response to comments in such a way that each issue raised within the comments is addressed in a more effective manner)

A. Comments submitted by Jane Winn, Berkshire Environmental Action Team (BEAT), dated February 4, 2008.

Comment 1.

Please, do not change the limit for the maximum daily flow that may be discharged from the Pittsfield facility. The existing permit has a limit for the maximum daily flow that can be discharged. The draft permit does not have this limitation and only requires the permittee to report the maximum daily volume the plant processes in a given month.

BEAT believes that eliminating the limit for the maximum daily flow would be both backsliding and degrading of the existing permit conditions.

Response 1.

As described in the fact sheet, the maximum daily flow limit in the permit that was issued in 2000 was removed because it is not required by federal regulations and has not been made a condition of State certification. Maximum daily flow limits are not typically included in NPDES permits issued to publicly owned treatment works (POTWs) by EPA Region I.

Federal regulations do require that effluent limitations for POTWs be calculated based on the design flow of the facility (40 CFR § 122.45(b)). The annual average design flow was used as the basis for the flow limit in the draft permit and was also used, where required, in the

calculation of other effluent limitations. Again, the annual average design flow is the design flow typically used for calculating the limitations and conditions in POTW discharge permits, and was the design flow used for calculating the limits in the permit that was issued in 2000.

Maximum daily flow data provides regulators and treatment plant operators with information that can be used for gauging the extent of flows resulting from excessive infiltration and inflow (I/I), which is why the draft permit requires the permittee to report the maximum daily flow in addition to reporting the monthly average and annual average flows.

EPA does not believe that antibacksliding requirements prevent the removal of the maximum daily flow limit. As described previously, the limit is not required by federal or State regulations and is not required by the State as a condition for certification. The removal of this limit has not affected any other limitation or condition in the draft permit, which are based on the facility's annual average design flow, consistent with the permit which was issued in 2000. It should be noted that any flows that do exceed the maximum daily limit in the permit issued in 2000 that lead to a deterioration of the quality of the effluent will be reflected in violations of other effluent limits or conditions. In addition, the new inflow/infiltration requirements in the final permit will require the permittee and co-permittees to proactively manage extraneous flows.

The State of Massachusetts' antidegradation policy, found at 314 CMR § 4.04, requires all existing uses and the level of water quality necessary to protect the existing uses of a given waterbody (i.e., the Housatonic River) be maintained and protected. No lowering of the quality of the receiving water is expected to occur as a result of this permit action. Therefore, the draft permit conforms to the antidegradation provisions found at 314 CMR § 4.04.

For the reasons stated above, there has been no change in the final permit from the draft with respect to the flow limitations and conditions.

Comment 2.

Daily flow maximums are essential pieces of information. A facility is usually designed to have a comfortable flow (the monthly average) where the facility can handle the flow quite easily and without strain. There is often a maximum capacity flow-the largest flow that can physically be pumped through the plant. At maximum capacity flow, the amount of treatment may be compromised since process and holding times would need to be reduced.

High daily maximums can indicate that a system has lots of infiltration and inflow (I&I) problems, and the maximum flow rates can give an indication of the extent of this I&I problem. The data on the discharge that is provided shows there are often daily maximum flows of 30 MGD. This is more than double the monthly averages provided in the fact sheet data. More than double suggests there is extraneous, non-wastewater, flows entering the systems.

BEAT is aware that the City is trying to deal with the I&I issue, but we also believe that for an outside organization to be able to get an indication of how these efforts are proceeding,

having a maximum daily limit, in addition to daily reporting is important. It would be helpful if the City and State would also set substantive benchmarks and timelines associated with the reduction of I&I.

Response 2.

The day-to-day flow through a wastewater treatment facility can be highly variable at times. Flows resulting from wet weather events (such as precipitation and/or snowmelt) can cause temporary increases in the volume of wastewater entering the collection system and subsequently, the wastewater treatment plant. Facility planners account for these temporary increases in flow by designing facilities to have a maximum peak design flow capacity.

All wastewater entering the POTW, including all wet weather flows, must receive full secondary treatment and achieve effluent limitations. Bypasses of any portion of the secondary treatment process are strictly prohibited by federal regulations unless in accordance with one of the exceptions found at 40 CFR § 122.41 (m)(4)(i) (also see Part II Standard Conditions, Section B.4.d. of the final permit). Further, permittees are required to notify EPA of any anticipated or unanticipated bypass event (see Part II Standard Conditions, Sections B.4.c. and B.4.D.1.e. of the final permit).

Contrary to the above comment, the data provided in the fact sheet, which was taken directly from discharge monitoring reports submitted by the permittee from 2005-2007, show that daily maximum flows exceeded 30 million gallons per day (MGD) on only two occasions (January 2006 - 30.1 MGD and April 2007 - 30.3 MGD). EPA is not aware of any bypasses which occurred during these months.

EPA is in full agreement with the argument regarding the value of maximum daily flow data, which is why the draft permit includes a maximum daily flow reporting requirement.

With regards to the issues raised by the commenter pertaining to infiltration and inflow (I/I), the permittee and co-permittees are each required by Section E.3. of Part I of the final permit to submit an Infiltration and Inflow Control Plan to both EPA and MassDEP within six months of the effective date of the final permit which describes their program for controlling I/I to the wastewater collection system, including the identification and removal of sources of I/I and the level of funding required to support such programs. Additionally, the permittee and co-permittees are each required to submit an annual I/I summary report to EPA and MassDEP describing all inspections, maintenance, and corrective actions taken to mitigate I/I to the collection system for the reporting year and must identify any areas targeted for I/I-related investigations in the coming year. The annual summary report must also include a calculation of the annual average I/I and the maximum monthly I/I for the reporting year and provide a report describing any I/I-related corrective actions taken during the reporting period as a result of any unauthorized discharges reported pursuant to 314 CMR § 3.19(20) and the Unauthorized Discharges section of the final permit (Part I.D.).

All reports prepared in accordance with the terms of this permit are available for public inspection at the EPA Region I Office as well as at the MassDEP Western Regional Office at the following addresses:

Environmental Protection Agency
One Congress Street, Suite 1100
Boston, MA 02114

Massachusetts Department of Environmental Protection
Western Regional Office – Bureau of Resource Protection
436 Dwight Street
Springfield, MA 01103

As explained in the response to Comment # A.1., the reporting of daily flows through wastewater treatment plants is not required by federal or State regulations, and the flow limitation in the final permit remains unchanged from the draft.

Comment 3.

BEAT would like to see a pH limitation not to vary more than 0.5 SU from background levels in the receiving water.

Response 3.

The pH limitations in the draft permit are based upon the Massachusetts Water Quality Standards for Class B Waters, which require the pH to be within the range of 6.5-8.3 Standard Units (SU) and not more than 0.5 Standard Units outside of the natural background range (314 CMR § 4.05 (3)(b)(3)). For clarification, the language in Part I.A.1.c. of the final permit has been modified to reflect the Class B Water Quality Standards to read as *“the pH of the effluent shall not be less than 6.5 nor greater than 8.3 Standard Units (SU), and not more than 0.5 SU outside of the natural background range, at any time. There shall be no change from natural background conditions that would impair any use assigned to this class”*.

Comment 4.

The new 0.1 mg/l total phosphorus limit is a welcomed strengthening of the permit. This should be a great start to dealing with the nutrient loading issues in this river. We applaud the new limit and understand that the facility will need major new processes put in place and it appears the time line given for implementation is fairly reasonable.

Response 4.

EPA acknowledges the comment.

Comment 5.

The “chlorophyll A” concentrations recorded downstream of the plant, especially as compared to upstream of the plant’s discharge, clearly indicates the need to reduce the phosphorus levels. The 0.1 mg/l concentration may not even be adequate, but at least is a good start. The US Environmental Protection Agency’s (EPA) newer ecoregional recommendations are calling for quite a low phosphorus concentration in free flowing rivers

and even lower in rivers entering impoundments, as compared to the old standby the "Gold" Book which has 0.1 as its recommendation.

Response 5.

EPA acknowledges the comment.

Comment 6.

BEAT approves of the extended phosphorus "season", which appears to more closely represent the growing season of the aquatic biota.

Response 6.

EPA acknowledges the comment.

Comment 7.

BEAT regrets that the draft permit does not limit the total pounds per day of phosphorus that can be discharged by the facility. BEAT has heard that data exists indicating that the chlorophyll a, and thus plant growth, in Woods Pond is significantly higher than in upstream areas.

Response 7.

The recommended water quality criteria for phosphorus are expressed in concentration units (see Quality Criteria for Water, USEPA 1986 [EPA 440/5-86-001], and Ambient Water Quality Criteria Recommendations: Information Supporting the Development of State and Tribal Nutrient Criteria, Rivers and Streams in Ecoregion XIV, USEPA 2000 [EPA 822-B-00-022]). Therefore, the limits for phosphorus in the draft permit are expressed in terms of concentration, satisfying the requirements set forth at 40 CFR §122.45(f)(1)(ii), which states that "all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass except when applicable standards and limitations are expressed in terms of other units of measurement".

Comment 8.

Why was a different upstream hardness value used for zinc (137 mg/l) than was used for copper (90 mg/l)?

Response 8.

A hardness value of 90 mg/l referred to in the above comment was used to calculate the water quality criteria and effluent limitations for copper and lead contained in the permit that was issued in 2000.

As described in the fact sheet, a hardness value of 137 mg/l was used to calculate the water quality criteria for zinc and lead in the draft permit. This value was determined by flow

averaging the hardness in the Housatonic River upstream of the discharge, as measured in samples of the receiving water collected upstream from the discharge for use as dilution water in the whole effluent toxicity (WET) tests conducted in June 2005, September 2005, June 2006, and September 2006. EPA believes that this value is more representative of recent critical low flow conditions in the river.

The water quality criteria for copper and subsequent copper-related analyses presented in the fact sheet are based upon the recently adopted site-specific copper criteria for the Housatonic River that were included in the December 2006 revisions to the Massachusetts Water Quality Standards (314 CMR § 4.05(5)(e) Table 28; Also see the response to comment # B.18 regarding the derivation of the copper limits in the final permit).

Comment 9.

BEAT is pleased that the copper limit is being maintained. We appreciate that, despite an EPA approved site specific acute and chronic copper adjustment, there has been a decision not to backslide. Thank you. Copper can be acutely toxic, so being more conservative than a site-specific analysis shows is necessary is still prudent.

Response 9.

The copper limitations in the final permit have been modified relative to those in the draft permit. Please see the response to comment # B.18 regarding the copper limitation in the final permit.

Comment 10.

BEAT is concerned that the draft permit does not include a limit on lead because there is not enough data to determine if it is an issue. Wouldn't it be prudent to set a limit based on what should be achievable by similar plants. This could be reviewed and further refined in the future, but would set a baseline to work with.

Response 10.

The use of best professional judgment (BPJ) in setting an effluent limitation based on comparable performance by similar facilities is applicable only to facilities other than POTWs, where there are no technology-based effluent limitation guidelines for that particular class of dischargers. Technology-based effluent limitation guidelines have been established for POTWs and are based upon the secondary treatment regulations (i.e., the secondary treatment standards) found at 40 CFR Part 133 and include minimum levels of effluent quality for the discharge of BOD₅ (and CBOD₅), TSS, and pH (also see 40 CFR § 125.1, 2, and 3). The technology-based secondary treatment regulations do not identify the minimum level of effluent quality with regards to lead that can be achieved by POTWs.

Water quality-based effluent limitations for POTWs are not based upon the performance of facilities within a specific industry, as are technology-based effluent limits. Water quality-based effluent limitations are imposed on dischargers when it is determined that limitations more stringent than technology-based limitations are necessary to achieve or maintain the

water quality standards in the receiving water. Such determinations are made when EPA finds that there is reasonable potential for the discharge to cause or contribute to an instream excursion above a water quality criterion within a State water quality standard.

The Massachusetts Surface Water Quality Standards for the regulation and control of toxic constituents require that the water quality criteria established in the National Recommended Water Quality Criteria: 2002 (USEPA 2002 [EPA-822-R-02-047]), which was published by EPA pursuant to Section 304(a) of the Clean Water Act, be the allowable receiving water concentrations for the affected waters for any pollutant not otherwise listed in 314 CMR § 4.05(5)(e), unless MassDEP either establishes site-specific criteria or determines that naturally occurring background concentrations are higher (314 CMR § 4.05(5)(e)). In the absence of site-specific criteria, water quality criteria for lead were calculated using the following equations from the National Recommended Water Quality Criteria: 2002 (USEPA 2002 [EPA-822-R-02-047]):

1. Acute Criteria_(Dissolved) = $\exp\{m_a [\ln(h)] + b_a\} * CF$

Where:

m_a = Pollutant-specific coefficient

b_a = Pollutant-specific coefficient

\ln = Natural logarithm

h = Hardness of the receiving water

CF^1 = Pollutant-specific conversion factor to convert total recoverable metals to dissolved metals

2. Chronic Criteria_(Dissolved) = $\exp\{m_c [\ln(h)] + b_c\} * CF$

Where:

m_c = Pollutant-specific coefficient

b_c = Pollutant-specific coefficient

\ln = Natural logarithm

h = Hardness of the receiving water

CF = Pollutant-specific conversion factor to convert total recoverable metals to dissolved metals

Using an instream hardness value of 137 mg/l, acute and chronic water quality criteria for lead in the Housatonic River in the vicinity of the discharge were calculated as follows:

¹ Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criteria (USEPA 1996 [EPA-823-B96-007]) was used as the basis for the use of the criteria conversion factor (CF). National Guidance requires that permits limits for metals are to be expressed in terms of total recoverable metal and not dissolved metal. As such, conversion factors are used to develop total recoverable limits from dissolved criteria. The conversion factor reflects how the discharge of a particular metal partitions between the particulate and dissolved form after mixing with the receiving water. In the absence of site-specific data describing how a particular discharge partitions in the receiving water, a default assumption equivalent to the criteria conversion factor is used in accordance with the Metal Translator Guidance.

(Note: for a detailed description of these equations and the process used to derive water quality criteria and effluent limitations for hardness-dependent metals, please refer to Section V.B.3.d.2. of the fact sheet):

Acute Water Quality Criteria

$$m_a = 1.273 \quad b_a = -1.460 \quad CF = 1.46203 - [\ln(h)(0.145712)] = 0.74513 \quad h = 137$$

$$\text{Acute Criteria}_{(\text{Dissolved})} = \exp\{1.273 [\ln(137)] + (-1.46203)\} * 0.74513 = 90.8 \mu\text{g/l}$$

Chronic Water Quality Criteria

$$m_c = 1.273 \quad b_c = -4.705 \quad CF = 1.46203 - [\ln(h)(0.145712)] = 0.74513 \quad h = 137$$

$$\text{Chronic Criteria}_{(\text{Dissolved})} = \exp\{1.273 [\ln(137) + (-4.705)]\} * 0.74513 = 3.54 \mu\text{g/l}$$

Dividing the calculated dissolved criteria by the conversion factor (CF) to determine the concentrations of total recoverable metal and then multiplying these criteria by the calculated dilution factor (dilution factor = 1.97) (see fact sheet for dilution factor calculation) yields the acute and chronic concentrations of total lead that may be present in the effluent without exceeding the criteria ($\text{Acute}_{(\text{Total Recoverable})} = 240 \mu\text{g/l}$; $\text{Chronic}_{(\text{Total Recoverable})} = 9.35 \mu\text{g/l}$). If effluent monitoring data shows that the quantity of the pollutant in the effluent is greater than the allowable concentration, then reasonable potential exists for the discharge to cause or contribute to an excursion above a water quality criterion, and effluent limits would be developed and incorporated into the permit.

The permit issued in 2000 contained a quarterly lead monitoring requirement in order to determine if the results of analyses using a more sensitive method than the one used in previous lead analyses would reveal concentrations of lead in the discharge that would cause or contribute to an exceedance of water quality criteria. This permit (issued in 2000) specifically states that the "minimum detection level for lead is defined as 1.0 $\mu\text{g/l}$ using the Furnace Atomic Absorption analytical method" and that "sample results of 1.0 $\mu\text{g/l}$ or less shall be reported as zero on the discharge monitoring reports". The results of lead analyses performed in conjunction with whole effluent toxicity (WET) tests from March 2005 - March 2007 were consistently reported as being less than 10 $\mu\text{g/l}$ (see Appendix D of the fact sheet). This data is based on lead analyses conducted using the Inductively Coupled Plasma (ICP) analytical method (EPA Method 200.7), which has a minimum detection level of 10 $\mu\text{g/l}$, rather than the Flame Atomic Absorption (FAA) analytical method, which has a minimum detection level of 1.0 $\mu\text{g/l}$. Had the FAA method been used, lead concentrations in the effluent that were greater than or equal to 1.0 $\mu\text{g/l}$ would be detected and should have been reported. While the data do not indicate reasonable potential for the discharge to cause or contribute to an excursion above the acute criteria, the potential for the discharge to cause or contribute to an exceedance of the chronic criteria could not be completely ruled out given that the minimum detection level for the test used in the lead analyses from 2005-2007 (10 $\mu\text{g/l}$) is slightly greater than the calculated chronic limit (9.35 $\mu\text{g/l}$). It is worth mentioning that since the concentration of lead that may be discharged without exceeding the chronic criteria is 9.35 $\mu\text{g/l}$, any reported values (had the FAA analytical method been used) less than or equal to 9.35 $\mu\text{g/l}$ would not necessarily represent reasonable potential. However,

due the uncertainty as to the actual concentration of lead discharged from the facility and given the relatively low number of lead analyses performed, the draft permit includes a monthly monitoring requirement for lead in order to more precisely characterize the effluent and to ensure that there is no reasonable potential for water quality criteria to be exceeded in the receiving water as a result of the discharge.

In order to reflect the sensitivity of the most current analytical methods which have been approved by EPA, Footnote # 13 of the draft and final permits explicitly states that samples are to 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, and that any sample results of 0.5 µg/l or less are to be reported as zero on the discharge monitoring report submitted to EPA and MassDEP each month.

Comment 11.

In that much of Pittsfield's groundwater is contaminated with polychlorinated biphenyls (PCBs), especially in the section of the City where the industrial groundwater users are located, BEAT believes that the City's Wastewater Treatment Plant should be required to monitor at least monthly with a 24-hour composite sample for PCBs.

Response 11.

Because PCBs have a high affinity for solids, it would be expected that if there are quantifiable concentrations of PCBs in the wastewater flowing through the Pittsfield WWTP, their presence would be detected in the sludge generated during the treatment process. The results of PCB analyses conducted from 1995-2005 on sludge samples from the facility that were submitted in accordance with the annual priority pollutant scan requirements in the previous two NPDES permits issued to the facility were all below detection level (using EPA Method 8082). The results of additional PCB analyses conducted on samples of the effluent in 2005 and submitted by the permittee as a supplement to their NPDES permit application were also all below detection level (using EPA Method 608). The data was reviewed by the EPA Region I Sludge Program Coordinator, who determined that the sample results do not indicate a need for PCB monitoring in addition to the required annual priority pollutant scan required in the draft permit. Therefore, the sludge monitoring requirements in the final permit have remained unchanged from the draft. The final permit may be modified in the future to include additional PCB monitoring requirements should EPA receive information suggesting that PCBs have become an issue at the facility.

B. Comments submitted by Bruce I. Collingwood, PE, Commissioner, City of Pittsfield, dated February 5, 2008.

Opening Comment

On December 28, 2007, the City of Pittsfield received the draft National Pollutant Discharge Elimination System (NPDES) Permit for the City's Wastewater Treatment Plant (WWTP). The City takes great pride in accepting its role in protecting the environment, and the City's WWTP consistently produces high quality wastewater effluent. Based on our review of the proposed NPDES permit, the City strongly believes the new requirements contained in the

permit are not fair and not balanced. The changes are one-sided and do not consider the affordability to the City's residents as compared to the limited perceived gains in environmental protection. The City requests the Environmental Protection Agency (EPA) work cooperatively with the City to develop a fair and balanced Permit that will not result in enormous rate impacts to the users of the wastewater system, while continuing to meet the goals of the Clean Water Act.

Overall this draft permit represents a complete revision from the prior permit and an enormous financial burden to the City. The document was issued without communication with City officials as to the dramatic changes that would be presented in the draft permit. The City does not accept the proposed changes to the existing permit. They are neither fair nor environmentally beneficial. The following narrative represents general comments regarding the draft permit.

Response to Opening Comment:

The effluent data submitted by the City confirms that it has done a commendable job in maintaining compliance with the effluent limitations and conditions in the permit that was issued in 2000. EPA must, however, establish more stringent effluent limitations and conditions where necessary to achieve water quality standards in the receiving water. Water quality-based limits must be based strictly on achieving water quality standards and cannot be established based on cost or rate impacts. However, the economic impacts on the discharger can be considered when establishing compliance schedules for achieving water quality-based effluent limitations.

Where a community believes required controls would result in widespread social and economic impact, it could request the state to prepare a use attainability analysis (UAA) to remove the designated use in the receiving water associated with the more stringent limits (see 40 CFR Part 131.10(g)).

Comment 1.

Additional Permittees:

The document lists four connected Towns as co-permittees to the draft permit. The City is responsible for the administration, finance, operation and maintenance of facilities located within the City limits. The City allows the four connected communities to use the treatment plant for an economic and environmental benefit and manages them as customers. The City has no responsibility or control over the individual community's infrastructure. The City can not take on the responsibility of the reporting requirements and management of their collection systems.

Response 1.

By definition, a publicly owned treatment works (POTW) includes any devices and systems used in the storage, treatment, or recycling and reclamation of municipal sewage or industrial waste of a liquid nature. It also includes any sewers, pipes, and other conveyances only if they convey wastewater to a POTW treatment plant (40 CFR § 403.3). EPA recognizes that portions of the

wastewater collection system transporting wastewater to a POTW from surrounding communities may not fall under the jurisdiction of the particular municipality that owns the POTW. For this reason, the towns that contribute flow to the City's Wastewater Treatment Plant have been named as co-permittees. Inclusion of the Towns of Dalton, Lenox, Hinsdale, and Lanesborough as co-permittees does not impose any responsibility upon the City of Pittsfield for the implementation of any of the terms and conditions required by the draft permit that extend beyond the scope of the City's authority. As described in section VII. of the fact sheet, each of the co-permittees is responsible for the activities required by Part I.D. and Part I.E. of the draft permit regarding the operation and maintenance of the collection system owned and operated by each town. Specifically, Part I.D. of the draft permit, Unauthorized Discharges, requires each of the co-permittees to notify EPA and MassDEP of any discharges of wastewater from point sources (including sanitary sewer overflows (SSOs)) from any portion of the wastewater collection system the co-permittee owns and operates which are not authorized by the permit in accordance with Part II., Section D.1.e.1. (General Conditions – 24-hour reporting), of the permit. Part I.E. of the draft permit, Operation and Maintenance of the Sewer System, places responsibility for the operation and maintenance of the wastewater collection system on the owners and operators of the system (i.e., each of the municipalities that have been designated as co-permittees).

In order to provide further clarification of the responsibilities imposed on the co-permittees by the final permit, the following statement has been added to the cover page (of the final permit) which explains that each of the co-permittees are responsible for the requirements of Part I. D. and E. of the permit with respect to the portion of the wastewater collection system that they own and operate, and that the City of Pittsfield is not responsible for the activities required of the co-permittees:

The Towns of Dalton, Lenox, Hinsdale, and Lanesborough are included as co-permittees for Part I.D. Unauthorized Discharges, and Part I.E. Operation and Maintenance of the Sewer System, which include conditions regarding the operation and maintenance of the wastewater collection systems owned and operated by the Towns. Each of the co-permittees is responsible for the specific activities required in these sections, including the reporting on such activities.

Comment 2.

Effluent Limitations: The permit makes several significant changes to effluent permit limits. The indicator organism for pathogenic bacteria has been modified, the phosphorus limit was reduced by more than 90%, and a new limit for aluminum was added:

Comment 2.a.1. Phosphorus

This limit represents the single most significant change in the NPDES permit. The current limit is seasonal with an April average daily limit of 2.0 mg/l and a May through August limit of 1.0 mg/l. The proposed limit is 0.1 mg/l from April to October, and 1.0 mg/l from November through March each year. The City is extremely concerned by the imposition of this limit for several reasons.

The City discharges high quality effluent for a number years contributing to the overall improvement in the health of the Housatonic River, being the first major discharger to treat