

**RESPONSE TO PUBLIC COMMENTS**

City of Chicopee Department of Public Works, Chicopee, Massachusetts

On November 3, 2004, the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MA DEP) released for public notice and comment, a draft National Pollutant Discharge Elimination System (NPDES) permit developed pursuant to an application from the City of Chicopee Department of Public Works, for the issuance of a permit to discharge from their Water Pollution Control Facility in Chicopee, Massachusetts to the Connecticut River, Chicopee River, Cooley Brook, and Willimansett Brook. The public comment period for this draft permit expired on December 2, 2004. Comments were received from the following:

Commonwealth of Massachusetts Historical Commission, dated November 10, 2004  
City of Chicopee Department of Public Works, dated November 23, 2004  
Commonwealth of Massachusetts Riverways Programs, dated November 30, 2004

After a review of the comments received, EPA has made a final decision to issue the permit authorizing these discharges. The following response to comments describes the changes that have been made to the permit from the draft and briefly describes and responds to the comments on the draft permit. Clarifications which EPA considers necessary are also included below. A copy of the final permit may be obtained by writing or calling Jonathan Britt, EPA Massachusetts NPDES Permits Program (CIP), 1 Congress Street, Suite 1100, Boston, MA 02114-2023; telephone: (617) 918-1563.

**Commonwealth of Massachusetts Historical Commission**

*Staff of the Massachusetts Historical Commission have reviewed the public notice regarding the draft NPDES permit for the proposed project referenced above and have the following comments.*

**Comment 1**

*Review of MHC's Inventory of the Historic and Archaeological Assets of the Commonwealth indicates that unmarked Native American burials have been recovered from the grounds of the water treatment plant (MHC site #19-HD-196) and that more may be expected in this area. The proximity of the plant to these burials and the favorable environmental conditions, including areas of well-drained soils and relatively level terrain and proximity to the Connecticut River, are strong indications that this area is likely to contain additional archaeological resources.*

*Page 3 of the Fact Sheet for this project states that proposed facility upgrades include construction of a dechlorination facility for secondary bypass and increased effluent pumping capacity in 2005. At present the MHC is unable to determine what effect, if any, the proposed facility upgrades will have on unmarked burials and archaeological sites without additional information. The MHC requests the opportunity to review current original photos of the*

*location for the proposed facility upgrades, and plans showing existing and proposed conditions within the project area when these become available.*

*These comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act of 1966 as amended (36 CFR 800), Massachusetts General Laws, Chapter 9, Sections 26-27C as amended by Chapter 254 of the Acts of 1988 (950 CMR 71). If you have any questions, please feel free to contact Margo Muhl Davis, Archaeologist/Preservation Planner, at this office.*

#### Response 1

EPA agrees. EPA's Section 106 coordinator contacted the permittee and has made them aware of their responsibility to comply with Section 106 of the National Historic Preservation Act of 1966 as amended. Documentation was submitted to the Massachusetts Historical Commission (MHC) and other interested parties, including EPA, on December 3, 2004 by Tighe & Bond, on behalf of the permittee.

MHC reviewed the project description and plans. MHC responded to the permittee with a letter dated December 16, 2004. After review of their files and the information submitted, "MHC has determined that the proposed project is unlikely to affect significant historic or archaeological resources or unmarked burials. No further MHC review is required for this project in compliance with Section 106 of the National Historic Preservation Act of 1966 as amended (36 CFR 800) and Massachusetts General Laws, Chapter 9, Sections 26-27C as amended by Chapter 254 of the Acts of 1988 (950 CMR 71)." No changes have been made to the permit.

#### **City of Chicopee Department of Public Works**

*We have reviewed the Draft NPDES Permit No. MA0101508 and have the following comments:*

#### Comment 1

*Permit Page 2, Footnote \*\* - Requirement is that samples "shall be taken after the last point of treatment and prior to the discharge to the Connecticut River". This language is in conflict with EPA-approved method 5210B for BOD which states "If possible, avoid samples containing residual chlorine by sampling ahead of chlorination processes." The POTW's current composite sampling site is just prior to the chlorine discharge pipe, and although some dechlorination is still required, the site better accommodates that methodology.*

#### Response 1

EPA agrees that the current sampling location is adequate for monitoring the secondary effluent. The language in Footnote \*\* has been adjusted accordingly.

#### Comment 2

*Page 3, Footnote 4 - The permit defines a composite sample as "at least twenty-four (24) grab*

*samples taken during one working day, taken at equal time intervals.”*

*This condition appears to eliminate the option for flow proportional samples. Currently, the POTW performs flow proportional sampling of influent, primary and secondary effluents, which more accurately represents pollutant loading to the process and receiving stream than time-proportional composite sampling. Either the permit language should be revised, or the POTW must revert to time-proportional sampling.*

### Response 2

EPA agrees that the language in Footnote 4 of the draft permit could be interpreted as precluding flow proportional samples. That was not our intent, as Part II. Part II.E.1. of the General Requirements clearly require that composite samples be flow proportioned. We have changed the definition of composite sample in Footnote 4 to more clearly require flow proportioning. Footnote 4 now defines a composite sample as “a sample consisting of a minimum of twenty four samples collected at equal intervals during a 24-hour period and combined proportional to flow, or a sample continuously collected proportionally to flow over that same time period.”

### Comment 3

*Page 3, Footnote 6 - The permit states “The minimum level (ML) for total residual chlorine is defined as 20 ug/L” using EPA approved method 330.5.*

*As described in the attached text, the ML under this method is 200 ug/L. Also, the permit language is unclear whether the POTW is required to maintain a minimum of the ML as the lower limit for chlorine residual.*

### Response 3

The language contained in Footnote 6 of the draft permit is more applicable to facilities that have a more restrictive water quality based chlorine limit than the 1.0 mg/l maximum daily chlorine limit listed in the draft permit. The language in Footnote 6 has been adjusted accordingly to allow chlorine samples to be tested using any analytical TRC method found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136.

### Comment 4

*Page 8, C.3 - The permit states that the “permittee shall develop and implement a plan to control infiltration and inflow (I/I) to the separate sewer system.”*

*The City is currently being required by the EPA to implement a very extensive CSO abatement program that is estimated to cost \$100 million to \$150 million to mitigate flows from approximately 670,000 linear feet (127 miles) of combined sewers. Until the City completes the CSO program, any I/I reductions in the separate sewer system will be quite insignificant. Since it is impractical to measure I/I from just the small portions of the sewerage system that are*

*separate, we request that this requirement be postponed until a majority of the CSP program has been completed.*

Response 4

EPA has reviewed the language listed in Section C *Operation and Maintenance of the Sewer System*. EPA agrees that initially, I/I in the separate sewer system will be quite insignificant compared to the amount of I/I transported by combined sewers. However, EPA believes that the City should begin to investigate the source(s) of infiltration and inflow (I/I) into its separate collection system and submit an annual report describing progress made during the previous year. As the combined system is separated, the I/I into separate sewers will be a larger percentage of wastewater flows. Also, as sewer separation proceeds, the permittee will also need to ensure that illicit connections are removed from storm drains and that non-wastewater discharges are removed from separated sewers, which should be an important component of the I/I program. No change has been made to the permit.

Comment 5

*Page 11, D.2.e - The permit states “The permittee shall quantify and record all discharges from the combined sewer outfalls (NMC #9). Quantification may be through direct measurement or estimation.”*

*The City has numerous outfalls, an amount that is usually associated with Cities of much larger size and population. In the past, with 22 outfalls and 34 regulators the City has only performed block test observations for these locations. The estimated cost to quantify combined sewer discharges by direct measurement (installing and maintaining gauges at all locations) is estimated to be in excess of \$300,000 per year. Since this is considered to be very significant annual cost for a City as small as Chicopee, the City proposes to quantify CSO discharges by estimation using hourly rainfall data from a local National Weather Service (NWS) station (Barnes Air Reserve Base in Westfield which is approximately 5 miles west from the City’s Water Pollution Control Facility). On a quarterly basis, rainfall data from the previous 3 months will be input into the SWMM model that was developed for the City’s Long Term Control Plan. The model will provide an estimate [of] the discharge volume (in gallons) and duration (in minutes) and the results will be verified with block test observations for each event.*

Response 5

The approach outlined by the City sounds reasonable. The permit requires that the proposed monitoring plan be submitted within 3 months of the effective date of the permit. The permittee should outline the details of its proposal and submit it in accordance with the permit requirements. No change has been made to the permit.

Comment 6

*Page 12, D.2.f. - The permit states “ The permittee shall install and maintain identification*

*signs for all combined sewer outfall structures ... at or near the combined sewer outfall structure and easily readable by the public.” The City repairs or replaces the signs on an annual basis due to vandalism.*

Response 6

The information submitted by the City of Chicopee is now part of the permit record.

Comment 7

*Page 12, D.3.b. - The permit states “Precipitation during the previous year for each day, including total rainfall (expressed in inches), peak intensity (highest 15 minute sample multiplied by four to convert to inches per hour), and average intensity (total rainfall for the storm event divided by the duration of the storm, expressed in inches per hour).”*

*The shortest time period for locally available rain data (Barnes Air Reserve in Westfield) is one hour, therefore peak intensity for shorter intervals (e.g. 15 minutes) cannot be derived. As previously described, the hourly data would be used in the SWMM model to estimate CSO discharge volumes and durations.*

Response 7

EPA agrees. Because the 15 minute peak intensity data is not available in your immediate area, hourly rainfall may be used to estimate CSO discharge volumes and durations. The appropriate change has been made to the permit.

Comment 8

*Page 13, D.3.d.iv. - The permit states “Quarterly postings on the permittee’s website and links to other relevant websites which would give the locations of the CSOs.”*

*Although general information can initially be posted on the City’s website, the WPCF / DPW do not have ready access to the City’s website for updates and quarterly postings. It is requested that the permit be revised to delete this requirement.*

*Page 13, D.3.d.vi. - The permit states “Notice to local health agents and other downstream public officials, including drinking water treatment plants, within 24 hours of activation of CSOs.”*

*The City proposes to send notice to the health officials to the downstream cities of Springfield, West Springfield and Holyoke within 24 hours of any CSO activation.*

Response 8

As part of the annual CSO report, EPA requires a public notification plan. Section D.3. of the permit provides a list of measures (items i through vi) that should be evaluated as part of a public notification effort. In the annual CSO plan the permittee should indicate the Department of Public Works’s inability to readily access the City’s website and their efforts to notify

downstream public officials. The information submitted by the permittee is now part of the permit record. No change has been made to the permit.

Comment 9

*Page 15, F.8. - The permit states that the “permittee must be assured that any third party contractor is in compliance with appropriate regulatory requirements.”*

*Since the method of compliance has not been established, we propose to require the City’s contractor to provide documentation annually regarding its processing and disposal procedures. It is requested that the permit language be revised accordingly.*

Response 9

EPA has reviewed the language in Section F.8. of the draft permit and has adjusted the language to read “The permittee must provide information to any third party contractor to assure compliance with the 503 regulations.” Therefore, providing a third party with a copy of EPA’s Sludge Guidance Document and a copy of the regulations found in 40 CFR §503 may satisfy this permit requirement.

**Commonwealth of Massachusetts Riverways Programs**

*Staff at the Riverways Programs, MA Department of Fish and Game, has reviewed the draft NPDES permit for the Chicopee Water Pollution Control Facility discharging wastewater, combined sewer overflows and stormwater to the Connecticut and Chicopee Rivers, and Cooley and Willimansett Brooks. We appreciate the opportunity to review and comment on the draft NPDES permit. Protecting the health of the state’s rivers and estuaries is the driving force behind the Riverways Programs’ work. The potential for point source pollution discharges to negatively impact our waterways heightens the role of NPDES permits in resource protection efforts.*

Comment 1

*The Fact Sheet states there are 19 industrial users contributing to the Chicopee facility but the percentage contribution is not noted. Given the population provided and the average effluent flow, it appears the industrial component is approximately 50% of the flows treated at the facility. Is this the approximate ratio? Does the Facility accept septage?*

Response 1

According to the permittee’s Industrial Pretreatment Program (IPP) annual report, in 2003 the industrial flow to the POTW was 5% of the total flow treated at the facility. The City of Chicopee accepts septage from Chicopee residents only.

Comment 2

*The Fact Sheet notes the facility uses a 32 MGD capacity pump to discharge effluent to the receiving water during high river states when gravity flow is not possible. The facility is also capable of treating up to 40 MGD during wet weather events. Should a wet weather event occur when the river is running high, how is the 8 MGD excess over the effluent pumping capacity dealt with by the facility?*

Response 2

According to the permittee, the effluent pumps can handle 32 MGD and capacity has never been reached during high river conditions. If capacity is reached, the discharge rate from the four 6,000 gpm pumps at the Jones Ferry Pump Station would need to be reduced. Reduction can occur by throttling back all four pumps or shutting down one or two of them. With a reduction in flow capacity, the excess flow would discharge through CSO 007-I. The permittee is investigating whether to construct a storage or treatment facility adjacent to the Jones Ferry Pump Station so that flows that cannot make it through the treatment plant will be diverted to the CSO 007-I control facility and receive at least partial storage or treatment, depending on the storm condition.

Comment 3

*The Fact Sheet states removal of maximum daily limits for BOD and TSS are proposed in this draft permit as these limits are no longer required by MA DEP. There is no explanation or justification concerning this removal and the provisions of 40 CFR 122.44(1)(1) prohibiting backsliding on existing permit limits. While the facility has made improvements to its wet weather treatment capabilities, the changes are specifically wet weather focused and are not substantial additions or alterations in daily operations at the plant. The changes made lack pertinence to daily maximum BOD and TSS limits existing in the permit. Using the wet weather upgrades to justify a permit limit in effect regardless of flow and weather condition is disingenuous. By removing the daily maximum limits for TSS and BOD, the proposed permit will institute limitations that are less stringent than those in the existing permit violating the anti-backsliding provision of the Clean Water Act. This is not a minor issue given this reach of the Connecticut River is listed as not attaining water quality standards for suspended solids, priority organics and pathogens.*

Response 3

The secondary treatment regulations found in 40 CFR §133.102 establish monthly and weekly concentration limits of 30 mg/l and 45 mg/l, respectively. The daily maximum limit of 50 mg/l was included in the previous permit as a state certification requirement, under 401(d) of the CWA.

EPA and DEP believe that anti-backsliding is not violated under 40 CFR 122.44(l)(2)(i) because the removal of the limit is based on new information, that being that the state does not require the limit for certification. EPA and DEP also believe that the removal of the maximum daily limit does not violate the state's antidegradation policy because it is unlikely that maximum daily discharges of BOD and TSS could increase significantly without violating the average weekly limits, and that those increases would not degrade the water quality of the Connecticut River.

Lastly, the addition of mass limits into the draft permit will further ensure that the permittee adequately controls its loadings to the receiving water. No change has been made to the permit.

Comment 4

*The facility currently bypasses secondary treatment processes and disinfection during high flows. The Fact Sheet states BOD and TSS is calculated (estimated) mathematically during these events. The specifics concerning how the TSS and BOD loads are not provided. Does the calculation attempt to remove the influence of the bypassed effluent to determine the BOD and TSS of the 25 mgd passing through the complete treatment process? Since this is a blended effluent, the discharge should be able to meet permit limits since the rationale put forward in the justification of sewage blending is it does not allow permit holders to negate their permit requirements during blending.*

Response 4

The discussion in the fact sheet regarding BOD and TSS effluent limits and monitoring is not as clear as it should have been. The agency offers the following as clarification.

The permit does not authorize a CSO-related bypass of secondary treatment, but EPA has issued an Administrative Order (AO) Number 97-32 on June 6, 1997 authorizing such discharge as a mitigation measure to reduce the quantity of untreated CSO from the collection system. It is anticipated that as the combined sewer system is separated, the amount of flow bypassed will be reduced and finally eliminated.

Attachment 1 of the 1997 administrative order contains the sampling requirements for monitoring the bypassed flow and for calculating the blended effluent characteristics. EPA anticipates that the conditions of Administrative Order 97-32 shall be continued once the draft permit becomes final. No change has been made to the permit.

Comment 5

*The draft permit proposed to change the pH limits to allow lower pH than the range specified in the Massachusetts Water Quality Standards for Class B waters. Under 40 CFR 122.44 (d) (1)(i), as stated in the Fact Sheet, "Limitations must control all pollutants for pollutant parameters which the Director determines are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard." Discharging effluent with a pH below the minimum State Water Quality Standard for Class B waters would be contributing to an excursion. It is also unclear why this lowering of the pH is not backsliding based on the definitions and provisions of 40 CFR 122.44(l)(1). Section 401(d) does not appear to provide the necessary justification for allowing a pH range outside of State standards. Quite the contrary, it appears to require a federal permit or license to comply with State law, "...and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section." (401(d)). The challenges of meeting Class B pH standards, given the treatment process used at the plant and the quality of the influent, are not minor and not without our sympathy but there is another consideration, however. The receiving water hosts several listed species including two federally listed species and the health of the receiving water and the water quality needs of these species would need to take priority over the technical challenges of meeting Class B pH standards. The quality of the river may be an important factor in the viability of these threatened populations. Fisheries experts should be consulted to ascertain if this change in pH would be detrimental in any way to any of the listed species or their food sources.*

Response 5

Before establishing pH limits in the draft permit, EPA examined the backsliding provisions in 40 CFR §122.44 and in Section 402(o) of the Clean Water Act. A water quality limit may be made less stringent if the less stringent limit will not cause a violation of water quality standards or the state antidegradation policy.

Because of the available dilution in the Connecticut River, the Agency believes that the less stringent limit satisfies these requirements. No change was made to the draft permit.

Comment 6

*The frequency of WET/LC50 tests are proposed to be reduced to only two times each year. The DMR results for the WET tests listed in the Fact Sheet appendix do show compliance with permit limits through the last 16 tests but a more updated data show the facility failed to meet its WET permit limit in June of 2004. This problem in addition to the changes being undertaken at the plant and the sewage blending and CSO discharges ongoing at the facility suggests a reduction in the WET testing frequency is premature.*

Response 6

EPA agrees. The acute toxicity test frequency has been changed from two per year to four per year on page 2 of the draft permit, and Footnote 7 has been updated accordingly.