RESPONSE TO COMMENTS

NPDES PERMIT No. MA0103152
Town of Barre, Massachusetts

On August 17, 2005, the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) released for public notice and comment a draft National Pollutant Discharge Elimination System (NPDES) permit developed pursuant to an application from the Town of Barre, Massachusetts for the reissuance of its permit to discharge wastewater to the designated receiving water, the Ware River. The public comment period for this draft permit expired on September 17, 2005. Comments were received from Mr. David C. Formato, P.E., Project Engineer, Tata & Howard, Incorporated on behalf of the Town of Barre Board of Sewer Commissioners in a letter dated September 14, 2005.

After a review of the comments received, EPA has made a final decision to issue the permit authorizing this discharge. The following are the comments and EPA's response to those comments, including changes that have been made to the final permit from the draft as a result of the comments. The comment letters are part of the administrative record and are paraphrased herein. A copy of the final permit may be obtained by writing or by calling Mark Malone, EPA NPDES Permits Program (CMP), 1 Congress Street, Suite 1100, Boston, MA 02114-2023; telephone: (617) 918-1619.

Note that the draft permit incorrectly specified weekly pH monitoring instead of daily monitoring as in the current permit. The final permit corrects this.

Comments received from Mr. David C. Formato, P.E., Project Engineer; Tata & Howard, Inc.:

Comment 1

Part 1. D. 3. – <u>Infiltration/Inflow Control</u> of the permit requires the annual summary report be submitted by March 31. It is requested that the submittal date be changed to coincide with the effective date of the new permit to provide better consistency with the current I/I investigation and reporting cycles.

Response 1

The current annual summary report date in July is the anniversary of the effective date of the permit. The permit effective date and, consequently, the report submittal date will not always occur in the same month from permit to permit. In addition, this date occurs in the middle of the construction season. The March 31date in the draft permit reflects a more normal cycle of I/I related activities. I/I investigations usually occur in the spring during high groundwater and wet weather and correction work is performed before the onset of winter. The March 31 date provides ample time to develop the required annual summary report and, once established, will provide for a more consistent reporting cycle. Therefore, the March 31 reporting date remains in the permit.

Comment 2

The phosphorus limit based upon the "Gold Book" criteria is 2.9 mg/l. However, it appears that EPA used additional calculations based upon the Ambient Water Quality Criteria Recommendations to States and Tribes to justify a lower limit of 1 mg/l. The basis for the calculation is a guideline not officially adopted or implemented by the Massachusetts Department of Environmental Protection (MA DEP). Also, the Ware River is not on the MA DEP's 2002 published list of Category 5 waterways for nutrients such as phosphorus and there appears to be no immediate plans to complete a Total Maximum Daily Loading (TMDL) for nutrients. Until a TMDL study is completed, assigning a phosphorus limit that is more stringent than limit based upon the Gold Book criteria will result in increased capital and operating costs without the benefit of meeting any set environmental standards by the DEP.

Response 2

While the MA DEP has not yet adopted numerical criteria for phosphorus, 314 §405 (5)(c) Nutrients of the state water quality standards requires that nutrients "Shall not exceed the site-specific limits necessary to control accelerated or cultural eutrophication…" As stated in the Fact Sheet, EPA originally published recommended national total phosphorus criteria in the *Quality Criteria for Water 1986* (the "Gold Book") for the control of eutrophication. EPA later refined the criteria for individual ecoregions within the country. EPA cites these national recommended criteria as appropriate to interpret and meet the State narrative criteria. These criteria result in phosphorus limits of 2.9 mg/l ("Gold Book) or 0.7 mg/l (ecoregion), respectively.

The Massachusetts Year 2002 Integrated List of Waters lists this segment of the Ware River as a Category 2 Water, "Attaining some uses; other uses not assessed." The listed attained use is aquatic life, meaning that other uses were not assessed. Given the lack of an assessment for eutrophication, we looked at other sources of information. Data from the *Chicopee River Basin 1998 Water Quality Assessment Report* indicates instream phosphorus concentrations of 0.04 to 0.08 mg/l downstream of the treatment plant in the Ware River, which are greater than the recommended ecoregion criteria. As described in the Fact Sheet, we determined that the discharge of phosphorus from the facility had the reasonable potential to cause or contribute to a violation of the state's water quality standards and developed an appropriate limit.

Another concern regarding the discharge of phosphorus is its accumulation in downstream impoundments during the winter months. The phosphorus in these deposits can be released in the spring and summer as temperatures increase and be used in algal growth, resulting in eutrophication. A winter limit if 1.0 mg/l significantly decreases the potential for phosphorus deposition in the impoundments.

Therefore, the year-round phosphorus limit of 1.0 mg/l remains in the permit.

Comment 3

The Town has already established its budget for this year and did not account for weekly phosphorus testing. It requests that the monthly monitoring frequency remain until provisions for weekly sampling can be made at the next Town Meeting.

Response 3

We agree to the request. Because the existing data already justified the inclusion of a phosphorus limit, the additional information provided by the increased sampling is not necessary at this time. Footnote 7 in the final permit continues the monthly sampling frequency until completion of the facility modifications at which time weekly sampling will be required.

Comment 4

The Board requests a modification to the phosphorus limit and/or a 3 year upgrade implementation period from the start of the new permit in order to evaluate treatment options, prepare a design, secure financing and regulatory approvals, and construct the modifications, if necessary.

Response 4

We recognize the time involved to complete those milestones cited in the Town's letter and agree that three years for the implementation of year-round phosphorus is reasonable. Footnote 7 in the final permit reflects this implementation period.