

RESPONSE TO PUBLIC COMMENTS

From April 8, 2010 through May 7, 2010, the United States Environmental Protection Agency (“EPA”) and the New Hampshire Department of Environmental Services, Water Division (“NHDES-WD”), solicited public comments on the draft National Pollutant Discharge Elimination System (“NPDES”) permit developed pursuant to an application submitted by the Town of Charlestown, New Hampshire, for the reissuance of its permit to discharge treated wastewater from the Charlestown Wastewater Treatment Plant to the designated receiving water, the Connecticut 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 explains any changes to the final permit, including 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, 5 Post Office Square-Suite 100, Mail Code OEP06-1, Boston, Massachusetts 02109-3912; 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>.

A. Comments Received from Paul E. Stacey, Director, Bureau of Water Protection and Land Reuse, Planning and Standards Division, State of Connecticut Department of Environmental Protection, dated April 14, 2010.

Opening Comment:

The Connecticut Department of Environmental Protection (CTDEP) appreciates this opportunity to comment on the draft NPDES permit for the Charlestown Wastewater Treatment Plant (WWTP). The draft permit authorizes the WWTP to discharge directly to the Connecticut River located in New Hampshire, which subsequently drains to Long Island Sound (LIS). The CTDEP has an interest in discharges to waters that drain to Long Island Sound since hypoxic conditions, which occur annually in the summer, have been documented to result from excessive loadings to LIS. In response to this occurrence, Connecticut and New York jointly developed a Total Maximum Daily Load (TMDL) for nitrogen which was approved by the Federal Environmental Protection Agency (EPA) in April, 2001. In addition to a number of nitrogen reduction efforts, the TMDL specifies a 25% reduction in the estimated nitrogen load from states upstream of Connecticut (Massachusetts, Vermont, and New Hampshire).

The draft Charlestown WWTP discharge permit demonstrates initial efforts aimed at reducing the amount of nitrogen discharged to LIS from upstream states. It includes a Special Condition for the WWTP to maintain a nitrogen load of approximately 60 pounds/day based on a 2004 and 2005 annual average and requires the WWTP permittee to conduct an evaluation of optimization methods designed to maintain this nitrogen load. The draft permit also requires the permittee to

submit an annual report that outlines nitrogen removal efficiencies, documents the annual nitrogen load discharged, and tracks trends in the nitrogen load. The CTDEP is pleased that such stipulations targeted at nitrogen loadings have been proposed in the draft Charlestown WWTP NPDES permit and hopes to see this Special Condition incorporated in the final version.

Response to Opening Comment:

EPA acknowledges the comment.

Comment 1:

Also noted in the draft WWTP permit is a requirement for monthly monitoring of nitrogen species based on a grab sample. This type of data will serve to refine nitrogen loading estimates to LIS from upstream states and assist the Connecticut River Workgroup (EPA, NEIWPCC, CT, NY, MA, VT, and NH) in determining supportable management actions. However, we also recommend concurrent sampling along the process or treatment chain, especially the influent. Those data will help determine treatment efficiency and, should nutrient removal be required at some time in the future for local or Long Island Sound management, they will be helpful in determining appropriate technologies and management options.

Response to Comment 1:

EPA has not typically included influent monitoring, or monitoring along the process chain, in permits for NH POTWs discharging to tributaries of Long Island Sound. At this time, EPA does not believe that the additional monitoring requested by the CT DEP is necessary to ensure that the facility does not increase its nitrogen discharges above its baseline. Therefore, the nitrogen monitoring requirements in the final permit have not been changed from the draft permit. Should the results of the required monitoring indicate that the annual average nitrogen load discharged from the Charlestown WWTP is exceeding the 60 lbs/day baseline annual average load estimated for this facility (See Appendix D to the fact sheet that accompanied the draft permit), or if we receive information suggesting that the required reduction from baseline loadings of nitrogen from POTWs discharging to receiving waters in the Connecticut River Watershed is not being achieved, the permit may be modified to include additional requirements to address nitrogen.

We would note that the permittee may conduct additional nitrogen sampling in support of its evaluation of alternative operational procedures that may enhance the nitrogen removal efficiency of the facility.

Closing Comment:

We appreciate the expanding cooperative effort with our neighboring states to resolve the nitrogen-loading problem that Long Island Sound endures and thank you for your attention to these needs.

Response to Closing Comment:

EPA acknowledges the comment.

B. Comments submitted by David P. Duquette, Superintendent, Charlestown Public Works Department, Dated May 6, 2010.

Comment 1:

Part I., Section E. (Sludge Conditions): Does not really apply: We will not need to remove sludge, do we report no removal?

Response 1:

Section 405(f) of the Clean Water Act requires that any permit issued under section 402 of the CWA to a publicly owned treatment works include requirements for the use and disposal of sludge that implement the regulations established pursuant to section 405(d) of the CWA (the 40 CFR Part 503 regulations). These regulations include general requirements, pollutant limits, management practices, and operational standards.

EPA understands that sludge from the Charlestown WWTP must be removed and disposed of very rarely. However, because the Charlestown WWTP is, by definition, a “treatment works treating domestic sewage”, as defined at 40 CFR § 122.2, the sludge use and disposal requirements of 40 CFR Part 503 must be included in the permit. If sludge removal does not occur during the life of the permit, then annual letters, indicating that sludge removal has not occurred during the previous year, may be submitted to satisfy the reporting requirements of Part I.E. of the permit. If any changes are made to the current sludge use or disposal practices, then the annual report must indicate the change(s), as well as provide any other information required for the specific use or disposal method.

Comment 2:

Section E/F: Special Conditions. Nitrogen – if we are below 60 lbs/day annual average do we need to remove any?

Response 2:

Please note that the section of the permit containing the nitrogen special conditions (Section E.1. in the draft permit) has been renumbered as “Section F.1.” in the final permit.

The draft and final permits require the permittee to develop a plan for the optimization of nitrogen removal at the facility. If the results of the nitrogen monitoring required by the draft and final permits indicate that the nitrogen load discharged from the Charlestown WWTP is below the 60 lbs/day annual average threshold value estimated for the facility (see Appendix D

of the fact sheet that accompanied the draft permit), additional removal of nitrogen is not required. However, the recommended operational changes identified in the evaluation required by Part I.F.1. of the permit, should be implemented to the extent feasible, in order to further ensure that the mass discharge loading of total nitrogen does not exceed the 60 lbs/day threshold value.

The 60 lb/day annual average nitrogen loading estimate for the Charlestown WWTP assumes a continuous (daily) discharge. Because the Charlestown WWTP discharges approximately 120-140 days per year, a clarification has been made to Part I.A.1., footnote 6, of the final permit which describes how the total nitrogen results shall be determined in order to account for actual number of days the discharge occurs each month. Therefore, the final permit requires the average monthly mass loading of total nitrogen to be derived from the average monthly concentration of nitrogen discharged during the reporting month, (mg/l), the total monthly flow discharged for the reporting month (millions of gallons (MG)), and the number of days in the reporting month, as shown below:

Total Nitrogen (lbs/day) = [(average monthly total nitrogen concentration (mg/l) * total monthly flow (MG)) / # days in the month] * 8.34

For example, if the monthly average total nitrogen concentration in a month having 30 days is 19.6 mg/l, and the total effluent flow for that month is 4.58 million gallons (MG), then the mass loading of total nitrogen for that month is 25.0 lbs/day, as calculated below:

$$\text{Total Nitrogen} = [(19.6 \text{ mg/l} * 4.58 \text{ MG}) / 30 \text{ days}] * 8.34 = 25.0 \text{ lbs/day}$$

Comment 3:

Attachment C, Summary of Reports Required by NPDES Permit #NH0100765, WET Test Toxicity # per year-1, misprint biannually. Is WET Test only once a year and the word (Biannually) in the summary a misprint?

Response 3:

The monitoring and reporting frequency for WET tests specified in Attachment C to Part I of the draft permit is incorrect. This error has been corrected to reflect the annual WET testing frequency required by Part I of the final permit.

Comment 4:

Fact Sheet: Section II, Type of Facility and Discharge Location. The Facility does not utilize dechlorination in its process.

Response 4:

The fact sheet statement is incorrect. Because fact sheets are written to support the draft permit, they are not revised as part of the final permit decision. EPA's response to the above comment, acknowledging the error, is part of the administrative record. We do not believe that the fact sheet error requires any changes to the permit.

C. Comments submitted by Thomas R. Chapman, Supervisor, New England Field Office, United States Department of the Interior, Fish and Wildlife Service, dated May 24, 2010

Comment 1:

This responds to your letter, dated April 13, 2010, requesting that we review the proposed reissuance of the National Pollutant Discharge Elimination System (NPDES) Permit for the Charlestown, New Hampshire Wastewater Treatment Plant for information on the presence of federally-listed threatened dwarf wedgemussel, and concurrence with your "not likely to adversely affect" determination. Our comments are provided in accordance with the Endangered Species Act (87 Stat.884, as amended, 15 U.S.C. 1531, et seq.).

We reviewed our files and the information provided in your letter to assess the potential impacts to dwarf wedgemussels from the proposed NPDES permits. The permit is a reissuance of an existing permit with no modifications allowing additional pollutants or an increase in existing discharge levels. Based on the information provided in your letter and on reports of dwarf wedgemussel populations and their location in the Connecticut River below the wastewater treatment plant, we concur with your determination of not likely to adversely affect.

No other federally-listed or proposed threatened or endangered species under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the vicinity of the project area. Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not necessary at this time. Should project plans change or additional information on listed or proposed species becomes available, this determination may be reconsidered.

Response 1:

EPA acknowledges the comment.

Additional Changes Made to the Final Permit

1. The "Monitoring Requirement" column in the table in Part I.A.1. of the draft permit inadvertently referenced footnote 3 (state certification requirement). This reference has been removed from the final permit because the monitoring requirements are not state certification requirements.

2. A reference to footnote 11, which describes the WET testing schedule, has been added to the Whole Effluent Toxicity (WET) - LC₅₀, column in Part I.A.1. of the final permit.