

**EXHIBIT H**

Uxbridge Wastewater Treatment Facility - Response To Comments

On September 21, 2012, the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) public noticed a Draft Permit (MA0102440) for the Uxbridge Wastewater Treatment Facility.

EPA received written comments from the Town of Uxbridge, the Blackstone River Coalition and the Rhode Island Department of Environmental Management (RIDEM). At the request of the applicant, EPA determined to hold a public hearing on the draft permit based on substantial public interest in the permit. The hearing took place on October 25, 2012, at the Uxbridge Senior Center. At the public hearing, the following individuals made oral comments:

State Senator Richard T. Moore  
Peter Baghdasarian, Town of Uxbridge Selectman and Water/Sewer Commission  
Mark Andrews  
Joseph Curran  
Peter Coffin, Blackstone River Coalition  
Donna Williams, Blackstone River Valley National Heritage Corridor Inc.  
Michael Potaski, Town of Uxbridge Conservation Commission member

The following are responses to all significant comments received and descriptions of any changes made to the public-noticed permit as a result of those comments. Additional changes to clarify permit language have also been made and are summarized at the end of this document.

**A. The following comments were received from the Town of Uxbridge in a letter dated November 16, 2012:**

**Comment A1.** At the time of the issuance of the draft permit, the Town was in the middle of conducting a wastewater facilities planning project. As the agency responsible for the implementation of the regulations, the DPW respectfully submits the following comments on this draft permit:

1. There are several new parameters in the permit that the existing wastewater treatment facility either cannot meet at current flows, cannot meet at the design flow, was not designed to meet and/or has no long term data to show it can meet. These are as follows:

a. The existing facility was not designed to treat to the bacteria levels contained in the new permit (*E. coli* and *Enterococci*) nor is there any data to demonstrate the facility is capable of achieving these new limits.

b. The existing facility was not designed to treat to the total phosphorus levels contained in the new permit nor is there any data to demonstrate the facility is capable of achieving these new limits.

c. The existing facility was not designed to treat to the total nitrogen levels contained in the new permit nor is there any data to demonstrate the facility is capable of achieving these new limits.

d. At the very least, the Town will need time to complete the planning process, design, bid and construct necessary improvements to meet these new limits.

**Response to Comment A1.** EPA recognizes that the existing facility was not designed to meet the referenced permit limits. With respect to the bacteria limit, EPA expects that the existing facility will be able to meet the new limits based on the experience of other facilities in Massachusetts. EPA does not expect that the existing facility can meet the new limits for total phosphorus or total nitrogen. EPA has provided for tiering of the permit limits based on the facility's flow that should provide some relief from the need for immediate upgrades while the planning process proceeds, see Response to Comment A9. However, to the extent that new permit limits cannot be met by the existing facility EPA understands that the Town will need time to complete the planning process, design, bid and construct necessary improvements to meet the new limits, and expects that a reasonable compliance schedule will be developed and incorporated into an EPA enforcement order after issuance of the permit. This schedule would address any permit limit that cannot be met by the existing facility (including bacteria if necessary). Such a compliance schedule is not included within the permit because the permit is designed in part to meet Rhode Island's water quality standards, which do not provide for permit compliance schedules.

*Changes to permit: See Response to Comment A9 with respect to tiered limits.*

**Comment A2.** With regard to pH, the former permit contained a clause after the permit range as follows "unless these values are exceeded due to natural causes." Can this be added into the new permit?

**Response to Comment A2.** EPA is no longer including a blanket statement permitting pH exceedances that are "due to natural causes" in POTW permits. That language is vague and on its face would allow excursions from the technology-based secondary treatment pH range of 6.0 to 9.0 s.u. that are not permissible under 40 C.F.R. § 133.102. Rather, individual treatment plants are being considered on a case-by-case basis to determine whether "natural causes" are present that would support a relaxation of the permit range, and if so to determine a specific alternative pH limit for the facility. In doing so, EPA must ensure that the pH limit complies with both the technology-based standard for secondary treatment of 6.0 to 9.0 s.u.,<sup>1</sup> and water quality requirements based on the Massachusetts SWQS for pH requiring that the receiving water: "[s]hall be in the range of 6.5 through 8.3 standard units and not more than 0.5 units outside of the natural background range. There shall be no change from natural background conditions that would impair any use assigned to this Class." 314 CMR

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<sup>1</sup> The secondary treatment standard does not apply if the POTW "demonstrates that (1) Inorganic chemicals are not added to the waste stream as part of the treatment process; and (2) contributions from industrial sources do not cause the pH of the effluent to be less than 6.0 or greater than 9.0." The Uxbridge WWTF adds inorganic chemicals as part of its treatment process so this exception is inapplicable here.

4.05(b)(3). In most cases, MassDEP requires a permit range of 6.5 to 8.3 s.u. as a condition of state certification.

In the case of the Uxbridge WWTF, the facility has had no excursions from the limit in the past seven years. This indicates an ability to comply with the limit over a large range of natural conditions and no basis for expanding the permit limit range. Therefore no change will be made to the draft permit language.

*Changes to permit: none.*

**Comment A3.** With regard to residual chlorine, the former permit contained different sampling requirements. Can the permit be worded as follows: “two samples per day Monday to Friday, one sample per day Saturday and Sunday and holidays”?

**Response to Comment A3.** The draft permit footnote 15 to the total residual chlorine sampling requirement states “two samples per day Monday to Friday, one sample per day Saturday and Sunday.” EPA agrees that the addition of holidays is consistent with the intent of this language and has revised the requirement as requested.

*Changes to permit: Footnote 15 has been revised to state: “Two samples per day Monday to Friday, one sample per day Saturday, Sunday and holidays.”*

**Comment A4.** With regard to aluminum, this limit is unreasonable given the phosphorus limit and the prevalence of aluminum in phosphorus removal chemicals. It is unclear from the information provided in the Fact Sheet if a determination has been made as to what levels of aluminum may be naturally occurring in the receiving waters. It should be noted that bioassays conducted by the Town are always successful indicating the aluminum that is being discharged is non-toxic. Thus, the Town requests to have aluminum limit reduced to “reporting” status only. Further, the Town supports the Commonwealth in its establishment of a statewide site specific aluminum criterion.

**Response to Comment A4.** EPA’s regulations require that NPDES permits contain limitations on any pollutant which it “determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard,” and to make that assessment based on the approved state water quality criteria. 40 C.F.R. § 122.44(d)(1). EPA conducted an analysis of the “reasonable potential” of Uxbridge’s discharge (Fact Sheet at 28-30) and determined that there was reasonable potential for the discharge to cause an excursion over the Massachusetts chronic water quality criterion for aluminum of 87 ug/l. Therefore a limit on aluminum is required.

EPA recognizes the challenges presented by aluminum limits given the widespread use of aluminum compounds for phosphorus removal. However, the need to remove phosphorus is not a justification for exceeding water quality criteria based on the toxic effects of aluminum on aquatic life, just as the need for disinfection does not obviate the

requirement for permit limits on toxic chlorine discharges. The problem is inherent in the selection of a toxic pollutant as a treatment compound. A permit limit on such a toxic pollutant is both reasonable and necessary.

EPA agrees that there has not been a determination as to what level of aluminum may be “naturally occurring” in the Blackstone River. However, high aluminum concentrations upstream of Uxbridge do not appear to be “natural.” There are numerous potential sources of aluminum to the Blackstone River upstream of the discharge, including POTWs and urban and industrial stormwater discharges. Furthermore, aluminum impairments in receiving waters that are not influenced by point sources have been linked to acid rain, which is due to human activity and therefore does not constitute a naturally occurring condition. See, e.g., ENSR, *Evaluation of potential causes of aluminum-impairment in 21 New Hampshire Ponds* (2007) (Appendix E to *Determination of Total Maximum Daily Load (TMDL) for 158 Acid Impaired and 21 Aluminum Impaired New Hampshire Ponds*).

The MA SWQS do permit MassDEP to make a “determination” that a higher concentration than the adopted criterion is “naturally occurring” in a particular receiving water, and identify an alternate naturally occurring concentration. Any such determination would be part of a Water Quality Standards process, not an individual permit issuance. No such determination has been made by MassDEP for the Blackstone River, and no evidence has been provided that would indicate that the aluminum concentrations currently found in the Blackstone River at Uxbridge are naturally occurring. The available information therefore does not support application of a higher “naturally occurring” criterion, and the 87 ug/l criterion must be used. EPA is aware that MassDEP has indicated its intent to develop site specific criteria for aluminum, and a change in the water quality standards during the permit term would be grounds to request a permit modification pursuant to 40 CFR § 122.62(a)(3)(i)(B).

With respect to the bioassays cited in the comment, these permit limits are independent and whole effluent toxicity testing is not an allowable substitute for limits on specific pollutants that contribute to exceedances of a numeric criterion. It should also be noted that the permit limit is designed to meet the **chronic** aluminum criterion of 87 ug/l, while the facility performs only **acute** Whole Effluent Toxicity testing. EPA’s analysis did not indicate a reasonable potential to exceed the acute criterion for aluminum. Therefore the lack of toxicity in the facility’s bioassays is not inconsistent with the permit limit analysis.

*Changes to permit: none.*

**Comment A5.** Regarding Footnote No. 7, with the Town in the middle of a planning process, it is requested that any modifications should be incorporated into the overall plan for the plant and implemented as determined by the schedule in this plan.

**Response to Comment A5.** Footnote 7 concerns implementation of a chlorination system alarm, required within 6 months of permit effective date. EPA is not opposed to a

reasonable extension of time, but is not willing to defer it indefinitely while the Town completes its planning process. Further, as the Final Permit provides for a tiered flow structure, a major upgrade may be deferred for a number of years, a delay that is not appropriate for this requirement. The Final Permit provides a one year period for completion of this requirement.

*Changes to permit: The timeframe in footnote 7 is modified from "six (6) months" to "one (1) year."*

**Comment A6.** With regard to the dates for the toxicity tests, the new dates may cause an issue with the limited number of laboratories who perform this type of testing. The Town requests that the language from the 1999 permit be maintained in the new permit.

**Response to Comment A6.** The reissued permit identifies specific months for toxicity testing (April and October), as opposed to the 1999 permit which allowed the test to take place any time in the quarters ending June 30 and December 31. EPA and MassDEP's current policy is to provide for a consistent time frame for all toxicity testing in a particular watershed, to allow for better comparability among test results from multiple facilities. EPA and MassDEP are aware of the need to distribute workload for the laboratories and for that reason has identified different months for different watersheds. The requirement to conduct toxicity testing in April and October is consistent with the other POTW permits in the Blackstone River watershed and remains in the Final Permit.

*Changes to permit: none.*

**Comment A7.** Article C.5.a requires a submittal within 6 months of the effective date of the permit. This information is currently being collected as part of the planning process the Town has initiated. It is requested that the submission be tied to the completion of the planning document and not the effective date of the permit.

**Response to Comment A7.** The requirement for submittal within 6 months is limited to (1) a description of the collection system management goals, staffing, information management, and legal authorities; (2) a description of the collection system and the overall condition of the collection system including a list of all pump stations and a description of recent studies and construction activities; and (3) a schedule for the development and implementation of the full Collection System O & M plan. While EPA recognizes that the Town is conducting a planning process, this information does not require the completion of an entire planning document and is not contingent upon any planning decisions. EPA believes these items are appropriately considered at the outset of the planning process and that 6 months is a reasonable time frame for this submittal.

*Changes to permit: none.*

**Comment A8.** With regard to articles C.5.b and c, it is requested that the Town be granted more time to complete since they are in a planning process. The Town requests that these time

frames be tied to the completion of the planning process and not to the effective date of the permit or that the submissions are a requirement of the final year of the permit.

**Response to Comment A8.** Part C.5.b of the permit concerns submittal and implementation of the full Collection System O & M Plan, to be completed within 24 months of the permit effective date. There is no permit part C.5.c. This plan also does not require the completion of an entire planning document and is not contingent upon final plan decisions. The Town already has substantially completed mapping of the collection system, providing the basic information necessary for proceeding with this document. It is not clear what further relevant information would be provided by the planning process and in what time frame that information would be developed; the fact of a planning process alone is not a sufficient basis for deferring this requirement. The timeframe remains the same in the Final Permit.

*Changes to permit: none.*

**Comment A9.** This permit, if issued, will lead to significant costs to upgrade the existing facility. Some of these costs may be controlled by recognizing that the ultimate design flow of the plant (2.5 mgd) would not be achieved for up to twenty years while the flows for the plant for at least the next two permit cycles are expected to fall far short of the design flow. In an attempt to mitigate these upgrade costs and not overdesign an upgrade to the facility, can EPA issue a permit that has two tiers for flows with the understanding that once the plant flow approaches the first flow tier, additional plant accommodations would be needed for the second and ultimate plant design flow? The Town is in the middle of a planning process which may demonstrate a lower design flow would be adequate for the short-term.

**Response to Comment A9.** EPA recognizes that the permit limits for nutrients are based in large part on the design flow of the facility of 2.5 mgd, and that the facility is currently discharging less than 1.0 mgd. While in terms of design flow Uxbridge is the largest of the three remaining POTWs on the Blackstone River to receive nitrogen limits (Uxbridge, Grafton, and Northbridge), at its current level of operation it has the lowest actual flows, lowest effluent DIN concentration, and lowest nitrogen loads of the three. This is in large part a credit to the operators of the facility, who have achieved DIN reductions of approximately 65 percent (26.4 mg/l to approximately 9 mg/l) since 2004 on an entirely voluntary basis. At its current flows, the Uxbridge WWTF is comparable in size to the Burrillville, RI plant, a 1.5 mgd design flow (< 1.0 mgd current flows) for which RIDEM has required nitrogen reduction "to the maximum extent practicable" rather than including a numeric effluent limit. EPA also recognizes that the Town is engaged in a planning process and that it may determine that a 2.5 mgd design flow is unnecessary (the current design flow was based on several large industrial dischargers that have long since ceased operation). A tiered flow structure would also provide incentives for planning decisions, water conservation and other approaches that would reduce or defer effluent flow increases, an outcome EPA encourages given the large total volume of effluent that is permitted for discharge to the Blackstone River.

While the Town has suggested two tiers for flows, it has not suggested a figure for the lower flow. However, MassDEP has suggested that a lower tier of flow be established at 1.5 MGD, and that while the facility remains below that flow the permit contain only load limits for nutrients (set equal to those in the draft permit). While EPA does not accept this proposal in full, EPA agrees that it is reasonable to implement a tiered approach for a facility that is so substantially below its design flow, where (1) the facility's treatment in terms of allocating load among facilities is premised on its design flow, (2) water quality requirements can be met with modified limits at its existing flows, and (3) while the Town is actively engaged in a planning process that includes consideration of whether the current design flow is necessary to maintain in the planned facility upgrade.

The load allocation performed by RIDEM is based on design flow. The Fact Sheet also uses Uxbridge's design flow in discussing the potential downstream impacts, see Fact Sheet at 22-26, including comparison of Uxbridge's potential delivered DIN load to the Seekonk River at design flow (218 lb/day) with the MERL tank 1X loading rate, Fact Sheet at 20. Uxbridge's actual DIN loads to the Seekonk River over the past three summers (May through October 2010-12) have been much less than 218 lb/day, averaging approximately 60 lb/day. As noted above, this is less than the load for Grafton or Northbridge (which have lower design flows). It is sufficiently low that the target load at the mouth of the Blackstone, shown in Table 6 of the Fact Sheet, can essentially be met with Uxbridge at its current loading<sup>2</sup>; this is not the case for any of the other facilities included in the analysis. Similarly, the actual TP load from the Uxbridge facility over the past three summers has averaged 4.8 lb/day, within 15% of the permit load limit of 4.2 lb/day and far less than the 20.9 lb/d that the facility would discharge at design flow and its current permit limit of 1 mg/l.

In evaluating a proposed tiered flow structure, EPA must consider the appropriate reduced flow and the potential water quality-based limits applicable to that reduced flow. MassDEP has suggested setting a tier of limits based on a flow of 1.5 mgd, equivalent to the design flow of the Burrillville, RI facility. However, that value would allow the Uxbridge WWTF to increase its flows over 50% over current levels before more stringent permit limits would be triggered. EPA believes this is too great a scope for increase for the follow reasons:

- (1) While the Burrillville, RI facility has a 1.5 mgd design flow, it is a more modern facility that is currently achieving close to 8 mg/l TN concentrations;
- (2) The Uxbridge's facility's success in achieving substantial nitrogen reductions is in part due to the large amount of excess capacity at the treatment plant, which allows for creation of anoxic zones for denitrification -- it is not clear at what flow capacity will no longer be sufficient for effective denitrification; and
- (3) This tiered structure is specifically designed to allow the Town to move forward with its planning process -- it is not EPA's intent to provide unlimited scope for a 50%

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<sup>2</sup> With a delivered load of 60 lb/day from Uxbridge, the total delivered load is 1,626 lb/day, compared to the water quality target of 1,624 lb/day -- approximately one-tenth of one percent difference.



expansion of the existing system under reduced flow permit limits, in the absence of completed planning to identify short and medium-term, as well as long-term, needs.

Therefore, EPA has implemented a tiered approach based on a 1.25 mgd flow, or 50% of the facility design flow. EPA also notes that the Final Permit requires completion of the planning process during the permit term; this has been included as a change to Part 1.A.2.g in the Final Permit.

At flows up to 1.25 mgd, reduced flow effluent limits will be in place. The reduced flow limits have been calculated as follows:

*Effluent limits carried over from previous permit:* With respect to permit limits carried over from the previous permit, including BOD5, TSS, Ammonia, pH, DO and Total Residual Chlorine, concentration limits remain the same as in the prior permit in order to meet anti-backsliding requirements. Load limits, where applicable, are recalculated based on the reduced flow of 1.25 mgd. Whole effluent toxicity testing requirements and limits remain the same.

*Aluminum and bacteria limits:* These are not based on flow or dilution and are unchanged under the lower flow.

*Nutrient limits:* The new nutrient limits in the reissued permit are modified as follows:

- (1) Nitrogen: Uxbridge's current nitrogen reduction practices are consistent with the water quality target for the Blackstone River at current flows. Therefore for the reduced flow of 1.25 mgd the nitrogen limit of 8 mg/l is replaced with a requirement that "the permittee shall operate the treatment facility to reduce the discharge of total nitrogen to the maximum extent possible using all available treatment equipment in place at the facility," equivalent to the requirement in the Burrilville, RI discharge permit. The Final Permit also requires annual reports that summarize activities related to optimizing nitrogen removal efficiencies, document the annual nitrogen discharge load from the facility, and track trends relative to the previous year.
- (2) Phosphorus: The water quality-based calculation of the impact of Uxbridge's phosphorus load is set forth in the Fact Sheet at pages 12-13 for the design flow condition. The same calculation is set forth below based on a load limit of 4.2 lb/day (the same as that in the Draft Permit), but subtracting Uxbridge's design flow from the total flow in the river in order to ensure that the load limit alone is sufficiently protective at lower flows.

Instream concentration is determined using a mass balance equation as follows:

$$Q_r C_r = \sum Q_d C_d + Pload_{Douglas} + Q_s C_s$$

Where

- $Q_r$  = receiving water flow downstream of the discharge ( $\sum Q_d + Q_{Douglas} + Q_s$ )
- $C_r$  = total phosphorus concentration in the receiving water downstream of the discharge
- $Q_d$  = design flow from each facility (excluding Douglas)
- $C_d$  = total phosphorus concentration in each discharge (assumed to be permit limit)
- $Q_{Douglas}$  = design flow from Douglas
- $Pload_{Douglas}$  = mass load from Douglas (assumed to be permit load limit)
- $Q_s$  = Blackstone River base flow at 7Q10 = 22.75 cfs = 14.7 MGD<sup>1</sup>
- $C_s$  = phosphorus concentration in baseflow, from sampling upstream of all POTWs = 0.04 mg/l

Solving for  $C_r$  yields:

$$C_r = \frac{\sum Q_d C_d + Pload_{Douglas} + Q_s C_s}{Q_r}$$

$$C_r = \frac{56 * 0.1 + 2.4 * 0.2 + 2.0 * 0.2 + 0.4 * 0.2 + 4.2 / 8.34 + 1.2 / 8.34 + 14.7 * 0.04}{(78.4 - 2.5)}$$

$$C_r = 0.10 \text{ mg/l}$$

This indicates that a load-only permit limit, equivalent to that based on a design flow of 2.5 mgd and concentration of 0.2 mg/l, is sufficiently protective at the reduced flow of 1.25 mgd. The 1.0 mg/l winter limit remains in the final permit; at the lower tier flow a load limit of 10 lb/day applies.

The Final Permit also establishes a procedure for triggering the design flow-based permit limits. The Final Permit requires the permittee to evaluate their flow trends if and when the permittee becomes aware that increased flows or planned connections/extensions of the sewer system may result in an exceedance of the 1.25 MGD average annual flow limit, and estimate a projected date that the exceedance is expected to occur. The permittee must notify EPA – Office of Ecosystem Protection in writing a minimum of 60 days before that projected date, and the design flow-based permit limits will go into effect on the date identified by the permittee. If annual average flows exceed 1.25 MGD in any DMR, the design flow limits will go into effect 60 days thereafter. The permittee must notify EPA – Office of Ecosystem Protection in writing upon such occurrence. EPA encourages the permittee to closely track flow trends to avoid violations of the flow limit that will occur if the facility exceeds 1.25 MGD without prior notice to EPA.

*Changes to permit: The permit limits at Part I.A.1. of the Draft Permit have been moved to a new Part I.A.1.b. and a new Part I.A.1.a. has been added with permit limits for flows up to 1.25 mgd as described above.*

*Footnote 2 to Part I.A.1. has been revised to add the following:*

The permittee shall notify EPA by letter to the OEP Director, U.S. Environmental Protection Agency, 5 Post Office Square – Suite 100 (OEP06-5), Boston, MA 02109-3912, with a copy to be submitted with its monthly DMR, (i) no later than sixty days before a projected exceedance of 1.25 MGD annual average flow, if and when the permittee's evaluation of flow trends indicates that flows are expected to exceed 1.25 MGD; or (ii) at the time of filing of the first DMR in which the reported annual average flow exceeds 1.25 MGD.

*Paragraph I.A.2.g. has been revised as follows:*

*The permittee shall conduct a planning process leading to the completion of a Comprehensive Wastewater Management Plan (CWMP) that shall include consideration of whether a design flow smaller than 2.5 mgd may be appropriate within the planning horizon of the plan. The resulting CWMP shall be completed no later than four (4) years from the effective date of the permit and shall be submitted with the reapplication for the next permit reissuance.*

**Comment A10.** The draft permit contains load limits and concentration limits for nutrients (total nitrogen and total phosphorus). Why can't the permit contain just load limits? If the load is acceptable at 2.5 mgd, why is the same load not acceptable at a lower effluent flow rate?

**Response to Comment A10.** In general, both load limits and concentration limits serve important and complementary purposes in NPDES permits. As load limits are based on an annual average design flow and that flow may be exceeded in some seasons, load limits serve to ensure that the permit is protective under high flow conditions. In converse, the concentration limits serve to protect water quality under low flow conditions and to ensure that the treatment facility is being operated to its capabilities. In this case EPA has incorporated a load-only permit limit for total phosphorus under reduced flows up to 1.25 MGD. As discussed in Response to Comment A9, the load limit is sufficiently protective under the reduced flow.

*Changes to permit: See Response to Comment A9 with respect to tiered limits.*

**Comment A11.** With respect to the phosphorus limit, the incremental cost to remove an additional 0.8 mg/L (a decrease in the limit from 1 to 0.2 mg/L) is astounding. In fact, the facility is currently able to achieve an average effluent phosphorus level of less than 0.6 mg/L now, but will need to add a treatment process to reliably reduce phosphorus levels by 0.4 mg/L to 0.2 mg/L. For a facility of this size, the cost to remove a pound of phosphorus at such low limits is

extremely high when compared to larger facilities with much higher discharges of phosphorus. If 4.2 lb/d is an acceptable discharge at 2.5 mgd, why can the Town not be allowed to manage the cost of their upgrade by being allowed to meet a load limit – why is that same load not acceptable at any flow rate?

**Response to Comment A11.** EPA recognizes the increased cost involved in meeting the permit limits, but cost is not a consideration in setting water quality-based effluent limits in NPDES permits. *Upper Blackstone Water Pollution Abatement District v. U.S. EPA*, \_\_\_ F.3d \_\_\_ (August 3, 2012); *United States Steel Corp. v. Train*, 556 F. 2d 822, 838 (7<sup>th</sup> Cir. 1977); *see also In re City of Moscow*, 10 E.A.D. 135, 168 (EAB 2001). As stated in the Response to Comment A10, both load and concentration limits serve important and complementary purposes in NPDES permits. In addition, the permit limit of 0.2 mg/l has been established as representing “highest and best practical treatment” under the MA SWQS and is defined as a concentration limit. As noted in Response to Comment A9, EPA recognizes that the facility is operating substantially below its design flow and has provided tiered limits to allow the facility time to plan for an upgrade, including consideration of appropriate design flow. Under the reduced flow a load limit of 4.2 lb/day is in effect, as requested by the permittee. The permittee should assume that any upgraded facility must be capable of achieving a 0.2 mg/l monthly average total phosphorus limit.

*Changes to permit: see Response to Comment A9.*

**Comment A12.** The recent draft permit issued for Burrillville, RI contains no nitrogen limits and that facility is located further downstream and closer to Narragansett Bay. Uxbridge, like Burrillville, represents one of the smallest nitrogen loads from a wastewater treatment facility on the Blackstone River. Uxbridge has reduced its nitrogen levels to 11 mg/L as noted in the Fact Sheet. It should be noted that this reduction was done voluntarily. If required to further reduce nitrogen levels, small wastewater treatment facilities like Uxbridge will pay much more per pound removed than larger facilities which are able to remove nitrogen far more cost effectively. It would seem that this was recognized when the Burrillville permit was issued. But then, why would Burrillville have no limit while our facility has a limit? Since the Town has demonstrated a capability to voluntarily maximize nitrogen removal at the facility, the Town requests terminology in their permit that is similar to that which is in the Burrillville permit: “The permittee shall operate the treatment facility to reduce the discharge of Total Nitrogen to the maximum extent possible using all available treatment equipment in place at the facility.”

**Response to Comment A12.** According to RIDEM, the basis for the permit conditions on the Burrillville POTW is its lower design flow of 1.5 mgd (operating at 0.85 mgd at last reissuance). RIDEM’s position is that at that small flow, a reduction in nitrogen would not be that significant in pounds per day. (*Personal communication, Joseph Haberek, RIDEM, March 4, 2013*). Based on the Burrillville DMR data this appears to be the case. Burrillville’s average total nitrogen concentration in the summers of 2010 to 2012 was 9 mg/l. (The DIN concentration, which is what Uxbridge has reported, averaged 6.9 mg/l). An equivalent permit limit of 8 mg/l TN would achieve a 1 mg/l reduction, or 12.5 lb/day at Burrillville’s design flow. In comparison, Uxbridge is

achieving a DIN concentration of approximately 9 mg/l (TN 11 mg/l). At design flow the load reduction from an 8 mg/l permit limit would be 62.5 lb/day. This is five times the potential reduction from the Burrillville facility.

EPA recognizes that Uxbridge has achieved substantial reductions in nitrogen discharges using its current facility and that it is operating well under design flow, and therefore has included tiered limits to allow the Town time for its planning process, including consideration of the necessary design flow. See Response to Comment A9. The permittee should, however, expect to implement an 8 mg/l TN limit in its upgraded facility for any projected design flow greater than 1.5 mgd.

*Changes to permit: See Response to Comment A9.*

**Comment A13.** The Town has very limited property for additional facilities and if required to meet these new permit conditions will need to wisely choose how best to use remaining property. And, given the limited funds available to address this permit, it is imperative that any work that is put into the existing facility would not be undone by a short-term change in the permit. What permit limits are expected to be in the next two permit cycles? Can EPA make a commitment with regard to how long these proposed limits will be in effect?

**Response to Comment A13.** EPA recognizes the space constraints at the facility and the objective to ensure that upgrades implemented to meet this permit are not undone by changes in future permit reissuances. While the permit limits are based on the best available current information, EPA notes that permit limits would be subject to change in connection with a duly issued and approved TMDL containing different load allocations. There is also the potential for long-term monitoring, subsequent to the implementation of facility improvements at all the facilities in the watershed, to indicate the need for additional reductions. Therefore, while EPA can commit that these limits are unlikely to become less stringent (due to anti-backsliding requirements), EPA cannot make a firm commitment that the permit limits will not become more stringent in future permit cycles, particularly if those permit cycles extend longer than five years, as was the case with this reissuance. As with all permits containing nutrient limits, particularly those where the watershed-scale and long range impacts of nutrients may create uncertainty as to the response of the system to loading reductions, EPA encourages facility designers to attempt to maximize the flexibility of their designs to allow for accommodating future process changes.

*Changes to permit: None.*

**B. The following comments were received from the Blackstone River Coalition in a letter dated November 16, 2012:**

**Comment B1.** The Blackstone River Coalition strongly supports the recently proposed draft permit limits for the Uxbridge Sewage Treatment Plant. The new nutrient limits will provide significant water quality improvements for the Blackstone River, its downstream impoundments and ultimately the Narragansett Bay.

Uxbridge is not alone in facing new limits for nitrogen and phosphorous. Every treatment plant along the river in both Massachusetts and Rhode Island is, or soon will be, forced to upgrade the quality of their discharges. Detailed scientific studies and years of citizen monitoring all report excessive nutrient levels that continue to plague the Blackstone. It is not EPA that tells us there are too many nutrients in the River; it is our noses. It is not arcane scientific models, but our eyes that can see excessive vegetation smothering downstream impoundments, and have witnessed fish kills in the Narragansett Bay.

Unfortunately, much like global warming, scientists can argue interminably as to what sources contribute how much, or how long it will take to achieve critical levels, or even what those levels are; but no one can disagree that there are simply way too many nutrients in the Blackstone River. Yes, regulators need to consider the effects of stormwater runoff and the existence of historic sediments; but at times of critical low flows in the summer, sewage treatment plants are the dominating factor affecting water quality.

Treatment at the end of the pipe is critical and necessary, but in all likelihood even the proposed limits will not be sufficient to achieve a "Fishable/Swimmable Blackstone". The Blackstone River Coalition is committed to work with homeowners and businesses, cities and towns, federal and state agencies to restore a river we can be proud to call our home.

**Response to Comment B1.** EPA notes the support of the Blackstone River Coalition for the nutrient limits. EPA appreciates the commitment of the Blackstone River Coalition to work with stakeholders for the restoration of the Blackstone River. As discussed above, the tiered limits provided in the Final Permit will ensure that the facility maintains the nutrient reductions it has achieved; provides an incentive to avoid increasing flows, and allows the facility to meet water quality standards at its current flow, while the Town engages in planning for an upgrade and further treatment for such time as flows increase.

*Changes to permit: See Response to Comment A9 with respect to tiered limits .*

**C. The following comments were received from the RIDEM in a letter dated November 13, 2012:**

**Comment C1.** The draft permit includes summer e-coli limits, to meet the Massachusetts water quality standards, and year round enterococci limits, to meet the Rhode Island water quality standards. The enterococci limits account for die-off when assigning permits limits that will meet the Rhode Island standards at the state line. These permit also include a condition that, after a minimum of 1 year, the permittee may request a reduction to only require enterococci monitoring in the winter if it is determined that "e.coli control is adequate to ensure control of enterococcus". Although RIDEM is willing to accept the reduction to the enterococci monitoring, this reduction should only be made if it is demonstrated that compliance with the e.coli limit will also ensure compliance with the enterococci limit. Therefore, RIDEM is requesting that the following change be made to footnote 8 of the permit:

8. *The E. coli limits are State certification requirements. The enterococci limits are a requirement of the EPA permit and are not a requirement of the Massachusetts Department of Environmental Protection (MassDEP) permit.*

*The enterococci sample shall be collected concurrently with one of the E.coli samples during the April to October period. After a minimum of one year, the permittee may request reduction of enterococci monitoring to winter only, if the monitoring data demonstrates that compliance with the E.coli limit is adequate to ensure compliance with the enterococcus limit. The request shall be made in writing to EPA and shall include all concurrent monitoring data collected by the permittee. The permittee shall continue sampling for both E.coli and enterococci between April and October until receiving written approval of its request from EPA.*

**Response to Comment C1.** EPA agrees that the revised language is consistent with the intent of the original language in the Draft Permit and more clearly states the showing that is required for EPA approval of a reduction in monitoring. The Final Permit has been modified accordingly.

*Changes to permit: Footnote 8 has been modified as set forth in the comment above.*

**D. The following comments were made orally at the Public Hearing on October 25, 2012:**

**Comment D1 from Senator Richard T. Moore:** Thank you, Mr. Chairman. For the record, Richard T. Moore. I am a Senator in the General Court, and a resident of the Town of Uxbridge.

I have several comments. I will provide to the agencies more detailed written comments before the November 19th deadline.

But, the observations that I have first is that, I know this effort has been going on for some time, and particularly, the last year or so beginning in Worcester and then in the upper Blackstone and other communities.

And I'm somewhat concerned about the timing of it. And I know that might come in to -- at the end, once the permit is granted and the effort is -- with the Town is scoped out as far as the compliance requirement. But, given the state of the economy, and given the current condition of the Federal Treasury, I'm concerned that neither the Federal government nor the communities along the river have the resources necessary to do all that might be required by the permit, certainly within a short period of time.

And even though I don't know anyone who is probably opposed to clean water, or cleaner water, that the economics of it and the impact -- not just here, this is -- I know this is a national activity and a lot of places are subject to this. Some probably worse off than -- than we may be economically.

But, nevertheless, it is a -- it does constitute adding an additional significant economic burden to the users of the system, whether they be individual homeowners or commercial entities or industrial entities. And I would imagine, some of the entities that might have to do pre-treatment, potentially as well, in order to comply with the permit.

So, it is an additional burden to the -- the larger users potentially of the system.

The -- there is, I think it is important for the agencies to respond to the degree that the science on which -- on what it is based on, on what the numbers that have been selected, and even if they are numbers that have been in place for some period of time and yet, not achieved in many places, what is the science behind that, and will, whatever the permit calls for, will it actually make a difference in the body of water of both the Blackstone River and the Narragansett Bay.

And so, will we, if we spend \$20,000,000 or \$30,000,000 upgrading the plant, what is the assurance that it will, in fact, make a difference in the quality of the river. I'm not sure that -- at least in the discussions I've had with EPA on another issue, the storm water runoff issue in Bellingham and Norfolk and Franklin, they -- I still haven't heard a good answer for that.

And so, I would be hopeful that, in this case, where it is utilizing a treatment plant that perhaps, there is better science behind it. I would hope that there is. I don't know that that's the case but -- on which these regulations are based.

The other activity is relative to the financing and the cost of the actual compliance that we are complying with a Federal statute, a State statute, I guess, and State regulations on which they are based.

The benefit of compliance is a benefit that all citizens, residents of the United States will realize and why the users pay the sole cost of that compliance is a concern. It seems to me that the Federal Treasury, and perhaps that means borrowing more from China. But, the Federal Treasury ought to be more involved in this than it is. A low interest or even if it is a zero interest loan, but a low interest loan isn't the same as at least some more significant participation by those who will be the ultimate, both immediate and long term beneficiaries of cleaner rivers ought to share in that burden, not only the users, who I could conceive of the users, because they have the immediate benefit, potentially -- or at least, are -- might be considered to be the immediate contributors to the -- to the pollution have a heavy burden, the responsibility. But, so does the population as a whole, as represented through the government of the United States.

So, I think, how -- how quickly the permit gets developed, on what it is based is important, how it is funded and how it's -- how the funding that's used to comply with the permit, I think are all matters that need to be discussed by the agencies involved in the -- in the enforcement and certainly will be by the communities involved.

I would hope that there is some assistance from the EPA, perhaps the DEP, but certainly the EPA, with assisting the community to do some of the things that I mentioned during the informal part of the discussion and that is, are there things that the community can do, or the users of the system can do that would reduce the impact on the plant itself and the operations of the plant as far as what they put into it. And -- and so that the cost is spread out much more and perhaps is reduced at the plant level because of the -- those contributing to it have to take whatever action might be appropriate.

And so, some technical assistance to the community, I think, would be beneficial in that regard, assuming there is -- there are steps that could be taken.

So, those are my -- my initial comments to you. And I will provide more details to that in writing.

**Response to Comment D1.** EPA recognizes the concern about the timing of new permit limits in an economically weak time. EPA does not expect compliance immediately but expects to develop a reasonable compliance schedule based on affordability that takes



into account current economic conditions, and moreover has provided for tiered limits that allow the Town of Uxbridge additional time if its flows remain at a low level.

EPA also recognizes that where pollutant sources are dispersed and the impacts are felt downstream, such as with nitrogen impacts on Narragansett Bay, it is often impossible to quantify the incremental benefit associated with reductions from an individual source. This is not an indication that the science is inadequate but is simply inherent in the nature of a watershed-scale, dynamic system. The science is compelling that large reductions in discharges from POTWs are essential to achieving water quality goals, and that while the biggest treatment plants are most important (and have been treated as such), controls on smaller facilities are necessary as well.

While the commenter's perspective is that pollution controls benefit all with the cost to just a few users, another perspective is that a widespread population has borne the burden associated with degradation of the the Blackstone River, which has come as a result of under-regulation of pollutant sources, which in the short term benefited the users of sewer systems at a cost of degradation of both a river of national significance and the largest estuary on the east coast. The construction cost of the current Uxbridge WWTF was widely distributed, as it was funded with federal taxpayer money through the construction grants program. Federal grant funding is no longer available, but construction of upgrades is still eligible for low interest loans from the SRF program. EPA recognizes that funding mechanisms have shifted to greater user funding. This is not in EPA's control but it is not inherently inequitable. With respect to technical assistance, EPA has published technical assistance documents with respect to nutrient control technologies and both EPA and MassDEP are prepared to work with the Town of Uxbridge on its technical challenges.<sup>3</sup>

*Changes to permit: See Response to Comment A9 with respect to tiered limits.*

**Comment D2 from Peter Baghdasarian:** Thank you. As you can see, I'm a member of the Board of Selectmen and a member of the Board of Health.

And by virtue of being a Selectmen, Selectmen are also Water Sewer Commissioners in the Town of Uxbridge.

I heard the word feasibility used a little earlier in the -- in the commentary. There are two kinds of feasibilities. Scientific feasibility and financial feasibility.

And my concern is, when I look at regulations from the EEP -- the EPA, and the DEP, I see a diversion between substance and form. And we don't mind spending money for environmental protection, if a dollar spent produces a dollar's worth of actual protection of the environment.

But, where \$10 is required to be spent to get a \$1 or \$2 benefit for the environment, that degrades the environment. Because, it takes -- consumes money, resources, otherwise available to put into areas that will produce a better return. Just a simple economic reality.

The term used was, you want to eliminate pollutants in the downstream. Well, of course, that's not possible. But yet, we see that word all the time. Eliminate.

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<sup>3</sup> EPA notes that it did not receive written comments from Senator Moore.

So, there seems to be a greater emphasis on form over substance. And I would like to see a much greater emphasis on the substance.

To the extent that the DPW in Uxbridge is required to expend a certain amount of money, that money is not available to buy newer equipment. And newer equipment provides a better environmental benefit than the equipment we have today.

So, it's not a question of spending money to help the environment or not. When we spend resources, that are not completely justified by good science, it also degrades the environment.

And I think that part of it needs to be understood more. When I go on the DEP website -- I've been on the EPA website, but not as much, you see -- I find more attorneys than I find scientists. And I think, somewhere along the line, we have to shift the balance of responsibility.

In the case right here, we have two agencies basically doing the same thing which doesn't seem to be economically the best way to spend the governmental resources.

I know there is always a tendency for every agency to hone in on its own mission. And I understand that. But, there needs to be, and that has to come from the legislature, both the State and Federal, that everything should have a strong scientific basis and be economically feasible.

We have to look at the economic cost, because everything we do to generate economic funds has an environmental impact.

So, efficiency in regulation is an absolute must.

Thank you very much.

**Response to Comment D2.** Water quality-based limits in NPDES program are required to be sufficiently stringent to attain water quality standards. Under the applicable law and regulations there is no allowance for cost-benefit analysis in this process. See Response to Comment A11. This is not an issue of form over substance; the substance of water quality-based permit limit development is simply limited to water quality concerns, not cost. To the extent that cost can be considered, adjustments to water quality standards can be made, pursuant to 40 CFR 131.10 (g)(6) if necessary controls would result in substantial and widespread economic and social impact. Such an adjustment has not been proposed or approved for this receiving water

EPA does not concede that water quality benefits are such a small fraction of costs, although such an analysis is not a permissible basis for NPDES permit and no cost benefit analysis of the permit limit has been performed. EPA also disagrees with the suggestion that the permit limits are not supported by "good science." Further, upgrades to meet the permit limits are generally a portion of a larger project to upgrade outdated facilities: Uxbridge's existing plant is over 30 years old.

Neither EPA nor MassDEP employ more lawyers than scientists and engineers, and coordination between state and federal agencies is both necessary and more efficient than each agency writing independent permits to satisfy state and federal statutory requirements. EPA agrees that permit limits should have a sound scientific basis; water quality based permit limits are not based on cost. See Response to Comment A11.

*Changes to permit: none.*

**Comment D3 from Mark Andrews:** Hello. Thank you for coming tonight. My name is Mark Andrews.

I'm not -- I don't have town sewer. So, theoretically, I'm not affected by this. However, I do pay attention to the town finances and stuff like this. And I know that this will affect the school budgets, the municipal budgets because they all use town sewer.

So, I have a couple of questions. First of all, the jump of 5X sensitivity in the phosphorus, is it your history that you say, okay, that's a very tremendous jump.

So, you would ease it in over time? Is that what you expect to do? Is that what you have been doing with the permits to date?

It's very hard scientifically to make that huge jump without actually going through a process.

Now, we've been told that this -- potential changes could result. And the studies haven't been done to determine the plant and that type of thing. But, it could be up to a \$30,000,000 charge.

And you have a specification that says this wouldn't -- this wouldn't respond back to any person or person over the -- less than 3 percent of the annual income of the average person in Uxbridge.

And I think you might have a tough time with that because only -- I think it was mentioned only 52 percent of the people are on town sewer. Okay. So, that's something that you need to take a look at. Will we be able to meet that criteria over time?

The other thing is that you have to understand to us, is we always have a very tight school budget and municipal budget. They will be charged these fees.

That's why I asked the question is, do you guys have a funding source? Because, if it's a very, very important thing to do, I think, the Federal government should act in collaboration with the local Towns and help that process happen.

Because it's not only Uxbridge. It's Grafton before us. Worcester before us. Okay. We may do a great job, but if they don't do a great job, then -- then, we're sort of like losing the whole system of why we're trying to accomplish this.

So, my thought process, back to you guys is, can we think this out? I know we have to come up with a permit pretty quickly.

The other thing that concerned me was, when I asked a question about how long would the existing regulations last, and the response back was, well, for this permit, we think it will last longer but, maybe it won't.

And I think, we need to think about this more long-term. Because, if you -- if we make changes today that are useless for the next version that may come out, you've just wasted our money. And that will reflect back negatively on the entire process.

Thank you.

**Response to Comment D3.** The comment appears to reflect some uncertainty as to the basis for the phosphorus limits. The analysis underlying the permit is set forth in detail in the Fact Sheet. With respect to "eas[ing] it in over time," EPA expects that a compliance schedule will be developed providing time to come into compliance with the permit limits. See Response to Comment A1. In addition, based on the current flow level significantly below design flow, the Final Permit contains alternative limits reflecting the lower flow. See Response to Comment A9. In general, affordability analysis incorporates a maximum of 2% of the median household income (MHI) of the rate payers

(i.e. only those on the sewer system). *Interim Economic Guidance for Water Quality Standards*, EPA-823-B-95-002 (March 1995). The permittee should be prepared to perform analysis to determine the projected rate impacts as a percentage of MHI.

EPA funding is through the SRF program and consists of low income loans. EPA recognizes concerns about long term uncertainty but is constrained by statutory requirements that permits be issued for five year terms. See Response to Comment A13.

*Changes to permit: none.*

**Comment D4 from Joseph Curran:** I'm Joseph Curran, resident of Uxbridge.

I would say that I really focus on the total cost. We are a town of about 14,000. And initially, I looked upon that as representing a cost of about \$2000 for every man, woman and child.

If we're talking about 52 percent of the town on the sewerage, well, now, that changes those numbers. And we're talking probably in the vicinity of \$4000 to \$5000 for the people who are on the town sewerage system. And I think it's going -- that's going to be found to be very objectionable.

There is really nothing for us as a town. It would be one thing if the effluent was discharged into a recreational lake or a source of drinking water. I could see some real stringent things put in place.

Also true, we checked the effluent at the point of discharge. Maybe we should be looking at the discharge 100 feet or so, or whatever the distance might be, from its point of entry to see how it is diluted by the flow of water in a particular river, lake or what have you.

Some of these things were given in terms of milligrams per liter. I prefer to change them into parts per million.

So, the objections of the phosphorus comes down to .2 particles per million and the nitrogen 8 parts per million.

Our own drinking water consists of a nitrate concentration of 1.5 parts per million, copper .4 parts per million.

So, we start with our own drinking water which is coming from a well. Therefore, you will have naturally occurring materials in there that could possibly contribute to what is being processed through the sewerage treatment plant.

Our effluent is within range right now. And I can't -- I don't see the real benefit of changing some of this drastically, particularly so is the fact that too many communities are really a part of the final outcome of how this is going to be. And we're coming back to a price tag on this that is extremely high and the possible results from this are questionable at best.

Thank you.

**Response to Comment D5.** Costs will be taken into account in determining compliance schedules, see Response to Comment D3. Dilution is taken into account in the analysis of water quality-based limits. Human wastes are a clear and significant source of nutrients well above naturally occurring materials.

EPA also recognizes that where pollutant sources are dispersed and the impacts are felt downstream, such as with nitrogen impacts on Narragansett Bay, it is often impossible to quantify the incremental benefit associated with reductions from an individual source. This is not an indication that the science is inadequate but is simply inherent in the nature of a watershed-scale, dynamic system. The science is compelling that large reductions in discharges from POTWs are essential to achieving water quality goals, and that while the biggest treatment plants are most important (and have been treated as such), controls on smaller facilities are necessary as well.

*Changes to permit: none.*

**Comment D5 from Peter Coffin:** Peter Coffin with the Blackstone River Coalition. I reside in Mendon, Massachusetts. I'm on the Con Com'n there.

Our board has not taken a vote on our stance on this permit. But, I feel comfortable that they will most likely take the same stance that they took on the Worcester permit, which is to support the EPA's stringent limits recognizing that there are physical impacts on the communities.

But, as a previous speaker noted, it all works together. And if we want this river to be fishable and swimmable, like I'm sure we all do, and it is used for recreation a great deal, the plan is to work on all the permits and the treatment plants together.

Worcester is at .1 and they've been screaming. Grafton is at .2 and Uxbridge -- all of them consistent. If you look down stream, Woonsocket, an environmental justice community with even less financial resources, is stepping up and designing their plant to meet their new permit limits with nitrate of down to .3 I think, or 3 parts. They went even beyond, because they're developing a new system.

And each -- each plant is different and has different needs.

But, it is one river and it reacts to the phosphorus all together.

So, some would argue, why -- why do small treatments get .2, and the big ones have to do .1. Where -- where's the fairness in that?

I -- I don't understand all the complicated nature. And I understand, okay, bigger systems can achieve greater efficiencies. So, it makes sense, bang for the buck, to focus our -- the efforts there.

Just along those lines though, when the -- when the Worcester permit came out, I think, the Draft Permit was in 2008, 2009, there was public hearings. And at that time, the State of Massachusetts said, well, you know, we know the phosphorus is good. Let's do a TMDL. Let's do a scientific study and get a real justification of how much we're going to have to do. And get it done by 2013.

My board -- and we felt back in 2009, no, 2013 was too far away, that we had to start working on now on nutrients. So, maybe I regret that position because, 2013 is looking pretty close. And if we had a TMDL in place, we'd be in a lot better position in getting these permits out.

And that brings up the larger issue that yes, these permits are tough. And they're going to get us a lot closer to where we want to go.

But, it's not going to get us where we need to go, because we all have to work on other sources of phosphorus, non-point source. And we have to work together. And there are many

ways that Towns can work together on new development and retrofitting old development and homeowners, what they can do.

And thanks to the legislature getting the phosphorus out of the fertilizer. There was a lot of education. And we all need to do a better job on that.

So, I look forward to working with the Town and all the Towns. The Blackstone River Coalition is committed to helping out the Towns do the education and the outreach to the general populace and the people understanding that there is too many nutrients and we all have to work together on it.

So, we will follow up with formal comments later. But, thank you.

**Response to Comment D5.** EPA acknowledges the support for the nutrient limits in the permit. EPA notes that the different wastewater treatment plants mentioned in the comment receive different permit limits and conditions based on both their size and the location of their discharge (which effects both the dilution and the potential attenuation of the discharge). The Worcester facility referred to (the Upper Blackstone Water Pollution Abatement District) is both the largest facility in the watershed (56 mgd) and receives the least dilution, as it is located in the upper portion of the watershed where very little dilution is available. It has therefore received the most stringent limit (0.1 mg/l) for phosphorus, which has direct water quality impacts at the point of the discharge, and relatively stringent (5 mg/l) total nitrogen limits to prevent downstream impacts in the Providence/Seekonk Rivers. Woonsocket has the second largest facility (16 mgd) and discharges just upstream of the nitrogen-impaired area, and therefore has received the most stringent limit for both phosphorus (0.1 mg/l) and nitrogen (3 mg/l). Uxbridge, as well as Grafton and Northbridge, receive some dilution from baseflow in the Blackstone River and therefore receive somewhat higher phosphorus limits (0.2 mg/l at design flow), as well as somewhat higher nitrogen limits reflecting the size of the facility (8 mg/l at design flow), with Uxbridge receiving an additional tier of limits at its reduced flow. This approach is consistent with EPA guidance on load allocation approaches in TMDLs and other contexts.

With respect to the 2013 schedule for TMDLs, unfortunately there is no realistic prospect of a TMDL for the Blackstone River being completed in 2013. Despite the projected date stated in the 2012 303(d) list, MassDEP has informed EPA that the TMDL will not be completed in 2013. Nor has MassDEP provided a projected timeframe for completion, stating that the TMDL is not actively being worked on. However where a TMDL has not been completed for an impaired water and a permit to the affected receiving water has expired, EPA must proceed with permit issuance nonetheless. EPA's regulations are quite clear: where a discharge plant "will cause, have reasonable potential to cause, or contribute to" a water quality violation, EPA must include effluent limits designed to ensure that the discharge does not cause or contribute to water quality violations. When developing and issuing an NPDES permit, EPA cannot postpone reasonable potential determination and limit setting for a pollutant on the basis that there may be a TMDL for that pollutant sometime in the future.

*Changes to permit: none.*

**Comment D6 from Donna Williams:** Thank you for the opportunity to comment.

I'm Donna Williams. I'm a Grafton resident up river. We're going through the same thing. We have a permit with the same -- a Draft Permit with the same limits as Uxbridge.

Our plant is just about the same size as Uxbridge's and the same age. I believe, they were both built around 1979.

They are old plants. They are really aging. I know they have been maintained. But, they -- they do need upgrades.

I would like to speak on behalf of the Blackstone River Valley National Heritage Corridor Incorporated. This is the new management entity, the new nonprofit that is taking the place of the Federal commission for the Blackstone Heritage Corridor. Senator Moore is a fellow director with me on -- on this board.

And this board, this Blackstone River Heritage Corridor Incorporated strongly supports EPA's limits on nutrients.

The Blackstone River is a river of national significance. And that is proven by the fact that we have the Blackstone River Valley National Heritage Corridor. 24 communities have been named part of a National Heritage Corridor.

And the river is the lifeblood that runs through this entire corridor and obviously through our watershed. It is the basis of our watershed.

And perhaps you know that there is a proposal for a new national historical park within the Blackstone Heritage Corridor. So, we have the opportunity to help make this river -- to help restore it and make it much more appropriate for that kind of national status.

We know it is an old industrial river. And we all live in towns that have been industrial towns and villages and have contributed to the degradation of the river over time.

The river is much better than it has been for decades, for centuries. But, it's not anywhere near where it needs to be in order to meet class B standards of fishable, swimmable.

So, by reducing these nutrients, then, we will help get to that goal.

The Blackstone River Coalition has a very admirable volunteer water quality monitoring program. Tammy Gilpatrick is here. She is the coordinator of the program and an Uxbridge resident.

So, we have 80 monitors monitoring it at 79 sites. I always get those confused -- 79 sites throughout the watershed from Worcester to Pawtucket. And they monitor on the second Saturday of every month from April through November.

That's a lot of data. It's much more data than the sparse resources of the State can use to provide that kind of data. This data is reliable. It has a quality assurance project plan that has been approved by EPA, MassDEP and Rhode Island DEM. The data is reliable.

What the data shows is that the main stem of the river is overwhelmed with nutrients, with phosphorus and nitrogen. And most of that -- much of that is coming from the wastewater treatment plants. Principally Worcester.

It's a huge plant at the head of a river that is small at the beginning of the river. It's much smaller up there certainly than it is down here or in Pawtucket.

So, Worcester is going appeal, after appeal, after appeal, after appeal, to no avail. So far, they have spent hundreds of thousands of dollars on lawyers and consultants. I would hate to see Uxbridge get into that cycle and spend very scarce dollars on an appeal to only enrich the lawyers and the consultants, because eventually, all of these Towns are going to have to meet these standards.

So, why waste that money on an appeal.

I know that under the Clean Water Act, cost cannot be a consideration for setting the limits -- for setting the limits, the standards. However, cost is -- can be and is a consideration in the implementation and the schedule for achieving those limits.

So, EPA does take affordability into account.

So, I know it sounds daunting. We don't know for sure if these estimates are accurate. Often they're way overblown. There are new technologies that can be used for these aging plants.

So, I would -- I would hesitate to say absolutely that this is going to cost \$30,000,000. It might not.

So, I would just urge you to keep an open mind and really think about the river as a resource that is so important to all of us. It might not be a drinking water. It might not be our swimming hole.

But, it certainly is a major -- as I say, it's a river of national significance and it really deserves to be as clean as we can possibly make it. Thank you.

**Response to Comment D6.** EPA acknowledges the support for the nutrient limits in the permit. With respect to affordability see Response to Comment D3.

**Comment D7 from Michael Potaski:** Thank you. Michael Potaski of Uxbridge, a member of the Conservation Commission here in town.

I wasn't going to speak tonight, but, I sort of object to the idea of a previous speaker telling us we should just suck it up and not appeal or try to find some common sense in this process.

There are problems in what you've presented to us. They were brought forward by a previous speaker. I think they need to be emphasized in terms of the cost of this.

2 percent of median household income, 2 percent of the median household income of the community at large or of the 52 percent that are using the sewer facility.

I think you will find, if you examine the town, the majority of the sewer service is in the old part of town where the median income is much lower than that of the town at large.

So, to say the town at large has a median income, which should be the basis of your calculation, is a flawed approach to it. Be reasonable. Take the median income of those people who are on the sewer system and who will pay for these upgrades.

I'm also concerned about the reasonable schedule for implementation. Who defines what is reasonable? Is it a collaborative effort on the part of DEP and EPA working with the Town authorities to determine what is reasonable?

Or does the DEP and EPA say, this is what we consider reasonable, you will comply? What's it going to be?

That's not here in your presentation. Define reasonable for us, and we might be a little bit more comfortable with what's going on here.

Yes. I see the problem in Worcester. Worcester tried to be reasonable, thinking that EPA and DEP was staffed with reasonable people. And because they missed some arbitrary deadline to respond, the Courts are now telling them, well, too bad, suck it up, pay it.

I don't think that's being reasonable on the part of EPA and DEP. If a community misses a deadline, work with the community, don't shove it down people's throats.



Thank you.

**Response to Comment D7.** Median household income is appropriately based on the ratepayers served by the sewer system. See Response to Comment D3. EPA expects a reasonable schedule to be developed, and that it will be consistent with national guidance regarding affordability. See Response to Comment A1. EPA disagrees with the characterization of the proceedings in Worcester.

*Changes to permit: none.*