

June 20, 2007

Ian Bowles, Secretary  
Executive Office of Energy and Environmental Affairs  
100 Cambridge Street, Suite 900  
Boston, MA 02114

Attn: Nicholas Zavalas, MEPA Office

Re: Comments on Assabet River Consortium draft Comprehensive Wastewater Management Plans and Environmental Impact Reports, Phase III - Recommended Plan (EOEEA No. 12348)

Dear Secretary Bowles:

The Conservation Law Foundation (“CLF”) submits the following comments on the above-referenced draft Comprehensive Wastewater Management Plans and Environmental Impact Reports, Phase III – Recommended Plan (collectively referred to as the “Plan”) under the Massachusetts Environmental Policy Act (“MEPA”).

First, we should mention that it was not possible to get a copy of the document. Repeated contacts to the person identified as the contact for documents were not returned as the person was traveling. When the contact person finally left a substantive message, it was to the effect that he didn’t have the documents except for an executive summary and that individual towns were distributing their individual plans. As a result, we were limited in our ability to review the Plan because of this barrier.

Our principal concern with the Plan is its proposal to increase the maximum discharge into the Assabet River from the Marlborough Westerly Wastewater Treatment Facility (the “WWTF”) permitted by its current NPDES Permit by 52% from 2.89 to 4.4 million gallons per day. This increase is very troubling given the current state of the Assabet River system with respect to nutrient pollution.

Such increase cannot occur unless and until EPA issues a new or modified NPDES permit allowing it under the federal Clean Water Act. The MEPA process only marginally and tangentially relates to the criteria that EPA must apply in determining whether or not to issue such modified or new permit. The MEPA process only seeks to provide a basis for MADEP to determine whether or not it can certify that “all feasible measures have been taken to avoid or minimize [the environmental impact of the project]”, as required by §61 of MEPA.

### **Background**

Largely as a result of discharges of phosphorus-rich wastewater from the WWTF and the three other wastewater treatment facilities included in the Assabet River Consortium and the recycling of phosphorus from such wastewater that has settled on the bottom, the

Assabet suffers from severe eutrophication. The Assabet grows a thick and unnatural carpet of aquatic weeds and algae during the summer and fall that makes swimming unthinkable and boating unsavory and difficult, and causes the river to give off offensive sulfurous smells. The weeds and algae bring about dramatic swings in the water's oxygen concentrations from extreme highs to extreme lows, both of which are lethal to fish. As a result, the river fails by a wide margin to meet the Class B water quality standards designated for it by the Commonwealth. It has for many years been designated under Section 303(d) of the Clean Water Act as impaired for nutrients (primarily phosphorus) and for organic enrichment and low dissolved oxygen.

In order to address the Assabet's eutrophication problems, that Commonwealth conducted a phosphorus Total Maximum Daily Load (TMDL) analysis, completed in 2004, to determine the degree to which phosphorus discharged from the WWTF and the other treatment facilities in the Consortium and recycled from the bottom sediments must be reduced in order to achieve water quality standards. The TMDL requires warm weather phosphorus effluent limits from the WWTF and the other treatment facilities of 0.1 mg/l and a 90% reduction in the phosphorus flux from the bottom sediments. The TMDL acknowledges that, if, as is likely, a 90% reduction of the phosphorus flux from the bottom sediments proves not to be feasible, a substantially more stringent phosphorus effluent limitation would be necessary to achieve water quality standards.

Based on the TMDL, EPA and MADEP issued renewal NPDES permits imposing the 0.1 mg/l limit. These permits became final and effective in 2005 following settlement of appeals. In their April 28, 2005 letter to the four wastewater treatment facilities announcing the settlement, EPA and MADEP stated that the 0.1 mg/l limit "is an interim 'Phase 1' limit", and that "depending on whether sediment remediation can reduce phosphorus contributions enough to achieve water quality standards in the Assabet River, your facility may be required in the next permitting cycle to meet a more stringent 'Phase 2' limit by 2014". While CLF did not challenge these permits, they were frankly of questionable validity under current federal legal guidance on the need to ensure compliance with water quality standards.

### **An increase in the flow limit would violate the CWA**

In Massachusetts, NPDES permits are issued jointly by the EPA under the Clean Water Act and MADEP under the Massachusetts Clean Waters Act. Section 301(b)(1)(C) of the Clean Water Act states that any modified or new NPDES permit for the WWTF's proposed flow increase must contain "any [more stringent than technology-based] limitation necessary to meet" the Commonwealth's water quality standards, including its numeric and narrative criteria for water quality. 40 CFR §122.4(d) accordingly prohibits the issuance of any permit whose effluent limitations and other conditions "cannot ensure compliance with the applicable water quality requirements of all affected states" (emphasis added). Where, as here, a TMDL for a given pollutant has been approved by EPA, the EPA must set effluent limits for that pollutant "consistent with the assumptions and requirements" of such TMDL, 40 CFR §122.44(d)(1)(vii)(B).

Under 40 CFR §§122.4(d) and 122.4(i), an NPDES permit may be issued for a discharge into impaired waters only where it can be demonstrated that the discharge will not cause or contribute to a violation of water quality standards. Cost and technological considerations may not be considered in setting water quality-based limitations, In re Westborough and Westborough Treatment Plant Board, 10 E.A.D. 297, at 312 (EAB, 2002). The EPA has an independent duty to satisfy itself that these requirements will be met. It cannot rely on MADEP's certification of the permit under §401(a) of the Clean Water Act or any MADEP certification of the Plan under §61 of MEPA. In re City of Moscow, Idaho, 10 E.A.D. 135, 151 (EAB 2001); In re City of Marlborough, Massachusetts, Easterly Wastewater Treatment Facility, NPDES Appeal No. 04-13 (EAB 2005).

These are the criteria that EPA would be required to apply to any request for a flow increase in the WWTF's NPDES permit. These criteria are supplemented by the criteria set forth on page 8 MADEP's TMDL (cited in the WWTF's "Additional Information Related to Increased Flow to the Assabet River") that "any request to increase a discharge beyond currently permitted volumes would require supporting documentation satisfying MADEP's Antidegradation Policy that no other feasible alternative exists . . ."

The proposed 1.5 mgd increase in the WWTF's permitted discharge over the current 2.89 mgd would result in an increase of 1.3 pounds per day in the phosphorus loading from the WWTF. "Load" and "loading" is defined in 40 CFR §130.2(e) as "an amount of matter . . . that is introduced into a receiving water". The TMDL's conclusion that the 0.1 mg/l warm weather phosphorus limit would, combined with a 90% decrease in the flux from the bottom sediments, result in attainment of water quality standards was necessarily predicated on the maximum "load" or "loading" of phosphorus that would result from 2.89 mgd of discharge containing 0.10 mg/l of phosphorus, - 2.4 pounds per day. That is the maximum that the TMDL has determined that the Assabet can tolerate and meet water quality standards.

Based on the TMDL model analyses, the increase in the flow, and therefore in the total phosphorus load, would increase aquatic plant and algae growth in the Hudson impoundments by 3,000 kilograms, assuming a 90% reduction in phosphorus flux the sediments. If, as is likely, such reduction proves not to be feasible, the increase in such growth would be dramatically worse and would impact all the impoundments in the system.

### **The need for the additional capacity has been overstated**

Nearly half the proposed 1.51 mgd projected increase in the WWTF's wastewater flows would come from Northborough, which has projected future flows to be four times their current flows. These projections are based on a planning period of 35 years, a period which may exceed the design life of the WWTF's upgrade, rather than the more normal 20 years. They appear not to take into account possible water conservation measures. The huge increase in the projected flow also appears to assume that most new growth in the Town would be accommodated by expansion of the sewer system rather than rely on onsite septic systems. Sewers have their own adverse environmental impacts, including

the loss of groundwater recharge that would result from onsite systems and from infiltration/inflow, and stimulation of development in otherwise undevelopable areas, resulting in increases in impervious surfaces and loss of stormwater recharge.

CLF believes that the focus for many of the communities discharging into the Assabet and others water bodies covered by this TMDL, the wastewater management planning needs to be focused on *reducing* flows into the rivers, not increasing them. CLF appreciates your consideration of these comments. Please feel free to contact any of the undersigned should you have any questions.

Sincerely,

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Peter Shelley

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John L. Davenport

cc: Forsyth P. Kineon, Organization for the Assabet River  
Nancy Stevens, City of Marlborough  
Paul Blazer, Town of Hudson  
John Curran, Town of Maynard  
Barry Brenner, Town of Northborough  
Dan Morgado, Town of Shrewsbury  
Henry Danis, Town of Westborough  
David Pincombe, US EPA