



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Eastern Massachusetts National Wildlife Refuge Complex  
73 Weir Hill Road  
Sudbury, MA 01776-1420



August 13, 2008

Glenn Haas, Director  
Division of Watershed Management  
Massachusetts Department of Environmental Protection  
One Winter Street  
Boston, Massachusetts 02108

Stephen Perkins, Director  
Office of Ecosystem Protection  
U.S. Environmental Protection Agency  
1 Congress Street, Suite 1100  
Boston, Massachusetts 02114-2023

Subject: Draft NPDES Permit Modification Comments  
MA0100480 Marlborough Westerly Wastewater Treatment Plant

Dear Mr. Haas and Mr. Perkins,

The U.S. Fish and Wildlife Service (Service) appreciates the opportunity to comment on the above draft NPDES Permit Modification to allow an increase in discharge from the Marlborough Westerly wastewater treatment plant into the Assabet River. An increase in the amount of wastewater that can be discharged by the wastewater treatment plant is a concern to the Service. Later this month, we will be acquiring land directly on and extending into the Assabet River as an addition to the Assabet River National Wildlife Refuge (NWR).

Encompassing 3.5 square miles located within the towns of Hudson, Maynard, Stow and Sudbury, the large wetland complex and the contiguous forested areas found on the Assabet River NWR are important feeding and breeding areas for migratory birds. These lands and waters are part of the National Wildlife Refuge System, administered by the Service, and they are of national significance for fish and wildlife. Assabet River NWR is one of eight refuges within the Eastern Massachusetts NWR Complex.

It is important to the functioning of the Assabet River NWR, particularly its role as a refuge for migratory birds, that aquatic life in the river be protected and, where possible,

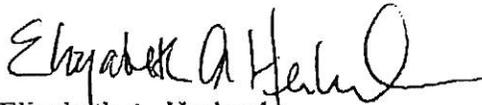
restored. We look forward to the Assabet River meeting its designated Class B water quality under the Massachusetts Surface Water Quality Standards. We are concerned that the proposed increase in discharge of treated effluent upstream of the Refuge will make it less likely that the Assabet River will meet those water quality standards.

Eutrophication of the river in Stow is severe. The modeling study of sediment phosphorus recycling (presented by CDM in Stow in November 2007) shows that this problem is likely to be more difficult to solve than anticipated. The nutrient load and concentration limits in the draft permit modification assume that the sediment phosphorus flux has been reduced by 90%. Since this has not occurred, a more conservative permitting of discharges from the wastewater treatment plants on the river would be appropriate rather than allowing increased discharge.

The higher discharge will also increase many of the unregulated pollutants which may affect the aquatic life, defined as a "native, naturally diverse, community of aquatic flora and fauna..." (314 CMR 4.02). The negative effects of wastewater on aquatic life, particularly through endocrine disruption, are becoming better understood and are a cause for concern.

I hope that these comments are useful and that the Massachusetts Department of Environmental Protection and the U.S. Environmental Protection Agency will ensure that the progress made on restoring water quality to the Assabet River will continue.

Sincerely,



Elizabeth A. Herland  
Project Leader

**TAKE PRIDE<sup>™</sup>  
IN AMERICA** 



## United States Department of the Interior

### NATIONAL PARK SERVICE

Northeast Regional Office  
15 State Street  
Boston, Massachusetts 02109-3572

August 13, 2008

Glenn Haas, Director  
Division of Watershed Management  
MA. Department of Environmental Protection  
1 Winter Street, 5<sup>th</sup> Floor  
Boston, MA 02108

Stephen S. Perkins, Director  
Office of Ecosystem Protection  
EPA, Region 1  
1 Congress Street  
Boston, MA 02114

Dear Mr. Haas and Mr. Perkins,

Thank you for the opportunity to comment on the recently issued draft NPDES permit modification for the City of Marlborough. The River Stewardship Council (RSC) is especially interested in this permit because it addresses the management of water quality upstream of the federally designated Wild and Scenic Sudbury, Assabet and Concord Rivers.

Twenty-nine miles of the Sudbury, Assabet and Concord Rivers have been nationally recognized as Wild and Scenic Rivers due to their "outstandingly remarkable resource values," including scenery, history, literature, recreation and ecology. One of the greatest threats to these resources is impaired water quality, especially due to high nutrient loads. Actions taken in the Assabet Consortium communities have a potentially significant effect downstream on the Assabet, and also on the Concord River which receives all of its flow. Both the Assabet and portions of the Concord suffer from eutrophication caused by excessive nutrients impacting scenic, recreational and ecological river resources. Additionally, Billerica, down-stream at the northern end of the wild and scenic segment, withdraws Concord River water to supply drinking water to the Town. It is for these reasons that the RSC has closely followed the development of a management strategy on the Assabet and commented on both the Comprehensive Wastewater Management Plan process as well as the NPDES permits for the wastewater discharges.

The NPS supports the current permit issued by EPA and DEP which recognizes the serious water quality issues facing the Assabet. After extensive study and discussion, the managing agencies crafted a permit that begins to address the Assabet's severe water quality problems. In the Assabet River phosphorus TMDL, the agencies recognized that the point source phosphorus limits of 0.1 mg/L was not enough to fully attain water quality standards and so set a direction for continuing to reduce phosphorus – possibly through removal of sediments, if feasible, or through lower phosphorus limits at the wastewater treatment plants.

This permit modification for the City of Marlborough, including an increase of flow, negates all of the good work and effort that was included in the current permit, and should not be approved. It contradicts the conclusions of the Assabet TMDL which embrace current permitted flows. Additionally, the City of Marlborough has not considered all of the feasible alternatives, and has not met the requirements of the antidegradation rules.

Other means to decrease wastewater flows must be fully considered now, before the increase flow is permitted. The evaluation of water conservation and water reuse options by the Office of Technology Assessment should be

completed now, and recommendations of that assessment implemented before any flow increase is even considered. The same is true of the results of the COE study which hopefully will also contain recommendations for improvements. Aggressively addressing inflow and infiltration may also decrease flow to the plant.

Groundwater discharge of treated wastewater is another alternative that has not been adequately investigated. Nor have package treatment plants been considered as a way to decentralize the waste flow and reintroduce it to the ground. Many development projects in nearby communities are using package plants.

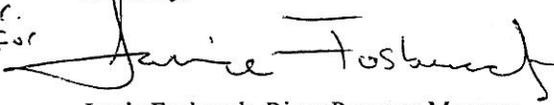
Preliminary results of the COE study indicate that phosphorus discharged in the winter months may not move through the system as was assumed, and may contribute significantly to the phosphorus flux between the sediment and water column. DEP and EPA must establish winter phosphorus levels in the permit below 1 mg/l.

This permit modification sets an unwanted precedent among all of the communities on the Assabet, as well as other communities in the watershed. There are a number of towns with plants nearing capacity. These potential increased flows will create a cumulative impact on already degraded water quality.

These important wastewater decisions made in Marlborough have far reaching impacts on the downstream health and character of the Assabet, as well as the Concord River. So much good progress has been made to bring the Assabet River into compliance with water quality standards, EPA and DEP should continue to support the restoration of these great river resources.

Thank you for the opportunity to comment.

Sincerely,

Jr.  
For  


Jamie Fosburgh, River Program Manager



Town of Stow  
**BOARD OF SELECTMEN**

Stow Town Building  
380 Great Road

Stow, Massachusetts 01775

(978) 897-4515 selectmen@stow-ma.gov Fax (978) 897-4631

August 7, 2008

Stephen S. Perkins, Director  
U. S. EPA  
Office of Ecosystem Protection (CMP), Region 1  
1 Congress Street, Suite 1100  
Boston, MA 02114-2023

Glenn Haas, Director  
Division of Watershed Management  
Mass. Department of Environmental Protection  
1 Winter Street  
Boston, MA 02108

RE: Comments on NPDES Permit MA0100480 Draft Permit Modification

Dear Mr. Perkins and Mr. Haas,

The Assabet River flows through the Town of Stow; approximately 6 miles of the 30-mile long river are located in Stow. The river, federally designated in part as a Wild and Scenic River, is used for recreation, agriculture, and feeds downstream public water supplies, and its floodplain and wetlands provide numerous functions that contribute to the town's ecological and land use values. The Stow Board of Selectmen and the Conservation Commission (collectively the "Town") are concerned that the proposed permit modification for the Marlborough Westerly Wastewater Treatment Facility will contribute to continued degradation of the Assabet River's water quality, hinder progress and complicate current efforts to achieve the goals of the Total Maximum Daily Load Report, and do not meet the State and Federal anti-degradation policies.

Stow relies on its natural resources for a significant part of its economic base; including agriculture, agretourism, golfing, the Assabet River National Wildlife Refuge, the Assabet River Rail Trail, which abuts the river, and river-based recreation. All of these factors are influenced by the river, from aesthetics to irrigation and operations.

*Background*

The river is the subject of significant study due to its eutrophic conditions, especially in the slow moving reaches and impoundments associated with dams. The MA Department

of Environmental Protection published the *Assabet River Total Maximum Daily Load for Phosphorus, Report No: MA82B-01-2004-01* (TMDL) in 2004, which discusses the inability of the river to meet standards for primary and secondary contact recreation as a result of high phosphorus loading and resulting excessive accumulation of aquatic plants. The study recommends a reduction in nutrients in municipal wastewater discharges; improvement of stream flow in the tributaries by restoring a water balance in the watershed; and reduction of nutrient contributions/releases from impounded sediments (*i.e.*, phosphorus in sediment which is re-circulated into the water column). Stow is particularly affected by current conditions, as the Ben Smith Dam in Maynard results in an impoundment that affects some 4 miles of the stretch of river in Stow. The level of eutrophication within this stretch of river is very high and significantly interferes with any form of recreation.

Stow residents seeking to use and enjoy the Assabet as an aesthetic and recreational resource, and wildlife seeking to live and feed in and along the river, are prohibited from doing so by the eutrophic condition of the River in the summer and early fall. This condition is characterized by carpets of duckweed and other nuisance plant growth atop the River's surface, malodorous in decay, as well as rooted nuisance plant growth, degrading to wildlife habitat and detrimental to (where not preclusive of) primary and secondary contact recreation. Kayaking, canoeing, and fishing are compromised during the summer and early fall - precisely those seasons when residents would most enjoy these and other recreational activities. It has been clearly established that eutrophication in the Assabet results from high phosphorus loading from the WWTFs, several of which discharge upstream from Stow.<sup>1</sup> For obvious reasons, the Town of Stow is powerless to halt the flow of nutrient-loaded effluent into its portion of the Assabet River. The Town relies on - *and is entitled to rely on* EPA and MADEP, in issuing discharge permits, to impose conditions that ensure compliance with state water quality standards now being violated.

The U. S Army Corps of Engineers has been studying the Assabet River and recently completed the *Assabet River Sediment and Dam Removal Study: Modeling Report*<sup>2</sup>. The study evaluates the feasibility of removing ninety percent of sediment phosphorus flux through a combination of dredging sediment, removing some or all of the 6 mill dams along the river, or both. The Town of Stow Conservation Commission held a very well-attended public meeting on November 5, 2007 at which the U.S. Army Corps of Engineers, New England District and its consultant, Camp Dresser & McKee (CDM), presented the initial findings of the Draft Modeling Report for the Assabet River Sediment and Dam Removal Study. The purpose of the study is to review alternative approaches to achieve a 90% reduction in phosphorus reduction in river sediment.

The two alternatives evaluated include dredging of river sediment and removal of dams along the river. As part of the presentation, the report noted that winter discharge from

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<sup>1</sup> See Assabet River Total Maximum Daily Load for Phosphorus, Report No. MA82B-01-2004-01 (TMDL), Executive Summary at 5-9.

<sup>2</sup> Assabet River Sediment and Dam Removal Study: Modeling Report. June 2008. Camp Dresser & McKee.

the WWTFs affects phosphorus flux the following summer, specifically, that phosphorus introduced in the winter can contribute over 50% of the summer phosphorus flux. In addition it found that a reduction in winter phosphorus loading from point sources, including the WWTFs, could reduce phosphorus sediment flux loading.

The full study is not complete, however the Modeling Report issued in June 2008 concluded that: “no alternative or combination of alternatives is projected to result in a 90 percent reduction in phosphorus flux.”

“Results of this modeling study suggest that the most beneficial improvements to Assabet River water quality can be achieved through planned WWTF improvements, dam removal, and consideration of lower winter effluent limits than currently planned.”

The Executive Summary summarized its findings, in part, as follows:

- “Remove Ben Smith dam and if possible, Gleasondale and Hudson/Rt 85 dams. Remove sediment behind dams as part of dam removal to prevent sediment from moving downstream subsequent to dam removal.
- Lower winter WWTP Phosphorus discharge below 1.0 mg/l
- Results suggest that dredging or sediment removal is not an effective alternative in reducing sediment flux. Dredging/sediment removal is only proposed in conjunction with dam removal to prevent the redistribution of accumulated sediment.
- It may also be beneficial to test the impacts of lower winter effluent phosphorus limits in the near term, since this study suggests this winter limits significantly impact sediment phosphorus flux rates in the following growing season.”<sup>3</sup>

The Town of Stow notes that removal of these dams is not a simple endeavor, nor is dam removal, if approved, likely to occur relatively soon. The Town looks forward to reviewing further studies, and will participate in the review and permitting process associated with proposed dam removals.

In addition to following the progress of the ACOE study, the Stow Conservation Commission reviewed and commented on the Environmental Impact Reports prepared for the Assabet River Consortium (EOEEA #12348) and raised concerns regarding the proposed increases in discharge from the Marlborough Wastewater Treatment Facility. Our concerns expressed in those letters are renewed in this letter. One of our comments was that the permit conditions consider an amendment to Marlborough’s permit conditions to reduce its winter phosphorus limits to equal its summer limits (winter: 1.0 mg, summer 0.1 mg)<sup>4</sup>.

In December 2007 the Town Board of Selectmen request that the Town be able to participate in the Assabet River Consortium in order to follow the progress of the study

<sup>3</sup> Modeling Report, pages ES-1 and -2.

<sup>4</sup> Letter from Stow Conservation Commission to EEOEA, November 26, 2007

and the progress of the consortium communities in managing their waste water treatment facilities (WWTF)<sup>5</sup>. That request was authorized and Stow will be sending a representative to attend the Consortium meetings.

*Concerns regarding the Draft NPDES Permit Modification of July 9, 2008*

The Town is concerned that the proposed permit modification to allow the City of Marlborough to discharge an additional 1.26 mgd of effluent from the Marlborough Westerly WWTF to the Assabet River will further aggravate the existing polluted condition of the river and add to the complexities in efforts to meet state water quality standards. The proposed discharge is an increase of approximately 40% over currently permitted discharge, much of this increase being growth in the allocation to Northborough.

The DEP TMDL report states: "Based upon the modeling results current permitted flows will be allowed. However, any request to increase a discharge beyond currently permitted volumes would require supporting documentation satisfying DEP's Antidegradation Policy that no other feasible alternative exists including, but not limited to, the discharge of additional treated effluent to groundwater to help restore tributary flows." (p. 8)

As was written in the Town's Conservation Commission comments on the Draft and Final EIR<sup>6</sup>, the discussion of alternatives to the proposed discharge needs to be thorough and accurate. In addition, given the potential that the cost for treating the proposed increased volume to the proposed summer standard of 0.07 mg/l<sup>7</sup>, the Town questions whether some of the alternatives originally dismissed in the Draft and Final EIRs as too expensive may now be feasible and may need to be re-evaluated. Further, as this is a Phase I proposed limit, the Town is concerned that Phase II limits may be stricter and more expensive. Depending on the results of efforts to reduce Phosphorus flux (including the results of the ACOE study), Phase II limits may in fact be more stringent.

The Town is therefore concerned that the proposed increase, without an accurate and updated evaluation of alternatives, may violate the State and Federal Antidegradation Policies.

In the EOEAs Secretary's Certificate (12/03/07) on the final CWMPs for the Assabet Consortium, Secretary Ian Bowles reiterated the concern regarding an evaluation of alternatives. The Certificate also stated that the City of Marlborough will be required to satisfactorily demonstrate that an increase in flow "would not cause or contribute to" a violation of water quality standards. As stated above, it is the Town's

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<sup>5</sup> The Assabet Consortium communities include Hudson, Marlborough, Maynard, Northborough (discharges to Marlborough Westerly plant), Shrewsbury (discharges to Westborough plant), and Westborough.

<sup>6</sup> Town of Stow Conservation Commission letters dated June 21 and November 27, 2007

<sup>7</sup> Third page of Draft Statement of Basis states "In order to achieve these mass limits as the discharge flow increases, the facility must achieve ever-lower concentrations of total phosphorus, down to 0.07 mg/l to achieve the summer limits at the new design flow and 0.7 mu/l to achieve the winter limits at the new design flow."

concern that the proposed permit modification will complicate current efforts to meet water quality standards in the Assabet River.

Alternatives include water conservation, infiltration and inflow (I/I) removal, groundwater recharge, and water use alternatives. In addition, as stated in the Conservation Commission's June 21, 2007 letter on the Draft EIR, "The SCC questions the planning and projections behind the requested increases in flow and nutrient loading. Land use planning should be a part of any municipal study that plans continued and increased reliance on centralized Waste Water Treatment Plants (WWTP). We recognize that a Needs Analysis was conducted in 2001, however, in the current climate of increased sustainability and low impact development, combined with the need to maintain stream base flows, ground water recharge, and maintenance of overall watershed health, it is difficult to understand the apparent narrow approach to expansion of centralized waste water treatment. The need for the proposed increases in discharge and nutrient loading is based on projected population increases, based on 2001 zoning and land use practices."

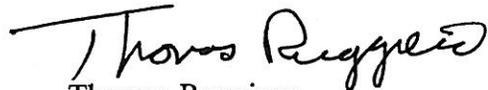
We are aware that OAR is preparing a detailed analysis of the specific proposed conditions of the draft permit modifications. We concur with many of the comments proposed by OAR, including that regulatory highest and best practicable treatment be considered for winter phosphorus discharge in the issuance of any permit modification.

Further, as stated in the Conservation Commission's correspondence regarding the Draft and Final EIR's, operators of other WWTFs along the river are making an effort to comply with permit conditions. Given that there is a consortium to evaluate discharges and achieve compliance, a change in this permit may affect approaches by the other WWTFs.

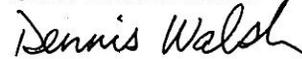
Thank you for the opportunity to provide these comments.

Sincerely,

Stow Board of Selectmen

  
Thomas Ruggiero  
Chair

Stow Conservation Commission

  
Dennis Walsh  
Vice Chair

cc: City of Marlborough  
Town of Northborough  
Organization for the Assabet River  
Sudbury Assabet and Concord Wild & Scenic River Stewardship Council



Charles River Watershed Association



Merrimack River Watershed Council



HVA



NSRWA  
thenrwa.org



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Protect and Restore the Nature of Massachusetts



FRIENDS OF THE BLUE HILLS  
PROTECT & PRESERVE



Environmental League of Massachusetts



Green River Watershed Association



IPSWICH RIVER WATERSHED ASSOCIATION  
Connecting Communities from Source to Sea

By Fax and Mail

August 13, 2008

Stephen S. Perkins, Director  
US Environmental Protection Agency  
Region 1, Office of Ecosystem Protection  
1 Congress Street, Suite 1100  
Boston MA 02114-2023

Glenn Haas, Director  
Division of Watershed Management  
Mass. Dept. of Environmental Protection  
1 Winter Street  
Boston MA 02108

**Re: MA0100480 Marlborough Westerly Wastewater Treatment Plant  
Draft NPDES Permit Modification**

Dear Mr. Perkins and Mr. Haas:

As members of the environmental community concerned with the health and long-term sustainability of the Commonwealth's water resources, the undersigned groups believe it is important to comment on the Draft NPDES Permit Modification for the Marlborough Westerly

wastewater treatment facility (WWTF) issued July 9, 2008. Rather than permitting increased wastewater discharges to the Assabet River, we request that U.S. EPA and MassDEP first require analysis and implementation of feasible alternatives. Only after all feasible alternatives have been exhausted should an increase in effluent flow be permitted.

By authorizing an increase in the quantity of effluent discharged by the Marlborough Westerly plant the draft Permit Modification will undermine progress toward meeting water quality standards and the Assabet River's designated uses. Surface waters across the state are increasingly stressed by wastewater and stormwater pollution; this is exacerbated by disruption of the water balance and loss of base flow caused by impervious surfaces, lack of recharge and groundwater withdrawals. We can expect that water bodies like the Assabet suffering from severe eutrophication will only get worse as climate change and development result in diminished flow and warmer water temperatures in summer with flashier floods, unless the Clean Water Act and Mass. water quality regulations (314 CMR 4.00) are wholeheartedly implemented.

The EPA-approved Nutrient Total Maximum Daily Load (TMDL) issued by MassDEP in 2004 for the Assabet clearly identifies nutrients discharged from wastewater treatment plants as the main cause and sets forth a plan for meeting water quality standards. The TMDL study, *Assabet River Total Maximum Daily Load for Total Phosphorus*, EOE, Report no.: MA82B-01-2004-01, demonstrates that even under the *current* wastewater treatment plant load allocations, the Assabet River will fail to meet water quality standards until phosphorus recycling from the river sediment is reduced by 90%. By allowing an increase in wastewater discharge before the sediment phosphorus recycling has been reduced, or water quality standards have been met, the draft Permit Modification will undermine the implementation of the TMDL and violate anti-degradation policies under the state and federal Clean Water Acts.

The draft Permit Modification would increase the discharge limit of the Marlborough Westerly WWTF from 2.89 mgd to 4.15 mgd, or a **40% increase** in wastewater discharged by the facility to the Assabet River. The main source of this increase would be the Town of Northborough. Northborough's Comprehensive Wastewater Management Plan (CWMP) shows that this would be a 103% increase over 2006 wastewater flows. Many of our groups in previous comments on the CWMPs of the Assabet Consortium, and in particular those of Marlborough and Northborough, stated that an increase in flow should not be permitted given the fact that there were existing alternatives that would protect the water quality of the Assabet, help to achieve designated uses, and help to restore the water balance in the watershed. (June 22, 2007 comments on DEIR/draft CWMPs). Water balance is essential for maintaining streamflow, diluting wastewater flows, and protecting wildlife habitat and public drinking water supplies.

The 2004 TMDL (p. 8) states that

Based upon the modeling results current permitted flows will be allowed. However, any request to increase a discharge beyond currently permitted volumes would require supporting documentation satisfying DEP's Antidegradation Policy that no other feasible alternative exists including, but not limited to, the discharge of additional treated effluent to groundwater to help restore tributary flows.

As documented in the Marlborough and Northborough CWMPs, there are feasible alternatives to permitting a 40% increase in effluent discharge. It is our understanding that a groundwater discharge in Northborough on land already purchased for that purpose is a practical alternative. Decentralized package plants with local groundwater discharge are being installed and in operation throughout the watershed in many major development projects. MassDEP, recognizing the importance of wastewater treatment and local infiltration, is promoting this approach as reflected in the proposed changes to its groundwater discharge regulations. Reduced wastewater generation is also a highly cost-effective alternative, and Northborough in particular could reduce infiltration and inflow, promote water reuse by businesses and industry, reduce household water consumption through incentives -- especially for residential retrofits for low water use toilets and fixtures,-- and utilize alternatives to planned sewer system extensions. These options are actively being promoted by the Commonwealth, and there is considerable technical support available to municipalities to develop the relevant bylaws, policies, and programs.

The draft Permit Modification fails to comply with the Secretary's Certificate (12/03/07) at p. 9 on the final CWMPs for the Assabet Consortium, which states that "As part of the NPDES review process, the City of Marlborough will also be required to satisfactorily demonstrate to EPA and MassDEP that the proposed increase of the City's discharge flow limits would be in compliance with applicable water quality requirements for the Assabet River, would not cause or contribute to a violation of water quality standards, and that no feasible alternatives exist to the City's proposed wastewater flow increase, as described in the FEIR." We understand there has been no demonstration that the increase will not cause or contribute to water quality standards' violations and conditions in the draft permit modification regarding further studies fails to ensure that the alternatives have been thoroughly evaluated.

The draft permit modification fails to protect the river's existing and designated uses. Although the draft permit regulates loads of certain pollutants, many that are not regulated. An increase in effluent discharge will necessarily result in an increased discharge of pollutants not removed by the WWTF. This is of particular concern given that pharmaceuticals and personal care products are generally not removed by standard wastewater treatment. Recent studies indicate that the likely effect of municipal wastewater discharges on aquatic life include endocrine disruption and impacts on reproduction. Since the Assabet flows into a designated public drinking water supply, the Concord River, this is a matter of concern for human health as well.

Given that many rivers in the Commonwealth receive point-source nutrient pollution and suffer from low streamflow, the proposed Permit Modification will set a poor precedent that flies in the face of recent efforts by state decision-makers to "keep water local" and it will undermine attainment of surface water quality statewide. We hope the draft permit modification will be revised to better protect the environment.

Sincerely,

Margaret Van Deusen,  
Deputy Director and General Counsel  
**Charles River Watershed Association**

Chris Kilian, Vice President and Director  
Clean Water Healthy Forests Program  
**Conservation Law Foundation**

Mettie Whipple, Executive Director  
**Eel River Watershed Association**

Nancy Goodman, Vice President for Policy  
**Environmental League of Massachusetts**

Judy Lehrer Jacobs, Executive Director  
**Friends of the Blue Hills**

Shepley W. Evans, Director  
**Housatonic Valley Association**

Kerry Mackin, Executive Director  
**Ipswich River Watershed Association**

Pine duBois, Executive Director  
**Jones River Watershed Association**

Linda Mack., Executive Director  
**Massachusetts Association of  
Conservation Commissions**

E. Heidi Ricci, Senior Policy Analyst  
**Mass Audubon**

James McCaffrey, Director  
**Massachusetts Sierra Club**

Christine Tabak, Executive Director  
**Merrimack River Watershed Council,  
Inc.**

John R. Reinhardt, President,  
**Mystic River Watershed Association**

Elizabeth Ainsley Campbell, Executive  
Director  
**Nashua River Watershed Association**

Stephen Pearlman, Advocacy Director  
**Neponset River Watershed Association**

Samantha Woods, Executive Director  
**North and South Rivers Watershed  
Association**

Frederica Gillespie, Executive Director  
**Sudbury River Watershed Organization**

Mary S. Booth, Executive Director  
**Water Supply Citizens' Advisory  
Committee**

cc: Ian Bowles  
David Cash  
Philip Griffiths  
Laurie Burt  
Lucy Edmondson



# CONSERVATION LAW FOUNDATION

August 12, 2008

Stephen S. Perkins, Director  
Office of Ecosystem Protection  
U.S. Environmental Protection Agency – Region 1  
1 Congress Street, Suite 1100  
Boston, MA 02114-2023

Glenn Haas, Director  
Division of Watershed Management  
Massachusetts Department of Environmental Protection  
1 Winter Street  
Boston, MA 02108

Re: Comments on draft Modification (the "Modification") of NPDES Permit No. MA0100480 issued to the City of Marlborough, Massachusetts authorizing discharges into the Assabet River from its Westcrly Waste Treatment Works (the "WWTW")

Dear Messrs. Perkins and Haas:

The Conservation Law Foundation ("CLF") submits the following comments on the above referenced draft Modification increasing the WWTW's average annual flow limit from 2.89 MGD to 4.15 MGD.

We commend the Region for including mass limitations on phosphorus that maximize the total amount of phosphorus that may be discharged under the Permit at the TMDL's wasteload allocation, thus requiring a compensating decrease in the permitted phosphorus concentration for any flows in excess of the currently permitted maximum of 2.89 MGD. (This responds to one of the principal comments made in our June 22 and November 26, 2007 letters commenting on the Assabet River Consortium's draft and final Comprehensive Wastewater Management Plans ("CWMPs")). For the same reason, however, similar mass limitations on ammonia-nitrogen are required. (The draft Modification only requires reporting of average monthly and weekly pounds per day of ammonia-nitrogen, without any limits thereon).

CLF sought leave to intervene<sup>1</sup> in connection with the petitions to the Environmental Appeals Board for review of the current Permit<sup>2</sup> by the Organization for the Assabet River ("OAR")

<sup>1</sup> Although CLF's request for intervenor status was denied, it was granted leave to, and did, file an *amicus* brief

<sup>2</sup> The petition also included identical permits issued to the City of Marlborough and the Town of Maynard.

62 Summer Street, Boston, Massachusetts 02110-1016 • Phone: 617-350-0990 • Fax: 617-350-4030 • www.clf.org

MAINE: 14 Main Street, Brunswick, Maine 04011-2026 • 207-729-7733 • Fax: 207-729-7373

NEW HAMPSHIRE: 27 North Main Street, Concord, New Hampshire 03301-4930 • 603-225-3060 • Fax: 603-225-3059

RHODE ISLAND: 55 Dorrance Street, Providence, Rhode Island 02903 • 401-351-1102 • Fax: 401-351-1130

VERMONT: 15 East State Street, Suite 4, Montpelier, Vermont 05602-3010 • 802-223-5992 • Fax: 802-223-0060

## CONSERVATION LAW FOUNDATION

primarily on the ground that, given the TMDL's conclusions that a 0.1 mg/l summertime phosphorus limit would not result in attainment of the required water quality standards in the phosphorus-impaired receiving waters without a 90% reduction in the flux from the river bottom sediments and that substantially lower concentration limits would be required if the flux were reduced by only 75%, the Permit did not meet the requirements of section 301(b)(1)(C) of the Clean Water Act and 40 CFR §122.4(d) that its conditions "ensure compliance with the applicable water quality requirements of all affected States" (emphasis added). As we noted in our letters commenting on the CWMPs, cost and technological considerations may not be considered in setting water quality-based limitations in NPDES permits (Westborough and Westborough Treatment Plant Board, 10 E.A.D. 297, at 312 (EAB, 2002)). We continue to believe that the current Permit fails to meet these requirements and that, had the petitions for review not been withdrawn, it would have suffered the same fate at the EAB as the permit for Marlborough's other wastewater treatment plant, In re City of Marlborough, Massachusetts, Easterly Wastewater Treatment Facility, 12 E.A.D. \_\_\_\_\_ (EAB, 2005).

The Region sought to address this issue by informing Marlborough and the other permittees in a letter dated April 23, 2006, - after the appeals had been settled and dismissed, - 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".

The recently completed Army Corps of Engineers Assabet River Sediment and Dam Removal Study makes it even more clear that a mere warning that an unspecified more stringent limit "may" be required to be achieved by 2014, - four years after the expiration of the current Permit, - is not justifiable and does not meet the requirements of the Clean Water Act cited above. Certainly, it can not possibly be demonstrated that, at the Permit's current phosphorus effluent limits, the proposed flow increase will not "cause, have the reasonable potential to cause, or contribute to an excursion above [Massachusetts'] water quality standard, including . . . narrative criteria for water quality", as required by 40 CFR §122.44(d)(1)(i).

The June, 2008 Camp Dresser & McKee Modeling Report, included in the Army Corps Study, now makes it abundantly clear that the likelihood of the 90% reduction in the flux from the river bottom sediments on which the Permit's April - October 2.4 lbs/day - 0.1 mg/l phosphorus limitations were predicated is virtually nil<sup>3</sup>. The Report also concludes that a reduction in the November - March limits below the current 24 lbs/day - 1.0 mg/l will be required for any significant reduction in the phosphorus flux. Since "dredging or sediment removal is not an effective alternative in reducing sediment flux"<sup>4</sup>, and since the likelihood of removal of the Ben Smith and other dams in the foreseeable future is remote, no other means for reducing the flux are available.

<sup>3</sup> "Of the alternatives evaluated in this study, no alternative or combination of alternatives is projected to result in a 90 percent reduction in phosphorus flux." Furthermore, one of the alternatives, - removal of the Ben Smith dam, - may no longer be a possibility due to the owner's proposal to use the dam for a hydro electric power generation.

<sup>4</sup> Modeling Report, pg 6-8.

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The two conditions to the increase in the flow limit contained in the Modification, - that the City "participate" in a comprehensive evaluation of water conservation and/or reuse (with no reduction in the flow limit or other permit changes based on its recommendations), and that it agree to "work with the MassDEP and EPA . . . to further an understanding of the results of the Corps' analysis of improvements that could be made to the Assabet River's water quality through addressing sediments and/or dam removal/modifications", - are little, if any, better in meeting the requirements of the Clean Water Act than the mild admonition in the Region's April 2006 letter about possible more stringent limits in future permits. The Region's Statement of Basis attempts to justify these conditions as having been included "to account for the current uncertainty regarding future permit limits and the potential that future phosphorus limits may be more stringent". But, given the Modeling Report, there clearly is no longer any significant "uncertainty" that a 90% reduction in the sediment flux is not going to happen and that substantially more stringent growing season and wintertime phosphorus effluent limitations will be required in order to "ensure" compliance with water quality standards as required by the Act.

As noted in the TMDL, under Massachusetts' anti-degradation rule authorization of any increase in the Permit's flow limits requires a demonstration by the City that, among other things, "no less environmentally damaging alternative site for the activity, source for the disposal, or method of elimination of the discharge is reasonably available or feasible" (314 C.M.R. 4.04(4)(2)). As noted in OAR's comments on the CWMPs, several such alternatives do exist.

We accordingly believe that the Modification cannot be issued in compliance with the Clean Water Act without specific, substantially reduced growing season and winter mass and concentration effluent limits for phosphorus, to be achieved in accordance with a reasonable compliance schedule commencing with the effective date of the Modification rather than with the expiration of the current Permit. The winter limit should be no higher than 0.2 mg/l, MA DEP's official "highest and best practical treatment" standard as required by 314 C.M.R. 4.04(5), and the growing season limit should be in the range of 0.02 mg/l, a level that has been achieved at other WWTPs<sup>5</sup>. In addition, as noted above, specific mass limitations for ammonia-nitrogen consistent with the TMDL should be included in the Modification.

Very truly yours,



John L. Davenport

<sup>5</sup> The Syracuse, NY wastewater treatment plant discharging into Lake Onondaga has a year-round total phosphorus limit of 0.02 mg/l, effective in December 2012.