

DEPARTMENT OF ENVIRONMENTAL PROTECTION

In re: City of Marlborough Westerly  
Wastewater Treatment Facility

NPDES Permit No. MA0100480

**REQUEST FOR ADJUDICATORY HEARING**

**INTRODUCTION**

Pursuant to 310 CMR 2.08, the Organization for the Assabet (“OAR”), and eleven citizens listed on Attachment A (collectively “OAR”) hereby request an adjudicatory hearing for NPDES Permit No. MA0100480 (“Permit”), which was jointly issued to the City of Marlborough (“Permittee”) on May 26, 2005, by the United States Environmental Protection Agency (“EPA”) and the Massachusetts Department of Environmental Protection (“DEP”) (attached hereto as Exhibit B). OAR also requests an adjudicatory hearing to review the Water Quality Certification that accompanies the Permit.

OAR asserts that certain conditions included in the Permit, and other conditions that EPA and DEP either omitted or removed from the Permit, violate the applicable requirements of the Federal Clean Water Act, 33 U.S.C. § 1251 *et seq.* (“CWA”), the Massachusetts Clean Water Act, M.G.L.c.21, § 26 *et seq.*, (“Act”) and the regulations thereunder. These conditions pertain primarily to the discharge of phosphorus and metals from the Marlborough Westerly Wastewater Treatment Facility (the “Facility”). OAR alleges that the Permit allows the Permittee to continue discharging phosphorus at levels that cause severe eutrophication of the Assabet River and thereby violate state water quality standards.

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## **FACTUAL BACKGROUND**

### *The Organization for the Assabet River (OAR)*

OAR is a private non-profit watershed organization established in 1986 to protect, preserve, and enhance the natural and recreational features of the Assabet River, its tributaries and watershed. OAR currently has over 1,000 members and operates a successful EPA-approved volunteer water quality and stream flow monitoring program, a large-scale volunteer annual river clean-up, and a variety of educational workshops, canoe trips and other activities designed to foster enjoyment and good stewardship of the river. More information about the organization may be found on OAR's website at [www.assabetriver.org](http://www.assabetriver.org).

### *The Assabet River*

The Assabet River rises in Westborough and flows northeast for 31 miles through the city of Marlborough and the towns of Northborough, Berlin, Hudson, Stow, Maynard, Acton and Concord before joining the Sudbury River to form the Concord River, which empties into the Merrimack River, and eventually, the Atlantic Ocean. The Assabet drains a 178-square mile watershed, home to 177,000 residents. After decades of neglect, the Assabet began to come back to life in the late 1980's, when wastewater treatment facilities ceased discharging raw sewage into the river. Residents have since discovered the river's recreational potential, and in 1999, the Assabet, along with the Sudbury and Concord Rivers, was added to the nation's federal Wild and Scenic River system. As the river's popularity as a recreational resource has grown, area residents have become increasingly active in its stewardship, as evidenced by the growth of OAR's annual river cleanup – our most recent cleanup attracted 260 participants in 2003. A fruitful collaboration between OAR and volunteers and municipal staff from Westborough, Marlborough, Northborough, and Hudson has produced the Upper Assabet Riverway Plan, a habitat study of the Upper Assabet, and a popular 2004 pocket recreation guide (map) to the

Assabet River. In addition, recently-created public boat launches in Marlborough, Northborough, and Acton testify to the river's value to these communities as a recreational resource.

Yet much of the Assabet still suffers each summer and early fall from severe eutrophication – excessive nuisance plant growth, bad odors, and degraded wildlife habitat and recreation, as a result of an overload of nutrients from the wastewater treatment plants that discharge to the river. The Assabet does not yet meet the applicable state water quality standards for class B waterways. The current degraded condition of the River – and its causes—are well established in the Assabet River Total Maximum Daily Load for Phosphorus, Report No: MA82B-01-2004-01 (“TMDL”). The study states as follows:

“The Assabet River is an effluent dominated stream, receiving the treated wastewater discharges from four major municipal publicly owned treatment works and three minor facilities.” (TMDL, p. 4)

“The river has been listed since 1998 on the Massachusetts 303d list and the Massachusetts 2002 Integrated List of Waters as impaired primarily for Nutrients and for Organic Enrichment/Low Dissolved Oxygen. These pollutants and stressors are indicators of a nutrient enriched, or eutrophied system. In freshwater, the primary nutrient known to accelerate eutrophication is phosphorous.” (TMDL, p. 15)

“The field investigation confirmed that the Assabet River receives an excess of the nutrients phosphorus and nitrogen, resulting in nutrient saturation and excessive growth of aquatic vegetation.” (TMDL, p. 15)

“Due to the high phosphorus loading from the four major POTWs and the effects of the impoundments, the Assabet River is experiencing abundant rooted macrophyte growth and frequent excessive accumulations of Lemna species (duckweed) which often cover the river's surface, particularly in the slow moving reaches, embayments, and impoundments. Decay of dying duckweed causes odors and violations of dissolved oxygen standards. Excessive growths of both floating and rooted macrophytes are detrimental to primary and secondary contact recreation. (TMDL, pp. 15-16)

“The most consistent sources of phosphorus loading to the Assabet River are the four major POTWs in Westborough, Marlborough, Hudson and Maynard. While non-point sources must be considered, the seasonality of the eutrophication problem, as manifested by nuisance aquatic plant growth, is most directly related to the presently high loadings of phosphorus from the POTWs combined with limited inflow from groundwater during the natural growing season for aquatic vegetation. “ (TMDL, p. 19)

### *The Permit*

This Permit, and substantially similar ones issued to three other POTWs which discharge their wastewater into the river, attempt to address the existing and future eutrophication problem as follows. For the April-October season, the Permit requires the Permittee to meet a 0.1 mg/l total phosphorous limit no later than fifty-four months from the date of the Permit (approximately April 2010). From November through March, the limit is 1.0 mg/l total phosphorus and must be met within one year of the date of the Permit, or approximately November 2006.

Accompanying the Permit is a Memorandum of Understanding (MOU) executed by the DEP and the Assabet River Consortium (six municipalities which utilize the four POTWs). The MOU calls upon the Consortium municipalities to contribute funds for a study. While the MOU does not identify the nature and purpose of the study, the EPA Response to Comments issued May 2005 with the Final Permits (“Response to Comments”) indicates that the study is intended to assess the feasibility of removing ninety percent of sediment phosphorus flux (*i.e.*, phosphorus in sediment which is re-circulated in the water column). This ninety percent removal goal is derived from the TMDL study, which indicates that a 0.1 mg/l phosphorus discharge limit combined with ninety percent removal of phosphorus flux will achieve water quality standards.

The Response to Comments hints that if the ninety percent flux reduction is not attained, that the POTWs may face more stringent limits in the future. However, the Permit itself does not mandate more stringent limits. Indeed, the Permit does not even mandate the study or a ninety percent phosphorus flux removal. The Permit also does not require that the technology adopted by the municipalities to meet the 0.1 mg/L limit be

“scalable” in the event that the ninety percent removal is not achieved and the discharge limits are made more stringent.

Also accompanying the Permit is a Water Quality Certification which purports to certify that the Permit conditions are sufficient to comply with state water quality standards.

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### **JURISDICTIONAL BASIS FOR THE REQUEST**

OAR submitted a Motion to Intervene in the permitting process as well as comments prepared by OAR staff (“OAR Comments”) in a letter dated July 28, 2004. OAR’s motion and comments are attached as Exhibit C, and are incorporated by reference herein.

OAR, its members, and the eleven citizens are aggrieved by the Permit because the Permit directly conflicts with OAR’s primary goal of a clean and healthy Assabet River. Due to the phosphorus discharges allowed by this Permit and companion permits for three other major POTWs, the river will continue to suffer from eutrophication, and OAR and its members will be deprived of the recreational and other amenities that a clean and healthy river which meets the Class B standards would provide, such as boating and fishing. This deprivation causes an actual and concrete injury to OAR, its members, and the eleven citizens. And the injury is causally connected to the Permit, because a lawful permit would bring the River into compliance with state water quality standards. The injury is also within the scope of the Massachusetts Clean Water Act, which is intended to ensure that Massachusetts citizens enjoy the recreational and other benefits of clean rivers. OAR qualifies for representational standing, because it is an organization dedicated to this river and can adequately represent the interests of its members. In addition, OAR requests this adjudicatory hearing in order to prevent damage to the environment from excessive phosphorus loadings into the River.

## **OAR'S CLAIMS OF ERRORS**

1. The Record conclusively establishes that the River currently fails to meet the narrative state water quality standards. 314 CMR 4.05(5)(a) states that “All surface waters shall be free from pollutants in concentrations that settle to form objectionable deposits; float as debris, scum, or other matter to form nuisances, produce objectionable odor, color, taste, or turbidity, or produce undesirable or nuisance species of aquatic life.” Similarly, 314 CMR 4.05(5)(c) provides that “nutrients shall not exceed site-specific limits necessary to control accelerated or cultural eutrophication.” 314 CMR 4.05(3)(b)(1)a. and b. establishes standards for dissolved oxygen. Regarding bottom pollutants or alterations, 314 CMR 4.05(5)(b) requires that, “all surface water shall be free from pollutants...or from alterations that adversely affect the physical or chemical nature of the bottom.”
2. DEP was obligated under 314 CMR 3.10(3) to impose “limitations which are adequate to assure the attainment and maintenance of the water quality standards of the receiving waters.”
3. The Permit does not comply with this requirement because the 0.1 mg/l limit will not achieve the above-identified state water quality standards unless ninety percent of the sediment phosphorus flux is removed. The Permit therefore on its face does not ensure compliance with water quality standards, but instead relies heavily upon the prospect of achieving a ninety percent flux reduction as the means of meeting state water quality standards. But there is no evidentiary support that this goal can be achieved, and the Permit itself neither mandates that the study be conducted or that the removal goals be implemented. Rather than rely upon the ninety percent

reduction, the Permit should have imposed more stringent discharge limitations in the event the ninety percent removal is not achievable. The DEP's failure to do this also violates 314 CMR 3.10(2), which requires the Department to "provide a reasonable margin of safety to account for the lack of knowledge concerning the relationship between the pollutants being discharged and their impact on the receiving waters."

4. The Permit also should have required the Permittee to pursue "scalable" technology, meaning technology that would be capable of complying with phosphorus limits stricter than 0.1 mg/l. This is because if the ninety percent removal is not achieved, a limit stricter than 0.1 mg/l will be required to meet state water quality standards. Yet if the Permittee pursues an approach now that can meet the 0.1 mg/l limit but can do no better than that, there will be a substantial "sunk cost" that could foreclose meeting more stringent limits in the future.
5. The Permit unjustifiably imposes a "median" 0.1 mg/l limit in April, which in effect means much higher phosphorus loadings than would be the case if a 60-day rolling average were used. This exceedance of the 0.1 mg/l is not justified and causes unnecessary phosphorus loadings.
6. The winter limit of 1.0 mg/L is based on untested assumptions about the effects of phosphorus discharge in the winter. The winter limit should be 0.2 mg/l, DEP's official "highest and best practicable treatment" standard, as required by 314 CMR 4.04(5).
7. The Permit unduly prolongs compliance with the growing season 0.1 mg/l limit by allowing fifty-four months for compliance. This should be shortened to forty-eight months. The Permit should also be revised to include a schedule for implementation of other activities specified in the TMDL.

8. The Permit failed to consider and properly account for background and upstream concentrations of metals as required by 314 CMR 4.03(1).
9. The Water Quality Certification is defective for the same reasons as the Permit. Contrary to its findings, the permit conditions are not sufficient to comply with state water quality standards.

### **RELIEF REQUESTED**

For all of the foregoing reasons, OAR requests the following:

1. That the Department conduct an adjudicatory hearing to review the Permit and the accompanying Water Quality Certification.
2. That the Department consolidate this adjudicatory hearing with the adjudicatory hearings requested for the permits issued to three other POTW's, as OAR's challenge to those permits is identical to the instant appeal.
3. That the Department amend the Final Permit to:
  - (i) revise and extend the compliance schedule to 2014 so that it includes both phases of TMDL implementation. The schedule should include the tasks and deadlines for:
    - Compliance with interim 0.1 mg/L phosphorus limit within 48 months of permit issuance.
    - Installation of scalable treatment technology so that lower phosphorus limits can be met in the future.
    - Preparation and completion of the sediment study.
    - Sediment remediation to reduce sediment phosphorus flux 90%
    - Compliance with more stringent "Phase 2" phosphorus no greater than 0.05 mg/L limits by 2014, should sediment remediation prove infeasible or fail to occur.

- (ii) Amend the final permit so that the April 0.1 mg/L interim phosphorus limit is measured as a 60-day rolling average.
- (iii) Amend the final permit so that the winter phosphorus limit is the state's Highest and Best Practicable Treatment limit of 0.2 mg/L until the state and EPA conduct a study to establish a water quality-based limit.
- (iv) Re-calculate the metals limits to account for background and upstream sources of metals.

THE ORGANIZATION FOR THE ASSABET RIVER  
AND ELEVEN CITIZENS

By their Attorney,

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