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BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In re: City of Marlborough Westerly Wastewater Treatment Facility NPDES Permit No. MA0100480	NPDES Appeal Nos. 05-05 and 05-09
In re: City of Westborough Wastewater Treatment Facility NPDES Permit No. MA0100412	NPDES Appeal Nos. 05-07 and 05-08
In re: Town of Maynard Water Pollution Control Facility NPDES Permit No. MA0101001	NPDES Appeal Nos. 05-06 and 05-12

BRIEF OF CONSERVATION LAW FOUNDATION, AMICUS CURIAE

Peter Shelley
B.B.O. No. 544334
John A. Pike
B.B.O. No. 399700
John L. Davenport
B.B.O. No. 114820
Conservation law Foundation, Inc.
62 Summer Street
Boston, MA 02110
(617) 350-0990

STATEMENT OF INTEREST OF AMICUS CURIAE

The Organization for the Assabet River ("OAR") and each of the respective Permittees have filed with the Environmental Appeals Board Petitions for Review of the three captioned NPDES Permits, all issued on May 26, 2005 by the United States Environmental Protection Agency ("EPA") and the Massachusetts Department of Environmental Protection ("MADEP"), authorizing the wastewater treatment facility operated by its Permittee to discharge into the Assabet River[1]. Each Permit contains substantially similar, and, in the case of phosphorous, identical, limitations and conditions[2]. By motion filed with the Board on October 17, 2005, the Conservation Law Foundation ("CLF") requested leave to intervene in these appeals. CLF's organizational status and purpose and its interest in the issues raised by these appeal proceedings were set forth in detail in a memorandum filed with its motion. By Order dated October 18, 2005, the Board denied CLF's request for intervener status, but allowed CLF, if it wishes, to submit a brief no later than November 4, 2005 in support of its position in these appeals and participate as *amicus curiae* in these matters. CLF does wish so to participate as *amicus curiae,* and is filing this brief pursuant to that Order.

[1] OAR appealed a fourth such permit, - NPDES Permit No. MA0101788 issued to the Town of Hudson, Massachusetts. OAR subsequently elected to withdraw its appeal of Hudson's Permit, which Hudson had not appealed, in order to allow its limitations and conditions, which are more stringent (but in OAR's and CLF's view still not sufficiently stringent) with regard to phosphorous than the prior permit, to go into effect immediately. Unless the context indicates otherwise, the term "Permits" as used herein includes Hudson's permit as well as the three captioned permits under appeal, and the term "WWTFs" includes all four wastewater treatment facilities.

[2] The phosphorous limit from May 1 to October 31 is an average monthly concentration limit of 0.1 mg/l, based on a 60-day rolling average. The limit for April is a median of 0.1 mg/l, with a 0.2 mg/l daily maximum. These new 0.1 mg/l limits are to be complied with over a 54-month schedule. In the interim the limit is 0.75 mg/l. The limit from November 1 to March 31 is 1.0 mg/l, to be complied with within one year of the effective date of the Permits.

STATEMENT OF FACTS

The Administrative Record[3] in the proceedings leading up to the issuance of the Permits shows that (i) the eutrophic conditions in the Assabet River[4] and its impoundments cause it to fail by a wide margin to meet the water quality standards designated for those waters by the Commonwealth of Massachusetts[5], (ii) those eutrophic conditions are caused by phosphorous in the River and in the sediments on its bottom, and (iii) the majority of the phosphorous entering the River is from the WWTFs[6]. As demonstrated below, the Administrative Record also establishes that attainment of these water quality standards will require substantial reductions of both the amount of phosphorous in the WWTFs' effluent and in the phosphorous that recirculates into the water from the sediments that have accumulated on the bottom over the years. Accordingly, CLF's interest in the Permits relates primarily to phosphorous.[7]

If the Permits are allowed to stand without any requirement to reduce the amount of phosphorous that recirculates into the water column from the bottom sediments (the "flux") and without mandating a substantially more stringent phosphorous effluent limit if adequate

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[3] See, e.g., the Fact Sheets accompanying the draft Permits; Assabet River Total Maximum Daily Load for Phosphorous, Report No. MA82B-01-2004-01.

[4] The Assabet River rises in Westborough, Massachusetts and flows northeast for 31 miles through Marlborough, Northborough, Berlin, Hudson, Stow, Maynard, Acton and Concord before joining the Sudbury River to form the Concord River, which empties into the Merrimack River, which ultimately empties into the Atlantic Ocean on the northeast coast of Massachusetts. The last four miles of the Assabet were designated by Congress in 1999 as "Wild and Scenic".

[5] The Assabet River is designated as a Class B water under the Massachusetts water quality standards, 314 CMR 4.05(3)b. As such, it should be capable of providing and supporting habitat for fish, other aquatic wildlife and wildlife and for primary and secondary contact recreation, and have consistently good aesthetic value. However, for many years it has been designated under §303(d) of the Clean Water Act as impaired for nutrients (primarily phosphorous) and for organic enrichment and low dissolved oxygen.

[6] At 7Q10 flows 80% of the Assabet is effluent from the WWTFs and will be 100% effluent when the WWTFs reach their design flows. Point sources (principally the WWTFs) are the source of 88% to 98% of the biologically available phosphorous load in the Assabet (TMDL Report, page 5). Even at the WWTFs' current outflows, "[t]here are times when the Assabet River is composed almost entirely of wastewater effluent." (Fact Sheets, page 4).

[7] In their appeals, only the Permittees of the Marlborough Westerly Wastewater Treatment Facility object to their Permit's actual phosphorous limitations. The Westborough Treatment Plant Board objects to the Schedule for

reduction of the flux is not achieved, the Assabet River will in all probability never achieve the water quality standards designated for it.

ARGUMENT

The Permits' Conditions and Limitations Regarding Phosphorous Do Not Ensure Compliance with the Applicable Water Quality Standards and thus Violate the Clean Water Act

The Assabet River Total Maximum Daily Load for Total Phosphorous, Report No. MA82B-01-2004-01, Control No. CN 201.0 (the "TMDL Report")[8] conclusively shows that the Permits' new 0.1 mg/l summertime phosphorous limit will not result in the attainment of the designated water quality standards unless 90% of the phosphorous flux is removed[9]. If the phosphorous flux is reduced by only 75%, substantially lower effluent limits, - 0.05 or 0.025 mg/l, - would be required.[10]

Notwithstanding the TMDL Report's clear conclusions as to the necessity of a 90% reduction in the phosphorous flux in combination with the summertime 0.10 mg/l effluent limitation (or, in the alternative, a substantially lower effluent limitation in the event the flux is reduced by a lesser percentage), the Permits neither mandate such flux reduction nor the

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compliance with the 1.0 mg/l wintertime limit, but not to the limit itself. Similarly, the Maynard Department of Public Works objects to the 54-month Schedule for compliance with the new limits, but not to the limits themselves.

[8] Approved by the EPA, after opportunity for public comment and responses to comments from the EPA, Permittees, OAR and others.

[9] "The TMDL for meeting the water quality objectives, including a margin of safety, is removal of total phosphorous from POTW effluents to 0.1 mg/L and a 90% reduction of phosphorous sediment flux". TMDL Report, Executive Summary at page 7. Marlborough/Northborough's assertions in their appeal that the 0.1 mg/L limit is not justified essentially repeat the Assabet River Consortium's Comment Nos. 8, 9 and 10 and Marlborough/Camp Dresser & McKee Inc.'s Comment No. 9 on the draft permits and are adequately refuted by the Region's responses to those comments as well as by the TMDL Report at page 41 and the responses to comments on the draft TMDL Report at pages 69-70.

[10] TMDL Report, pages 28-31.

necessary lower effluent limitation in the event that such reduction is for any reason not achieved.

40 CFR §122.4(d) provides that:

> "No [NPDES] permit may be issued . . . [w]hen the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States (emphasis added).

By failing to mandate conditions that the TMDL Report states are required for the achievement of the State's water quality standards, the Permits on their face fail to "ensure" compliance with those standards and therefore violate the prohibition of 40 CFR §122.4(d)[11]. EPA Region 1's suggestion in its Response to Comments that more stringent effluent limits may be imposed in the next renewal of the Permits if the 90% flux reduction is not achieved[12] does not "ensure" anything. Where necessary for the attainment of water quality standards, §301(b)(1)(C) of the CWA requires limits more stringent than technology-based limits, and cost and technological considerations may not be considered in establishing such water quality-based limitations. In re Westborough and Westborough Treatment Plant Board, 10 E.A.D. 297 at 312 (2002). The water quality-based limitation for phosphorous must be consistent with the waste load allocation provided in the TMDL Report. 40 C.F.R. §122.44(d)(1)(vii)(B).

The recent decision of the Environmental Appeals Board in its Order Denying Petition for Review in Part and Remanding in Part, In re City of Marlborough, Massachusetts, Easterly Wastewater Treatment Facility, NPDES Appeal No. 04-13, EAB, August 11, 2005 (the "Hop Brook Decision")[13] compels a remand of the Permits to cure these defects. The permit conditions

[11] The standard NPDES permit condition that the discharge "shall not cause a violation of the water quality standards of the receiving waters" (Part I.A.1.a of the Permits) does not cure this defect. See Hop Brook Decision, infra, at page 21. In fact, the Permits' failure to mandate effluent limits and other conditions required for the attainment of the water quality standards will result in the breach of this condition.

[12] Response to Comment No.1 of OAR, Town of Sudbury, Hop Brook Protection Association, et. al.

[13] The Conservation Law Foundation moved to intervene in the petitions to review the Hop Brook NPDES permit filed by the Permittee and the Town of Sudbury, and the EAB by order dated January 10, 2005 granted CLF's

and underlying facts involved in the Hop Brook Decision with regard to phosphorous are virtually identical to those involved here. The receiving waters in that case are failing by a wide margin to meet the applicable water quality standards for the same reason, - eutrophication caused almost entirely by the wastewater treatment facility's phosphorous discharge. Although no TMDL study of Hop Brook and the ponds through which it flows has been done, there is ample evidence in the record that the permit's new 0.10 mg/l summertime phosphorous effluent limitation would not result in the attainment of the water quality standards without adaptive management measures to reduce phosphorous recycling from the bottom of Hop Brook and its ponds. While EPA Region 1 in its response to comments and in the Fact Sheet accompanying the draft permit recommended such adaptive management measures and suggested that a more stringent effluent limitation may be imposed in the next renewal permit if the new 0.10 mg/l limitation does not result in attainment of the water quality standards, the permit failed to mandate either such measures or such more stringent limitation. Finding that Region 1 had failed to demonstrate that the permit will "ensure" compliance with the applicable water quality standards, and notwithstanding MADEP's certification of the permit under §401(a) of the CWA[14], the EAB remanded the permit, directing the Region either to demonstrate that the permit as written will ensure such compliance, or make appropriate modifications to it.

> "Based on the record before us, it is unclear whether the Permit complies with the regulatory prohibition on issuing a permit 'when imposition of conditions cannot *ensure* compliance with applicable water quality requirements.' 40 C.F.R. §122.4(d) (emphasis in the original). . . . the record does not indicate whether the Permit's 0.1 mg/l phosphorous limitation, by itself, will meet the state's water quality standards. With regard to the likelihood that imposition of the 0.1 mg/l phosphorous limitation will be

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motion "to the extent that CLF seeks leave to participate as amicus curiae and respond to the petitions for review or to other submissions filed in this proceeding."

[14] ". . . when the Region reasonably believes that a state water quality standard requires a more stringent limitation than that reflected in a state certification, the Region has an independent duty under section 301(b)(1)(C), 33 U.S.C. §1311(b)(1)(C), to include more stringent limitations" (citations omitted). Hop Brook Decision, footnote 22.

sufficient to meet water quality standards, the Region states that such a result may be possible, but a mere possibility of compliance does not 'ensure' compliance." (pgs 21-22)

> "Without further explanation, [the Region's statements in the Fact Sheet and responses to comments] would suggest that the Region harbors concern that a discharge limitation, by itself, may not be sufficient to meet water quality standards. Nevertheless, the Permit does not contain any provisions requiring that Marlborough study or otherwise address the potential for phosphorous releases from the sediment in the Hop Brook ponds during the term of this Permit; nor does the Permit contain any provisions requiring further action, evaluation, or modification in the event that water quality standards are not achieved despite compliance with the 0.1 mg/l phosphorous limitation." (pg 22)

Given the TMDL Report on the Assabet, the case for remanding the Assabet Permits on these same grounds is at least as strong as was the case with the Hop Brook Decision.

Region 1 is apparently concerned that the EPA may not have jurisdiction under the CWA to require phosphorous sediment flux reduction because it is uncertain that the sediments themselves are "point sources", even though those sediments are almost entirely the result of the WWTFs' point source discharges. The EAB in the Hop Brook Decision exhibited no such concern, remanding the permit specifically for its failure to require the permittee to "address the potential for phosphorous releases from the sediment" (supra). Furthermore, even if Region 1 does not have jurisdiction to mandate phosphorous sediment flux reduction, it clearly has jurisdiction to mandate whatever more stringent point source effluent limitation, - even down to 0.0%, - is required for the attainment of the designated water quality standards in the absence for any reason of adequate flux reduction. In fact, the Clean Water Act compels it to do so.

Because of the substantial possibility that a 90% flux reduction will not be feasible and that a substantially more stringent phosphorous effluent limitation will therefore be required, the Permits should also require that the Permittees, in upgrading their WWTFs to meet the new 0.1 mg/l limit, adopt "scalable" technology that can more readily be adapted to meet such more

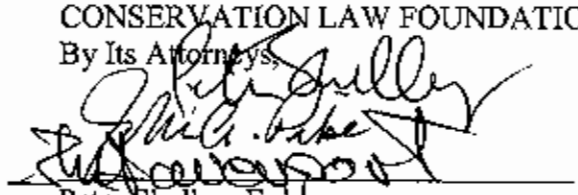
stringent limit, as recommended by the TMDL Report[15]. If the WWTFs were to install non-scalable technology incapable of doing better than 0.1 mg/l, the Permittees would be forced to make further, duplicative expenditures to meet a lower limit.

Relief Requested

For all of the foregoing reasons, CLF requests that the Board direct Region 1 to amend the Permits, subject to an appropriate Compliance Schedule, (i) (a) to mandate the 90% reduction in the phosphorous flux shown by the TMDL Report to be required in combination with the new 0.10 mg/l April – October phosphorous effluent limitation for the attainment of the designated water quality standards, and (b), in the absence of adequate flux reduction, to mandate the substantially more stringent phosphorous effluent limitations shown by the TMDL Report to be required for such attainment, and (ii) to mandate the installation of scalable treatment technology so that such more stringent limitations can be met if necessary

Respectfully submitted,

CONSERVATION LAW FOUNDATION
By Its Attorneys,



Peter Shelley, Esq.
John A. Pike, Esq.
John L. Davenport, Esq.
Conservation Law Foundation
62 Summer Street
Boston, MA 02110-1016
Ph: (617) 350-0990
Fax: (617)h 350-4030

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[15] ". . . the design [of the upgrades required to meet the new 0.1 mg/l limit] should be consistent with adding new technology in the future to achieve further reductions if deemed necessary". (TMDL Report, page 8).

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Motion of the Conservation Law Foundation For Leave To Intervene in the matter of the Petitions for Review of the above captioned NPDES Permits and of the Memorandum of Law in Support thereof were served by United States First Class Mail on the following persons, this 3rd day of November, 2005:

Donald L. Anglehart, Esq.
Gadsby Hannah LLP
225 Franklin Street
Boston, MA 02110

Joseph M. Hamilton, Esq.
Mirick O'Connell
100 Front Street
Worcester, MA 01608-1477

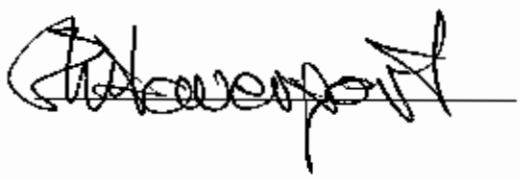
Kenneth L. Kimmell, Esq.
Bernstein, Cushner & Kimmell, P.C.
585 Bolyston Street, Suite 400
Boston, MA 02116

Julia Blatt
Organization for the Assabet River
9 Damon Mill Square, Suite 1E
Concord, MA 01742

Robert Varney, Regional Administrator
U.S. Environmental Protection Agency
Region 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Glenn Hass, Director
Division of Watershed Management
Department of Environmental Protection
Commonwealth of Massachusetts
One Winter Street
Boston, MA 02108-4746

David W. Owen
Interim Town Administrator
Office of the Department of Public Works
Municipal Building, 195 Main Street
Maynard, MA 01754



Dated: November 3, 2005