UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
ONE CONGRESS STREET, SUITE 1100 (CPE)
BOSTON, MASSACHUSETTS 02114 - 2023

FACT SHEET

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

NPDES PERMIT NO.: MA0100498

NAME AND ADDRESS OF APPLICANT:

Doran Crouse, Assistant Commissioner
City of Marlborough
Public Works Department
135 Neil Street
Marlborough, Massachusetts 01752

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Marlborough Easterly Wastewater Treatment Facility
860 Boston Post Road
Marlborough, Massachusetts 01752

RECEIVING WATER: Unnamed Tributary to Hop Brook (Concord Watershed)

CLASSIFICATION: B

I. Proposed Action,

On August 11, 2005, the Environmental Appeals Board ("Board" or "EAB") issued a decision in a petition for review filed by the Town of Sudbury in connection with an NPDES permit ("Permit") jointly issued by EPA-New England Region ("Region" or "EPA") and the Massachusetts Department of Environmental Protection ("MassDEP") to the City of Marlborough ("Permittee" or "Marlborough") for discharges from Marlborough Easterly Wastewater Treatment Facility. In re City of Marlborough Easterly Wastewater Treatment Facility, NPDES Appeal No. 04-13, 12 E.A.D. ___. The Board remanded the summer seasonal phosphorus effluent limit of 0.1 mg/l ("Phosphorus Limit") and the use of a seasonal averaging period to measure compliance with the interim seasonal phosphorus limit. It denied the petition for review in all other respects. The Region is proposing this draft modification in response to the remand.

II. Limitations and Conditions

Total Phosphorus-Compliance Schedule

The Board remanded the permit to the Region for further consideration of the Phosphorus Limit because the Region had not demonstrated that the permit would "ensure" compliance with Massachusetts' water quality standards. As the Board explained:

> The Region has … stated that the phosphorus discharge limitation may not be sufficient to control nutrient levels due to "the significant amount of phosphorus that will continue to recycle from the sediments for many years" and that "it may be necessary to further reduce the point source phosphorus limit." Response to Comments at 4. Without further explanation, this text would suggest that the Region harbors concern that a discharge limitation, by itself, may not be sufficient to meet water quality standards. Nonetheless, the Permit does not contain any provisions requiring that Marlborough study or otherwise address the potential for phosphorus 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 phosphorus limitation. [footnote omitted] Rather, as indicated above, the Region merely states that "it is in the [Permittee's] interest" to conduct studies relating to sediment remediation, with the need for lower phosphorus limits to be determined at the expiration of the permit. Response to Comments at 11-12. Although the Region states that, upon Permit expiration, it will determine whether additional treatment is needed to attain water quality standards, it is simply unclear from the record before us whether this Permit will ensure compliance with water quality standards.

City of Marlborough, slip opinion at 22-23. In light of the Board's decision, the Region has decided to retain the Phosphorus Limit of 0.1 mg/l but to modify the compliance schedule of the Permit to include a "mandatory" reopener that will be triggered prior to the Permit's expiration on January 16, 2010 to include any more stringent phosphorus effluent limitation necessary to ensure compliance with water quality standards. After evaluating which, if any, nonpoint source reductions have been assured by October 1, 2009, the Region will, if necessary, modify or revoke and reissue the Permit during its term to impose a phosphorus effluent limit that will be sufficient to ensure compliance with water quality standards. One possible outcome is that the existing Phosphorus Limit of 0.1 mg/l will be sufficient if the requisite nonpoint source phosphorus reductions have been assured. However, if such reductions have not been assured, a point source effluent limitation that will ensure compliance with standards will be imposed. The modified schedule will provide the Permittee and other interested parties with a limited opportunity to explore the potential for sediment phosphorus remediation, but will at the same time provide certainty that the permit as written will by a date certain include a phosphorus effluent limit that will ensure compliance with standards.

This modification is consistent with EPA water quality trading guidance, which supports trading that involves nutrients or sediments loads. "EPA Final Water Quality Trading Policy" (January 13, 2003) at p. 4 ("EPA supports trading that involves nutrients (e.g., total phosphorus and total nitrogen) or sediment loads.") and p. 5 ("EPA…supports pre-TMDL trading that achieves a direct environmental benefit relevant to the conditions or causes of impairment to achieve progress towards restoring designated uses where reducing pollutant loads alone is not sufficient or as cost-effective.").

The decision by the Region and MassDEP to retain the Phosphorus Limit follows lengthy discussions with the City of Marlborough and the Town of Sudbury to craft a settlement that will address both point *and* nonpoint sources of nutrient impairment in the Hop Brook. The administrative record is clear that this comprehensive approach will restore designated uses more rapidly than an immediate imposition of a more stringent point source phosphorus limit on Marlborough's discharge without any nonpoint source reductions occurring. Even with a more stringent phosphorus effluent limit, existing accumulations of phosphorus in the sediment will continue to cycle through the water column for a long period of time before abating and thus continue to contribute to the nutrient impairment of the receiving waters. See, Supplemental Nutrient Loading Evaluation of Hop Brook (ENSR 2004) at 6-1 through 6-3. Under the proposed compliance schedule, three separate processes will interact over the next three and a half years to identify, implement and verify nonpoint source reductions:

1. Identification of Options: Feasibility Study

The Permittee and other interested parties, including the Town of Sudbury, are voluntarily participating in a feasibility study that will develop and evaluate effective and feasible alternative plans, and will present recommended options from among the alternative plans, to ensure compliance with water quality standards with respect to phosphorus in the Hop Brook ("Feasibility Study"). The feasibility study has recently been fully funded by MassDEP in anticipation of this proposed modification and is being conducted by the U.S. Army Corps of Engineers ("Corps"). EPA and MassDEP will determine which recommended options, if any, will ensure compliance with water quality standards when implemented in combination with the Phosphorus Limit ("Approved Options").

EPA and MassDEP expect that the Feasibility Study will be completed by the Corps by April 2007.

2. Assuring Implementation of Options: Memorandum of Understanding

The Permittee, the Town of Sudbury and MassDEP will negotiate and enter into a Memorandum of Understanding ("MOU") to collaborate to develop a strategy and action plan concerning the implementation of the nonpoint source reductions associated with the Approved Option(s). The MOU will not create any legal rights or impose any legal obligations on any party concerning implementation of any Approved Option. Instead, the MOU is in intended to be a mechanism outside of the Permit that the parties will use to collectively navigate the complex

technical, legal and political issues that will be involved in any sediment remediation effort.

3. Verification

The reopener will allow the Region to validate the extent of nonpoint source reductions that have been assured prior to expiration of the Permit and, in light of those expected reductions, to modify the Permit as necessary to ensure compliance with water quality standards. It should be emphasized that the nonpoint source reductions associated with an Approved Option need only be assured and not actually implemented by October 1, 2009 in order to avoid the reopener.

The Region believes that the proposed structure of the compliance schedule not only adequately responds to the Board's concerns, but also accommodates the willingness of impacted communities to jointly pursue the potential for nonpoint source reductions that, if implemented, will accelerate restoration of uses.

As a part of this modification, the Region is also revising the Permittee's compliance schedule to complete the treatment plant upgrade. Under implementing NPDES regulations, a schedule leading to compliance with CWA requirements may be used "when appropriate," but must require compliance "as soon as possible." 40 C.F.R. § 122.47; see also, 314 C.M.R. § 4.03(1) (authorizing discretionary use of compliance schedules in Massachusetts); see further, In re Star-Kist Caribe, Inc., 3 E.A.D. 172, 175 (Adm'r. 1990), modification denied, 4 E.A.D. 33 (EAB 1992). The adjustment to Marlborough's compliance schedule is intended in part to synchronize the compliance schedule with the activities regarding nonpoint source reductions described above. The new compliance schedule provides for planning to begin 12 months from the effective date of the modification; design to begin 24 months from such date; planning and design to be completed in 42 months; and construction to begin in 48 months. This schedule for planning and design will allow the Permittee to account for any changes resulting from the Feasibility Study, MOU and permit reopener process prior to initiating construction. Since the remand, the Permittee has also commenced another major facility upgrade on its Westerly Wastewater Treatment Plant. The Region and MassDEP believe it would be reasonable to stagger the construction schedules of the two permits, so Marlborough will not be required to conduct two major construction upgrades at the same time. The agencies believe that sequencing the two schedules will allow Marlborough to more efficiently direct its resources to the successful and timely completion of each respective upgrade. Because the upgrade will be plant-wide, the schedule provides 30 months to complete construction of the Easterly facility.

Interim Seasonal Phosphorus Limit - Averaging Period

The Board also remanded the Permit because the Region did not explain its use of an "interim seasonal average total phosphorus limit" to measure compliance with the interim seasonal phosphorus limit (April through October). See Permit Cond. I.A.1, note 6. In

its petition for review, Sudbury had argued that the provision was not present in the draft permit, that it was not sufficiently stringent to achieve compliance with applicable water quality standards and that the requirement was impermissibly vague. Sudbury advocated for use of a monthly average instead.

Compliance with the interim phosphorus limit for April through October will be measured using a 60 day rolling average. Water quality-based limits that are developed to protect against chronic impacts such as eutrophication are typically established as monthly average limits. The 60-day rolling average limit for phosphorus possesses advantages over monthly averaging because it provides the permittee with flexibility to deal with occasional, perhaps unavoidable excursions above limits, while at the same time necessitating that such exceedences are short-term and that low levels of effluent discharges are maintained overall. Short-term exceedances of the phosphorus limit are unlikely to result in a significant response in the receiving water relative to aquatic plant growth. Longer term exceedances capable of eliciting a response in plant growth would likely result in a violation of the rolling average limit. The rolling average also ensures that any reduction in treatment efficiency is responded to quickly.

III. State Certification Requirements

EPA may not issue a permit modification unless the State Water Pollution Control Agency with jurisdiction over the receiving waters certifies that the effluent limitations contained in the permit modification are stringent enough to assure that the discharge will not cause the receiving water to violate state Water Quality Standards. The staff of the Massachusetts Department of Environmental Protection has reviewed this modification and advised EPA that the limitations are adequate to protect water quality. EPA has requested certification by the state pursuant to 40 CFR § 124.53 and expects that the draft permit modification will be certified.

IV. Comment Period, and Procedures for Final Decision

When a permit is modified, only the conditions subject to modification are reopened. 40 CFR §§ 122.62 and 124.5(c)(2). All persons, including applicants, who believe any condition of the draft permit modification is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the U.S. EPA, Office of Ecosystem Protection (CMP), ATTN: David Pincumbe, One Congress Street Boston, Massachusetts 02114-2023. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit modification to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit modification the Regional Administrator will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Regional Administrator will issue a final permit modification decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice.

V. EPA Contact

Additional information concerning the draft permit modification may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays from:

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Linda M. Murphy, Director Date
Office of Ecosystem Protection