

E

# ANDERSON & KREIGER LLP

DOUGLAS H. WILKINS  
[dwilkins@andersonkreiger.com](mailto:dwilkins@andersonkreiger.com)  
Direct phone: 617-621-6580  
Direct fax: 617-621-6680

August 30, 2007

## **HAND DELIVERED**

United States Environmental Protection Agency  
1 Congress Street, Suite 1100  
Boston, Massachusetts 02114-2023

Re: Comments of the City of Attleboro on Revised Draft NPDES Permit  
No. MA0100595

Dear Sir or Madam:

The City of Attleboro ("City") opposes the change proposed by the revision to the draft permit, namely the imposition of a 0.1 mg/l monthly phosphorus limit. It welcomes the opportunity to comment upon this proposed change, because the change would cause a scientifically and legally unjustified expenditure of public resources. It also fully incorporates the Comments of Camp, Dresser & McKee, attached as Exhibit 1 ("CDM Comments").

In its fact sheet accompanying the original draft permit (at p. 8), proposing a limit of 0.2 mg/l phosphorus, EPA stated:

A monthly average total phosphorus limit of 0.2 mg/l has been established based on the "highest and best" practical treatment as defined by the MAWQS. . . . If MassDEP adopts numeric nutrient criteria, a TMDL is completed, or additional water quality information shows that phosphorus limits are not stringent enough to meet water quality standards, more stringent limits may be imposed.

All of these facts and considerations still apply. MassDEP has not adopted numeric criteria; there no TMDL; and no additional water quality information appears in the record. EPA points to nothing that has changed, other than comments from RIDEM, which contained no new data and no new analysis. It would be arbitrary and capricious to change course with no change in circumstances and no data to back up the decision.

This is particularly true in light of the justification given in the new Fact Sheet for the draft Attleboro Permit revision ("Fact Sheet"). Neither EPA nor the States tolerate the practice of imposing limits upon WWTPs based upon the fact that some downstream waters may be "stressed," without specific inquiry, data and analysis showing the facility's actual contribution (or lack thereof) to an alleged water quality violation, and an

assessment of the total load and the Pond's capacity, from which the WWTP's contribution may be allocated. See Arkansas v. Oklahoma, 503 U.S. 91 (1992); Friends & Fishers of the Edgartown Great Pond, Inc. v. Department of Environmental Protection, 446 Mass. 830, 840-844, (2006); RIDEM Rule 7. The Fact Sheet departs from this practice and offers two rationales that do not meet legal requirements.

I. EPA GUIDANCE DOES NOT SUPPORT THE LIMIT

The Fact Sheet (p. 3) quotes EPA's "Ambient Water Quality Criteria Recommendations: Information Supporting the Development of State and Tribal Nutrient Criteria Lakes and Reservoirs in Nutrient Ecoregion XIV." That document, like the other EPA documents cited in the Fact Sheet, does not support the proposed limit. Nor does EPA present data that would permit applying that document in a scientifically defensible way.

As noted in the accompanying analysis by CDM, the document that EPA cites specifically states:

EPA does not recommend identifying nutrient concentrations that must be met at all times; rather a seasonal or annual averaging period . . . is considered appropriate.

Far from supporting EPA's approach, this refutes the Fact Sheet's practice of basing calculations based upon 7Q10 flows. The Fact Sheet even considers times when the Attleboro WWTP's discharge (and that of the North Attleboro WWTP) account for all of the river's flow. These flows are certainly not seasonal or annual averages. Yet these flows are in fact the sole basis for setting a 0.1 mg/l limit (apart from the Rhode Island regulations, discussed below):

**Given the lack of effective dilution under 7Q10 flow conditions**, a monthly average phosphorus effluent limit of 0.1 mg/l has been established to ensure that the Gold Book recommended value of 0.1 mg/l [sic] will not be exceeded in the Massachusetts reaches of the river below the discharge. [emphasis added]

Fact Sheet, p. 4, citing also the Nutrient Criteria Technical Guidance manual.

Under this reasoning, the plant's limit is the same as the limit for the River itself – which can only be true if one assumes that there is no dilution or attenuation at all. But EPA has acknowledged that "phosphorus" is "not completely retained in the water column" (Fact sheet, p. 5) and has acknowledged that the Attleboro WWTP discharges experience some dilution before reaching the Rhode Island border. See EPA Response #17 to North Attleboro Permit Comments, p. 16, attached as Exhibit 2 to this letter.<sup>1</sup> See also USGS,

<sup>1</sup> The RIDEM 2004 evaluation, p. 19 (previously submitted), states that "[i]n the Ten Mile river, the DIN discharge to the Seekonk River was found to be 61% of the concurrent load estimate from the Attleborough and North Attleborough WWTFs using 1995-1996 flows.

Attleboro Permit Comments, p. 16, attached as Exhibit 2 to this letter.<sup>1</sup> See also USGS, Map attached as Exhibit 4. On that basis, it initially proposed to reject RIDEM'S argument from the 0.1 mg/l phosphorus limit. *Id.* Scientific studies show a substantial attenuation rate for phosphorus in streams. See excerpts from USGS "Sparrow" report entitled "Estimation of Total Nitrogen and Phosphorus in New England Streams Using Spatially Referenced Regression Models," excerpts attached as Exhibit F.<sup>2</sup> See also CDM Comments. The present change in position is, surprisingly, not supported with any rationale for ignoring or downplaying this attenuation factor.

Moreover, in referring to the Nutrient Criteria Technical Guidance Manual, EPA's Fact Sheet provides nothing to support its cryptic reference to "adjustments" that may have been "made to account for the differing flow assumptions used to determine those values (i.e. 7Q10 versus 2 or 3-month summer seasonal flows)." The cited literature does, indeed confirm that use of the 7Q10 values are not recommended. Yet, EPA relies upon such values anyway. Why it then refers to adjustments (presumably judgmental) to the 7Q10 values to produce seasonal numbers – which it apparently should have used in the first place – is a mystery, but it is not appropriate or scientifically justified. As such, it is speculative, arbitrary and capricious and contrary to law.

The problem is compounded by the fact that EPA previously cited the same Gold Book and its Ecoregional Nutrient Criteria, which support instream phosphorus concentrations up to 0.24 mg/l -- consistent with the MassDEP highest and best practicable treatment of 0.2 mg/l – in justifying the original 0.2 mg/l limit for the North Attleboro plant, and the Attleboro WWTP. North Attleboro Response to Comments, p. 5. To use the same data to support two significantly different conclusions, to the detriment of the City, is again arbitrary and capricious.

Nor do the EPA Criteria Recommendations set forth 24 ug/l "for this ecoregion" as a whole (see Fact Sheet, p. 3); that number applies only to certain types of water bodies. Applying the number to a river, without considering whether a WWTP discharge causes the impoundment itself to exceed applicable limits (or whether the impoundment is really a pond at all), contravenes the source document. None of the new analysis is faithful to the words or intent of the cited EPA documents, which, properly read, do not support the proposed 0.1 mg/l monthly limit.

---

1 The RIDEM 2004 evaluation, p. 19 (previously submitted), states that "[i]n the Ten Mile river, the DIN discharge to the Seekonk River was found to be 61% of the concurrent load estimate from the Attleborough and North Attleborough WWTFs using 1995-1996 flows.

2 By reference, these comments also incorporate the entire Sparrow Report, at the URL reflected in Exhibit F.

Moreover, even RIDEM urged EPA to adopt a wasteload allocation approach (with a margin of safety). See RIDEM Comments, dated September 12, 2006, on North Attleboro and Attleboro draft permits, p. 3, attached as Exhibit 3 (“the limits **must** be revised using a Waste Load Allocation strategy . . .”). Adopting a dilution approach is no substitute; RIDEM’s regulations (incorporating notions of causation and average values, as discussed below) cannot be applied without doing the work required by the allocation approach. To do valid wasteload allocations requires identifying the other contributing sources of phosphorus; otherwise, one use may be overregulated and others ignored or under-regulated. See accompanying CDM comments. For instance, in Arkansas, 503 U.S. at 108, the Supreme Court cited the Clean Water Act’s “provisions designed to remedy existing water quality violations and to allocate the burden of reducing undesirable discharges between existing sources and new sources. See, e.g. § 1313(d).” There is no way to allocate burdens rationally without first identifying all sources, calculating the load capacity of the receiving body and then determining which discharges merit allocations of particular loadings in the context of the “Reservoir’s” watershed. The very concept of a “wasteload allocation,” referenced in RIDEM’s comments, requires as much.

Likewise, in Friends & Fishers, 446 Mass. at 840-841, the court relied upon a “comprehensive” and “studied analysis of various sources’ contributions of nitrogen to the recharge area and the watershed” -- a report of load growth scenarios and contributions of various sources to the Pond’s nutrients, funded by EPA under Section 604(b) of the Clear Water Act.<sup>3</sup> Based upon this 604(b) report and the applicable regulations (including applicable surface water regulations), the Court affirmed a groundwater discharge permit that allowed a wastewater treatment plant to contribute nitrogen to a Pond whose waters “are already stressed.” Id. at 843-844. The Court noted the Mass. DEP Commissioner’s observation that the antidegradation provision requires, among other things “nonpoint source controls to address eutrophication.” Id. at 843. There is no evidence that this level of analysis (or anything of equal scientific validity) has been done here, to justify severe limits upon phosphorus.

We know, for instance, that there are many other sources of nutrients in Turner Reservoir, not the least of which may be the numerous nearby golf courses. See Attachment 5 to this letter. Neither EPA nor RIDEM provides any studied analysis of sources of nutrients, load growth (or diminution<sup>4</sup>) scenarios or tolerance of the Turner Reservoir. There is, of course, no TMDL or other site-specific analysis of tolerable limits. Without studying the total context in which the Attleboro WWTP’s discharge allegedly contributes to any alleged water quality violation, the 0.1 mg/l limit is speculative. There is no way to know whether imposing any particular limit will even have any effect at all, other than imposing costs upon Attleboro’s tax and rate payers. The Fact Sheet does not begin to perform the serious task of wasteload allocation for

<sup>3</sup> See Exhibit 9 [Wilcox testimony regarding EPA program].

<sup>4</sup> EPA should study the declining phosphorus levels cited in its original Fact Sheet on the Attleboro and North Attleboro draft permits.

Turner Reservoir. Nor does it refer to any study that has done so. To impose speculative limits, based upon a RIDEM's request for a wasteload allocation approach, without supporting data, is arbitrary and capricious. Congress never intended to permit such an approach; it mandated TMDLs and contemplated scientific studies as a basis for allocation decisions. See, e.g. 33 U.S.C. § 1313(d)(TMDL's); 33 U.S.C. § 1285(j) (604(b) water quality management planning grants); 40 CFR 130.7 (calculation of TMDL).

## II. RIDEM REGULATIONS DO NOT SUPPORT THE LIMIT

The new Fact Sheet cites Rhode Island regulations. Even applying the Rhode Island standard, the proposed 0.1 mg/l phosphorus standard is excessively stringent.

The relevant Rhode Island rule reads:

**Average Total Phosphorus shall not exceed 0.025 mg/l in any lake, pond, kettlehole or reservoir, and average Total P in tributaries at the point where they enter such bodies of water shall not cause exceedance of this phosphorus criteria [sic], except as naturally occurs, unless the Director determines on a site specific basis, that a different value for phosphorus is necessary to prevent cultural eutrophication.**

Table 1.8D.(2)[emphasis added].

The draft justification for the 0.1 mg/l limit falls well short in many ways, particularly when compared to each word or phrase of the regulation highlighted in bold above:

- Neither the evidence, nor the proposed limit, deal with "average" values over the applicable time period. The limit deals with a monthly figure, when seasonal values are appropriate; it imposes a number based upon the discharge point and the discharge of the tributary into Turner Pond without inquiring into average values in Turner Reservoir; and it ignores average total P in the Ten Mile River.
- The regulation does not require tributaries to meet the 0.025 mg/l standard; rather it asks whether the average P in tributaries contributes to an average P exceedance in the Reservoir. Yet, the rationale for the limit proceeds on the assumption that this limit applies to the tributary river (see below).
- There has been no attempt to evaluate the relative contributions of phosphorus of the various point and non-point sources and no showing that the Attleboro WWTP, more than a mile upstream, "causes" any exceedance in the Turner Reservoir.

- Turner Reservoir is a man-made impoundment, no longer used as a "reservoir". See Army Corps of Engineers Study, excerpts attached as Exhibit 7. Nor is it a "Pond" See CDM comments. It is the impoundment itself that has "caused" any exceedances. Blaming an out-of-state municipality for the alleged water quality problems caused by impounding the river is not consistent with the regulations or fair play.
- There is no showing of what phosphorus "naturally occurs." Without such data, it is impossible to lay blame at Attleboro's feet.

RIDEM's comments to the EPA on the Rhode Island regulation materially misstate the regulation's plain language. In its comments on the North Attleboro and Attleboro WWTP draft NPDES permit (p. 2), RIDEM claims that "[d]etermination of whether the water quality criterion of 25 ug/l is applicable to the Ten Mile River requires evaluation of whether it flows into a lake, pond or reservoir (including whether run of the river impoundments constitute a lake pond or reservoir)." [Emphasis added]. The regulation, however, does not apply the 25 ug/l criterion to any river ("tributary") itself. Rather, by its plain terms, it asks whether the tributary's average P causes an exceedance of average P in the "reservoir". There is no numerical limit for the level of P in the River. By reprising RIDEM's erroneous construction, EPA has imposed a non-applicable criterion upon the Ten Mile River and upon the Attleboro WWTP. North Attleboro Response to Comments, p. 16.

Since the question is the "Reservoir's" ability to maintain an average 0.025 mg/l level, EPA must determine the "Reservoir's" Loading Capacity, which the RI regulations (Rule 7) define as "the maximum amount of loading that a surface water can receive without violating water quality standards." EPA has not done so. Nor has the Reservoir's Load Allocation been presented. See also RI Regs, Rule 7 (defining "load allocation" as "the portion of a receiving water's loading capacity that is attributed either to one of its nonpoint sources of pollution or to natural background sources"). These rules demonstrate that Rhode Island contemplates essentially the same detailed analysis as Friends & Fishers, as a matter of interpretation of state water quality regulations. Indeed, RIDEM's comments of September 12, 2006 state that the load allocation analysis "must" be done. There is no short-cut in applying the Rhode Island regulations. The draft permit errs in attempting to employ one.

A brief review of the broader statutory and regulatory context may also be in order. As the City noted in its original comments on the draft permit, the total phosphorus limits must be justified, if at all, under Section 401(a)(2) [33 U.S.C. § 1341(a)(2)] and 40 CFR § 122.44(d), relating to conditions in NPDES permits that will ensure compliance with the "applicable water quality requirements" of a "downstream affected state", namely Rhode Island. In this context, EPA must determine what state-law standards are "applicable" Arkansas, 503 U.S. at 110. A system that places burdens unequally or disproportionately upon out-of state dischargers would be discriminatory and contrary to congressional

intent. Where, as argued above and in the City's original comments, the Attleboro draft permit limits are more stringent with regard to Rhode Island waters than the limits contained in the language of RIDEM's actual regulations, the permit limits contravene the Clean Water Act and the legislative purpose of uniformity. If Rhode Island can allocate the principal burden of lowering pollution *within its waters* to out-of-state dischargers (without even examining the relative contributions of various sources, including in-state ones), it can shift the responsibility and expense of improving its water quality onto those who lack a political voice in Rhode Island. As a matter of policy, fairness and law, EPA must not allow that to occur here and therefore must withdraw the total phosphorus permit limits proposed in the amended draft permit. As argued extensively above, Attleboro's concern about even-handed treatment is heightened by the level of speculation and scientific uncertainty underlying the proposed phosphorus limits.<sup>5</sup>

III. MASS. DEP SHOULD DISAVOW THE LIMIT.

If the 0.1 mg/l phosphorus limit is proposed by DEP as well as by EPA, DEP should reconsider and remove the new phosphorus limit from the state permit (as it has done with the new nitrogen limit). The Fact Sheet is replete with references to DEP's highest and best practicable treatment of 0.2 mg/l. To depart from that limit without a TMDL study or other data would be arbitrary and capricious.

At least, given DEP's consistent position that 0.2 mg/l is "highest and best practical treatment" and the approach that it took in Friends & Fishers, 446 Mass. at 840-844 (namely, allowing a discharge that affected a stressed pond, only after a comprehensive study of other sources and explicitly allocating permissible nursery loads for the WWTP), it would be unlawful, arbitrary and capricious for DEP to impose the 0.1 mg/l limit here.

IV. EPA HAS NOT FOLLOWED APPLICABLE PROCEDURE AND SHOULD GRANT A HEARING.

There are procedural irregularities. First, under 40 CFR 124.14, given the reopening of the comment period, there should have been a 60 day comment period, not a 30 day one. Scheduling this 30 day comment period during the month of August, a customary vacation time for many people, has not allowed as full participation as might have been

---

<sup>5</sup> Applying the rules based upon valid science is important, not only to ensure that public monies are spent in the most effective way for pollution abatement, but also to ensure that abrupt changes in proposed limits are based upon science, instead of pressure from one side or the other. Attleboro's file review discloses that EPA is, understandably, under pressure to deliver something to RIDEM, so that RIDEM can obtain concessions from the industries that it regulates. See Exhibit 8 to this letter. But imposing burdens upon out-of-state municipalities, who are not represented in Rhode Island's process, must be based upon science and established regulations.



United States Environmental Protection Agency

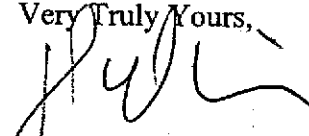
August 30, 2007

Page 8 of 9

desired. The EPA's procedure is therefore irregular. The City reserves its rights as well as its rights to submit additional comments, should EPA decide to follow 40 CFR 124.14.

Moreover, the City requests a hearing, to address the important issues raised above. See 40 CFR 124.11 and 124.12. Trying to deal indirectly through EPA with issues that are apparently driven by RIDEM is a difficult process, particularly as RIDEM may well comment on the revised draft limits, but the City is not presently privy to those comments, if any.

Very Truly Yours,



Douglas H. Wilkins

Cc (BY HAND): Linda M. Murphy (EPA)  
Glenn Haas (Mass. DEP)