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October 8, 2008

Via Hand Delivery

U.S. Environmental Protection Agency Clerk of the Board, Environmental Appeals Board Colorado Building 1341 G Street, N.W., Suite 600 Washington, DC 20005

Re:

In re: Upper Blackstone Pollution Abatement District

Millbury, Massachusetts NPDES Appeal No. 08-11

Dear Sir/Madam:

Enclosed please find one (1) original of a Supplemental Petition for Review from the Upper Blackstone Water Pollution Abatement District with respect to the above-referenced NPDES Appeal. A version of the same was filed electronically.

Very truly yours,

Nathan A. Stokes

NAS

Enclosures

cc:

USEPA Region 1

Fredric P. Andes, Esq. Erika K. Powers, Esq. Robert D. Cox, Jr., Esq. Norman E. Bartlett, II, Esq.

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

In re:)	
UPPER BLACKSTONE WATER POLLUTION ABATEMENT DISTRICT, MILLBURY, MASSACHUSETTS)	NPDES Appeal No. 08-11
NPDES Permit No. MA0102369))	

UPPER BLACKSTONE WATER POLLUTION ABATEMENT DISTRICT'S SUPPLEMENTAL PETITION FOR REVIEW

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TABLE OF CONTENTS

I.	INT	RODU	CTION	1
II.	PRC	CEDU	RAL BACKGROUND	2
III.	REL	EVAN'	T FACTUAL BACKGROUND	3
IV.	ARC	SUMEN	NT	4
	A.		dard of review	
	B.		mary of Argument	
	C.		on 1's Review Process For This NPDES Permit Is Riddled	
			Due Process Violations.	7
	D.		Nitrogen Limit Is Based On Clear Errors Of Fact And/Or	
			clusions Of Law.	11
		1.	Imposition Of The Total Nitrogen Effluent Limitations Is Not	
			Necessary To Attain The Applicable Water Quality Standards	11
		2.	Region 1's Interpretation of Rhode Island's Narrative Standard To	
			Impose A Numeric Effluent Limitation On Nitrogen In The Permit	
			Is Not In Accordance With The Clean Water Act Requirements	
			For Setting Water Quality Standards	16
		3.	Region 1's Interpretation Of Rhode Island's Narrative Standard To	
			Impose A Numeric Effluent Limitation On Nitrogen In The Permit	
			Violates Due Process	17
		4.	Region 1's Analysis Was Clearly In Error In Its Use Of Outdated,	
			Unreliable Data And Scientific Analysis, Rather Than Basing The	
		_	Limit On TMDL Calculations Or Other Credible Data	19
		5.	Region 1 And RIDEM Make Computational Errors In Determining	
			The Total Nitrogen Limit, Failing To Take Into Account Facts	• •
	177	701 T	Presented Which Demand A Different Total Nitrogen Limit	28
	E.		Phosphorus Limit Is Based On Clear Errors Of Fact And/Or	22
			Elusions Of Law.	32
		1.	Region 1 Relies On Irrelevant And Outdated Data To Establish	20
		2	The Phosphorus Limit In The Final Permit	32
		2.	<u> </u>	2.4
		3.	Authorized By Massachusetts Water Quality Standards The Region Selectively Presents Data To Support Its Position	
		<i>3</i> . 4.	Region 1 Refused To Consider The Model Developed By The	33
		т.	District, Did Not Adequately Consider Water Quality Models	
			Suggested By EPA's Science Advisory Board And Watershed	
			Action Plan	37
		5.	Region 1 Disregards Its Own Prior Study Of The Blackstone River	۱ د
		٠.	And Approaches Used In Other Massachusetts Studies Of Nutrient	
				39

Petition for Review of a NPDES Permit Issued by EPA Region 1 NPDES Permit No. MA0102369

	F.	The Winter Fecal Coliform Limit And Associated Year-Round	
		Disinfection Requirement Is Based On Clear Errors Of Fact	• •
	_	And/Or Conclusions Of Law.	39
	G.	Region 1's Refusal to Incorporate Compliance Schedules For The	
		Nitrogen And Phosphorus Limits In The Permit Is Arbitrary And	
		Capricious, An Abuse Of Discretion, And Not Supported by Law	44
	H.	The Sampling And Monitoring Requirements Are Unrealistic And	
		Over Burdensome	
		1. Whole Effluent Toxicity (WET) Testing	
		2. Outfalls 001 And 001A Wet Weather Discharge Testing	51
		3. Cold Weather Denitrification	
		4. Clarification Of Ammonia Limit	53
		5. Total Residual Chlorine	54
		6. Total Copper	54
		7. Total Cadmium	55
		8. Total Aluminum	55
		9. Total Lead	56
		10. Total Nickel	56
		11. Infiltration/Inflow Control Plan	57
	I.	The Board Should Grant Review Because This Matter Involves	
		Important Policy Considerations	57
		1. Improvements Implemented Under The Existing Permit And	
		Scheduled To Be Implemented Under The Existing Permit Were	
		Not Adequately Considered By Region 1 In Issuing The Final	
		Permit.	59
		2. Co-Permittees	
		3. The Final Permit Raises Significant Interstate/Trans-Boundary	
		Considerations	64
		4. Environmental justice policy considerations	
		5. Sustainability policy considerations	
		o. Sasamasini, poney constantations	
V.	CON	CLUSION	71

Petition for Review of a NPDES Permit Issued by EPA Region 1 NPDES Permit No. MA0102369

Exhibit A	Permit and the cover letter
Exhibit B	Upper Blackstone Water Pollution Abatement District's Public Comments
Exhibit C	2001 Settlement Agreement and Permit
Exhibit D	2002 Consent Order
Exhibit E	Response to Comments
Exhibit F	EPA Region 1 - Rhode Island Department of Environmental Management Performance Partnership Agreement, 2006-2007, Appendix B.
Exhibit G	Blackstone River HSPF Model Scenario Report
Exhibit H	Letter to EPA Region 1 from Upper Blackstone Water Pollution Abatement District, October 12, 2007
Exhibit I	Relevant Rhode Island Pollutant Discharge Elimination System Permits and Associated Consent Orders
Exhibit J	Chapter 752 of the Acts of 1968, Upper Blackstone Water Pollution Abatement District's enabling legislation.

I. INTRODUCTION

Pursuant to 40 C.F.R. § 124.19(a), the Upper Blackstone Water Pollution Abatement
District ("the District" or "UBWPAD"), through its undersigned representatives, respectfully
submits this supplemental petition for review of the final National Pollutant Discharge
Elimination System ("NPDES") Permit No. MA0102369 (the "New Permit" or "Permit") dated
August 22, 2008, issued by the United States Environmental Protection Agency ("EPA"), Region
1 ("Region 1" or "the Region"). (A copy of the Permit and the cover letter accompanying the
same are attached hereto as Exhibit A). Specifically, the District contests, among other issues,
the provisions in the Permit which set or include:

- (1) The total nitrogen limit of 5 mg/L (May 1-October 31);
- (2) The total phosphorus limit of 0.1 mg/L (April 1 October 31) and 1.0 mg/L (November 1 March 31);
- (3) The winter season fecal coliform limit and associated requirement to disinfect year round;
- (4) "Co-permittees" who were never previously identified as "permittees"; and
- (5) Other terms and provisions described herein.

For the reasons discussed in greater detail below, the District requests that the Environmental Appeals Board ("the Board" or "EAB") review the aforementioned contested provisions because they are based upon clearly erroneous findings of fact or conclusions of law, and/or involve an exercise of discretion or an important policy consideration that the Board

should, in its discretion, address. The issues raised in this petition were raised by the UBWPAD and/or other parties during the public comment period for the draft Permit, and Region 1 did not properly address or consider these issues in its Response to Comments or in issuing the final permit. Attached as Exhibit B to this petition are the District's Public Comments concerning these issues as well as selections of other pertinent comments in the record.

II. PROCEDURAL BACKGROUND

On May 24, 2007, the UBWPAD timely filed comments with Region 1 concerning certain conditions in the draft permit (the "Comments"). The Massachusetts Department of Environmental Protection ("MassDEP") has entered into an agreement with Region 1 to cooperatively process applications and jointly issue surface water discharge permits. However, when requested by Region 1 to certify the Permit, MassDEP instead chose not to participate in the Permit. Indeed, MassDEP is separately appealing and seeks a remand of the Permit to the Region for revision of the nitrogen limit because the state believes that the limit is too stringent and unjustified.

On September 15, 2008, the District filed its Initial Petition for review along with a scheduling motion, assented to by the Region. The Board granted the assented to scheduling motion and issued an order on September 23, 2008. By way of that order, the Board granted the District leave to file this Supplemental Petition. The District identified each term or provision of the Permit that it is appealing in its Initial Petition. Appended to this Supplemental Petition, at Attachment 1, is a list of the same terms and conditions, and the District hereby incorporates that

attachment and states that each term or provision identified by Attachment 1 is being appealed pursuant to 40 C.F.R. § 124.16(a)(1).

III. RELEVANT FACTUAL BACKGROUND

The District is a political subdivision of the Commonwealth of Massachusetts. The District owns and operates a Publicly Owned Treatment Works ("POTW") that treats wastewater from Worcester and eight surrounding communities ("the Facility"). The Facility has an address of 50 Route 20, Millbury, Massachusetts. Pursuant to the federal Clean Water Act ("CWA"), the District is authorized to discharge from the Facility to the Blackstone River pursuant to the terms of an NPDES permit issued on September 30, 1999, as modified by a settlement agreement dated December 19, 2001 (the "2001 Permit"). (A copy of the 2001 Permit is attached hereto as Exhibit C). In accordance with the settlement agreement, an administrative consent order (the "Consent Order") issued in 2002 with an 8-year compliance schedule, until August, 2009 to complete treatment plant upgrades and to meet many of the 2001 Permit limits, including a phosphorus limit of 0.75 mg/L. (A copy of the 2002 Consent Order is attached hereto as Exhibit D).

On November 8, 2005 the District submitted an updated renewal application to Region 1.

On March 23, 2007, Region 1 issued a draft NPDES permit. The District and many others submitted comments on the draft NPDES permit within the public comment period which concluded on May 25, 2007.

On August 22, 2008, Region 1 issued the Permit, along with its Response to Comments ("RTC") consisting of approximately 122 single spaced pages, not including charts and exhibits,

all of which was received by the District by certified mail on August 25, 2008. (A copy of the Response to Comments is attached hereto as <u>Exhibit E</u>).

The Permit's provisions, which have an effective date of October 1, 2008, conflict with the existing, enforceable compliance schedule established under the Consent Order and 2001 Permit. The 2001 Permit and Consent Order called for a discharge limit for phosphorus of 0.75 mg/L in summer, with no limit on total nitrogen. Based upon these limits, the District committed to upgrade its facility at a significant cost of approximately \$180 million. Those upgrades are underway and scheduled for completion in 2009. Without the benefit of bringing the upgraded facility on-line, and thereby allowing for any determination of the effectiveness of that upgrade on water quality, the Region has imposed new limits on phosphorus and total nitrogen.

IV. ARGUMENT

A. Standard of review

In proceedings under 40 C.F.R. § 124.19(a), the Board should review Region 1's decision on an NPDES permit when the petition for review establishes that the permit condition in question is based on a clearly erroneous finding of fact or conclusion of law, or involves an exercise of discretion or an important policy consideration that the Board determines warrants review. 40 C.F.R. § 124.19(a). *See also, e.g., In Re: District of Columbia Water and Sewer Authority*, NPDES Appeals Nos. 05-02, 07-10, 07-11 and 07-12, slip op. at 18, 13 E.A.D. ______ (EAB March 19, 2008).

B. Summary of Argument

In this matter, several conditions of the Permit are based upon clearly erroneous findings of fact and errors of law and implicate significant policy considerations. The entire process of

review was riddled with procedural errors, policy violations, failure to adhere to the Administrative Procedures Act and violations of Due Process. Moreover, the science used by the Region to justify the effluent limits is characterized by logical inconsistencies, outdated data, and computational errors. In light of these clear errors, the Board should vacate the Permit and remand it to Region 1 for new consideration.

The data relied upon by Region 1 in determining the nutrient (phosphorus and nitrogen) limits are outdated and do not account for recent and ongoing upgrades and permit adjustments to municipalities discharging to the Blackstone River. Equally troubling is that Region 1 has acted on outdated information with full knowledge of the fact that updated information with respect to the water quality of the Blackstone River was in development.

Under the CWA, the burden of proof to impose a water quality-based permit requirement is on Region 1, not the District, and Region 1 has not met its burden. Pursuant to 40 C.F.R. § 122.44(d)(1), a water quality-based permit requirement is justified only if it is determined that the discharge will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard. Since EPA has not made any showing that the contested limits in the Permit are needed to prevent violations of, or that they will lead to attainment of, Massachusetts or Rhode Island water quality standards, there is no legal basis for those limits.

The Region seeks to impose nutrient limits more stringent than those required by state law and more stringent than those that will soon be achieved by the District in 2009, based on insufficient or incorrect information, speculation and questionable scientific footing, which could cost the Blackstone River communities hundreds of millions of dollars without reaping

discernable water quality benefits. Without explanation, Region 1 appears to reject the recommendation by EPA's Science Advisory Board ("SAB") that prior to installing expensive treatment technology, a comprehensive study of the watershed should be conducted to determine the need for and the effectiveness of other controls including, among others, non-point source controls, removing contaminated sediments, and dam removal/modification.¹

Region 1 has failed to consider or to adequately explain how the proposed nutrient limits, which will cause the District to spend funds approaching \$200 million, with no guarantee or scientific evidence to demonstrate that it will work, meets the requirements of the MassDEP regulations which require that the treatment be the best practical. While costs are generally not given much weight in considering compliance with permit conditions, where, as here, the costs are wholly disproportionate to the benefits, if any, sought, the conditions should be deemed arbitrary and capricious.

The Permit is also rife with consideration of inappropriate matters. The irrational, arbitrary and capricious actions by Region 1 in proposing the challenged permit provisions, which would impose a severe financial hardship on the District's member communities, many of which contain Environmental Justice populations, deprive the District and the City of Worcester of the ability to resolve environmental, social, and economic issues in an effective and appropriate manner.

¹ See EPA Draft Science Advisory Board (SAB) Report: Evaluation of the Blackstone River Initiative, prepared by the Ecological Processes and Effects Committee, EPA-SAB-EPEC-98-XX, June 25, 1998; and An SAB Report: Evaluation of the Blackstone River Initiative, EPA-SAB-EPEC-98-011, September 1998.

The facts and circumstances outlined in this Petition establish that Region 1 insisted upon the issuance of the contested permit provisions and make it plain that these contested Permit provisions are clearly based on errors of fact and/or law. Accordingly, the Board should review the contested Permit conditions.

C. Region 1's Review Process For This NPDES Permit Is Riddled With Due Process Violations.

The NPDES permit issued by Region 1 to the District should be vacated because the entire process of review was riddled with procedural errors, violations of the Administrative Procedures Act ("APA") and violations of Due Process. Characteristic of this disregard for procedural fairness were the ex parte discussions between Region 1 and Rhode Island Department of Environmental Management ("RIDEM") regarding effluent limits for the District's permit. NPDES permits are licenses under the APA. 5 U.S.C. § 551. As such, the proceedings for decision-making on its terms and issuance are governed by 5 U.S.C. § 556-557. See 5 U.S.C § 558. The APA clearly prohibits ex parte communications in the context of a permit decision process:

[N]o member of the body comprising the agency... who is or may reasonably be expected to be involved in the decisional process of the proceeding, shall make or knowingly cause to be made to any interested person outside the agency an exparte communication relevant to the merits of the proceeding.

5 U.S.C. § 557(d)(1)(B).

The discussions between the Region and RIDEM, held in the context of the Fiscal Year 2006-2007 Performance Partnership Agreement between Region 1 and RIDEM ("PPA"), included a table of specific effluent limits proposed by Rhode Island and accepted by Region 1 to

Petition for Review of a NPDES Permit Issued by EPA Region 1 NPDES Permit No. MA0102369

be imposed on facilities in Massachusetts, including a 5.0 mg/L total nitrogen limit for the District. (A copy of Appendix B of this agreement is attached hereto as Exhibit F.) Region 1 notes MassDEP's objection to the establishment of limits and yet nonetheless goes on to strongly endorse the effluent limits proposed by RIDEM:

[I]t is even more apparent that implementation of the loading reductions proposed by DEM are necessary to ensure substantial progress toward achieving water quality criteria in the Seekonk River Providence River and Upper Narragansett Bay, and should not be delayed.

PPA, Appendix B, p. 106.

This is a substantive discussion as to the merits of the District's permit and related proceedings. The PPA, though finalized in January 2006, covers the period from July 1, 2005 to June 30, 2007. Thus, it appears the discussions between Region 1 and RIDEM of the District's nitrogen limit began before the submittal of the District's permit renewal application in November, 2005. As the District's renewal application submittal was certainly anticipated by the Region, the ex parte communications with RIDEM were already prohibited. As the APA states:

[T]he prohibitions of this subsection shall apply beginning at such time as the agency may designate, but in no case shall they begin to apply later than the time at which a proceeding is noticed for hearing unless the person responsible for the communication has knowledge that it will be noticed, in which case the prohibitions shall apply beginning at the time of his acquisition of such knowledge.

5 U.S.C. § 557(d)(1)(E).

Since submittal of a renewal application is required 180 days in advance of the expiration of the existing permit, the Region had the requisite knowledge to trigger a ban on exparte

communications. 40 C.F.R. § 122.21(d)(1). The Region is certainly free to discuss policy matters with sister state agencies and to discuss in general terms the types of actions that they might accomplish in partnership with one another. Prior PPAs between RIDEM and Region 1 did just that. But the discussions of and resulting Fiscal Year 2006-2007 PPA crossed the line into forbidden ex parte communications. Although some emails indicating the nature of the discussions between RIDEM and Region 1 were made a part of the record of the permit renewal (as required by 5 U.S.C. § 557(d)(1)(C)), the discussions contaminated the whole permit decision process, giving the impression that the Region had decided on the District's permit limits based on RIDEM's recommendations likely before the District had even submitted its permit renewal application.

While this is likely the most egregious example of the process errors committed by the Region, it is far from alone. The Region has essentially used this process to promulgate a numerical water quality standard for Rhode Island without any of the procedural safeguards usually afforded to rulemaking. Imposing this interpretation of Rhode Island's narrative water quality standards is contrary to law. Among other things, it deprives the District and its ratepayers of their due process rights to an adequate, meaningful opportunity to be informed of, and to participate in, the rulemaking process for the standards. This opportunity is especially critical given that Massachusetts residents did not have the chance to participate in the Rhode Island rulemaking for the narrative standard upon which the total nitrogen limits are purportedly based. The Region's attempts to impose its own interpretation of state water quality standards,

and its failure to respect and address the MassDEP's objections and concerns regarding Region
1's proposed numeric nitrogen limits and conditions, violate constitutional federalism principles.

Moreover, it seems that the Region was more interested in issuing a permit quickly than making sure that the Permit was based on an accurate understanding of water quality issues. On May 18, 2007, the District submitted a request for an extension of the public comment period to December 31, 2007 to allow sufficient time to complete an improved, more robust water quality model of the Blackstone River watershed and generate model results which are critical to making an informed decision and developing scientifically defensible permit limits for nitrogen and phosphorus. (Attached as Exhibit G is a summary of the latest results from this model.) On May 23, 2007, the Region denied this request, noting that the District's request does not include any discussion as to how, or even if, its model could be used to establish point source permit limits that "will ensure attainment of water quality standards in the Blackstone River and in Narragansett Bay." But in the absence of an accurate model of the receiving waters, the Region cannot itself ensure attainment of water quality standards.

Throughout the period between issuance of the draft Permit in March, 2007 and now, the District has repeatedly requested the opportunity to meet with Region 1 to discuss the significant factual, legal, and policy issues that were raised by the draft Permit. Region 1 has rejected those requests.² Especially in light of the Region's willingness to discuss the District's permit with other parties, this refusal to discuss the permit with the applicant is troubling. However, it is characteristic of this whole process, which has been marked by procedural deficiencies and

See District's May 24, 2007 comment letter, <u>Exhibit B</u>, p. 3 of 3; letter from District's counsel, letter dated October 12, 2007, requesting reconsideration of decision not to meet with District; attached as <u>Exhibit H</u>.

errors. If only for this reason, the Board should vacate the Permit and require the Region to begin the permitting process anew.

D. The Nitrogen Limit Is Based On Clear Errors Of Fact And/Or Conclusions Of Law.

The total nitrogen limits imposed in the Permit by Region 1 should be vacated and remanded to the region. The determination of such limits should be based on accepted, reliable data and analysis, or if such is not currently available, deferred to the future completion of a total maximum daily load ("TMDL"). MassDEP has declined to impose the total nitrogen limit contained in the Permit, nor does it support this limit. This unusual step underscores the flawed nature of the methodology used to arrive at the limit imposed. The Permit's total nitrogen limit rests upon an approach that is unsupported by the CWA, that Massachusetts regulators contest, and that science cannot justify. For these reasons, as further detailed below, the Board should vacate the total nitrogen limit.

1. Imposition Of The Total Nitrogen Effluent Limitations Is Not Necessary To Attain The Applicable Water Quality Standards

Region 1 has no evidence that imposition of the numeric effluent limitations for total nitrogen will lead to attainment of narrative Rhode Island water quality standards in Narragansett Bay (also "the Bay"). In fact, as discussed in detail below, Region 1 acknowledges in the Response to Comments that the more stringent limits very well may <u>not</u> lead to standards attainment. Thus, the limits are not necessary to attain standards, and therefore not authorized by the CWA.

As Region 1 states in the Fact Sheet to the Permit, section 303(b)(1)(C) of the CWA requires NPDES permits to contain:

any more stringent limitation, including those <u>necessary</u> to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations (under authority preserved by section 1370 of this title) or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to this chapter.

33 U.S.C. § 1311(b)(1)(C) [emphasis added].

Similarly, section 101(a)(2) of the CWA establishes a national goal that "wherever attainable," water quality standards shall be set to protect aquatic life and recreational uses. 33 U.S.C. § 1251(a)(2).

Each of these provisions plays an important role in the process of establishing effluent limitations, and the water quality standards upon which they are based. To be legitimate, standards must be attainable. Further, effluent limitations must be necessary to achieve attainable standards. However, in this situation, Region 1 has failed to establish that the effluent limitations for total nitrogen are necessary to achieve appropriate and attainable water quality standards for nutrients in the Blackstone River and the waterways downstream to the Narragansett Bay.

The nitrogen limits in the Permit are derived from Region 1's interpretation of each state's narrative water quality criteria for cultural eutrophication. As described in greater detail in other sections of this petition, the EPA-derived nitrogen water quality standards are not appropriate for this particular water system. As a result, these criteria, if used as effluent limits, will not be attainable, and also have no relation to protecting important uses of those waters.

Furthermore, the Region-derived nitrogen water quality limits will not be met due to other sources contributing to nutrient loadings in the water system. In its Response to Comments, Region 1 acknowledges that other sources are contributing to nutrient loadings, and yet failed to adequately account for these contributions. The Region states the following concerning other non-point source nutrient loadings:

While UBWPAD and Woonsocket discharges represent the vast majority of the nitrogen loadings in the Blackstone River there are other sources of nitrogen to the river. Accounting for these other sources would result in an increase in the estimated attenuation rate.

Response to Comments, Response #18D, p. 53 (Hereinafter, "RTC, R#__, p._").

While the District disagrees with the Region's characterization of the District's relative contribution of loadings, it is notable that Region 1 admits other sources do contribute to loadings. However, Region 1 makes no effort to address these other sources, which are relevant in at least two respects. First, the presence of other sources indicates that there is greater attenuation than has been assumed in the Region's analysis. Furthermore, these other sources also prevent the water system from meeting standards. Yet, Region 1 has ignored those facts in establishing the permit limits.

Furthermore, other point source dischargers are and will continue to frustrate attainment of the Region 1-derived nutrient standards. Although it might appear that most dischargers in Rhode Island have accepted permit limits comparable to those in the District's permit, careful inspection suggests that it will be many years before the limits will be achieved, if ever. Rather, the consent agreements implementing the Rhode Island limits provide substantial time for compliance, and also provide for consideration of data that might defer achievement of the limit

Petition for Review of a NPDES Permit Issued by EPA Region 1 NPDES Permit No. MA0102369

far off into the future. *See Exhibit I*, Relevant Rhode Island Pollutant Discharge Elimination System Permits and Associated Consent Orders.

	May to October Total Nitrogen Effluent Limits
NBC - Bucklin	5.0 mg/L
East Providence	5.0 mg/L
NBC - Fields Point	5.0 mg/L
Woonsocket	8.0 mg/L
Cranston	8.0 mg/L
Warwick	8.0 mg/L
West Warwick	8.0 mg/L
UBWPAD	5.0 mg/L

In its Response to Comments, Region 1 makes much of the fact that it is not required to wait until a TMDL is developed to implement effluent limitations in NPDES permits; the District does not contest this position. However, the District does object to the Region's decision to move forward with the particular effluent limitations in the final permit, because those limits are not supported by sufficient scientific evidence. In its Response to Comments, Region 1 acknowledges that TMDLs are very difficult to develop for nutrients:

[A] nitrogen TMDL for Narragansett Bay has proven to be very difficult to develop, as demonstrated by the extensive resources expended to date and the documented complexities of the Upper Narragansett Bay system. ... As described in the RIDEM 2004 Evaluation, It has recently been determined that due to problems encountered when modeling the interaction between deep channel and shallow flanks of these water bodies, the mass transport component of the system cannot be successfully calibrated and validated. This problem has been encountered in other estuaries and has not been resolved with state of the art numerical solution techniques. Because water doesn't mix in the model as it does in the rivers, we are unable to simulate the chemical and biological behavior of the system in the water quality phase of the modeling effort.

RTC, R#E3, pp 20-21.

However, the Region failed to consider the important fact that the process for establishing appropriate effluent limitations is the same as that needed to develop TMDLs. For example, EPA guidance to permit writers indicates that a wasteload allocation should be determined for the permittee that considers other point and nonpoint sources, and that water quality-based effluent limits should be derived using appropriate water quality models. See U.S. EPA NPDES Permit Writers' Manual, EPA-833-B-96-003 (Dec. 1996), p. 104 ("Before calculating a WOBEL, the permit writer must first determine the point source's wasteload allocation (WLA). The WLA is the fraction of a total maximum daily load (TMDL) for the water body that is assigned to the point source.") Thus, if it is very difficult to develop a TMDL for nutrients, Region 1 cannot use a lesser process to develop numeric permit limits and expect that those limits will be appropriate. If the Region cannot conduct a valid technical analysis, it cannot justify its regulatory action. Yet, despite these admissions, Region 1 has decided to impose binding, enforceable permit limits on the District, without sufficient technical basis to determine whether such limits are appropriate and necessary to address impairments to waterways within Massachusetts or Rhode Island. This action is particularly troubling because once a limit is established in a permit, it becomes very difficult to revise or remove that limit, even when newer information demonstrates that the limit was not appropriate or justified. As a result, it is essential that the Region follow the appropriate procedures using a valid technical analysis in making decisions about establishing permit limits. Region 1 has failed to do so regarding the total nitrogen limit in this permit, and thus, the limit should be vacated.

2. Region 1's Interpretation of Rhode Island's Narrative Standard To Impose A Numeric Effluent Limitation On Nitrogen In The Permit Is Not In Accordance With The Clean Water Act Requirements For Setting Water Quality Standards

The nitrogen limits in the Permit are not based upon EPA-approved numeric water quality criteria adopted by either Massachusetts or Rhode Island. Instead, Region 1 imposed the limits based upon a determination that such limits are necessary to protect Rhode Island's narrative water quality criteria for cultural eutrophication. Region 1 derived the limits through its own interpretation of the Rhode Island narrative standards. As discussed in further detail below, UBWPAD contests the scientific basis of the limits. Furthermore, Region 1 has not followed the appropriate CWA requirement for federal adoption of water quality standards. Section 303(c) of the CWA specifies the sole grounds for EPA to adopt water quality standards for a state, and it states in relevant part:

The Administrator shall promptly prepare and publish proposed regulations setting forth a revised or new water quality standard for the navigable waters involved ... in any case where the Administrator determines that a revised or new standard is necessary to meet the requirements of this chapter.

33 U.S.C. §1313(c)(4).

Publication includes placing a notice in the Federal Register and affording the public the opportunity to submit comments on the proposal. Furthermore, if parties believe that EPA's action is unjustified, they may appeal EPA's action pursuant to the relevant appeals procedures in the CWA. As it concerns Region 1's imposition of a nitrogen numeric translator for Rhode Island's narrative cultural eutrophication standard, the Region has clearly not followed the CWA