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

In re:	:	
	:	
CITY OF ATTLEBORO, MA,	:	NPDES Appeal Nos. 08-08
WASTEWATER TREATMENT PLANT	:	08-09
	:	
PERMIT MA 0100595	:	

ORIGINAL

1201 Constitution Avenue, NW
Washington, D.C.

Thursday, December 18, 2008

The above-entitled matter came on

for ORAL ARGUMENT at approximately 10:00 a.m.

BEFORE:

CHARLES SHEEHAN
EDWARD E. REICH
KATIE A. STEIN

APPEARANCES:

On behalf of State of Rhode Island:

SUSAN B. FORCIER, ESQUIRE
Rhode Island Department of Environmental Management
Office of Legal Counsel
235 Promenade Street, 4th Floor
Providence, Rhode Island 02908-5767
(401) 222-6607

On behalf of City of Attleboro:

DOUGLAS H. WILKINS, ESQUIRE
Anderson & Kreiger, LLP
One Canal Park, Suite 200
Cambridge, Massachusetts 02141
(617) 621-6500

On behalf of Environmental Protection Agency:

SAMIR BUKHARI, ESQUIRE
PETER FORD, ESQUIRE
Office of Regional Counsel
U.S. EPA, Region 1
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-0223
(617) 910-1091

ALSO PRESENT:

Eurika Durr
Jonathan Zilinski

* * * * *

P R O C E E D I N G S

MS. DURR: The Environmental Appeals Board of the United States Environmental Protection Agency is now in session for oral argument in re: City of Attleboro, Massachusetts, Wastewater Treatment Plan, Permit No. MA0100595, NPDES Appeal Nos. 08-08 and 08-09, the Honorable Judges Charles Sheehan, Ed Reich, Katie Stein presiding.

Please turn off all cell phones and recording devices.

Please be seated.

JUDGE REICH: Good morning. The Board is hearing oral argument this morning in the matter of City of Attleboro and NPDES Permit Appeal pursuant to the Board's order of October 15, 2008. This morning, we will follow the order set forth in the Board's October 15, 2008 order regarding oral argument.

Rhode Island has been allocated 10 minutes for its argument, and may, if it chooses, reserve at the beginning of its

argument up to five minutes for rebuttal. The City of Attleboro has been allocated 25 minutes for its argument, and similarly may, if it chooses, reserve at the beginning of its argument up to five minutes for rebuttal. Then the Region will be afforded 35 minutes for its argument, followed by rebuttal, if any, from Rhode Island and the City.

I'd like to begin by asking counsel to state their names for the record and whom they represent, proceeding in the order in which they will be arguing, beginning with Rhode Island.

MS. FORCIER: Susan Forcier, Rhode Island Department of Environmental Management.

JUDGE REICH: Thank you.

MR. WILKINS: Good morning, Your Honors. My name is Douglas Wilkins from the firm of Anderson & Kreiger, representing the City of Attleboro.

MR. BUKHARI: Your Honor, my name is Samir Bukhari. I represent the Region in this

matter, and I'm joined today by Pete Ford of the Office of General Counsel.

JUDGE REICH: Okay, thank you.

Ms. Forcier, you can proceed.

MS. FORCIER: Thank you. Good morning, Your Honors. Before I start, I'd like to reserve five minutes for rebuttal, if I may.

JUDGE REICH: Yes.

MS. FORCIER: Thank you. And I want to thank the Board for hearing from the State of Rhode Island this morning. There are some issues here that concern the state that we'd just like to address, if I can.

This facility, as you know, is an 8.6 million gallon a day facility discharging into the Ten Mile River approximately 200 yards north of the Rhode Island border. That Ten Mile River, along with the Turner Reservoir and Seekonk River where it discharges, are currently deemed impaired for various constituents. And the Seekonk River is marine water, where nitrogen is the

limiting nutrient. And because of this, the Region tailored the nitrogen limit in this permit to achieve compliance with Rhode Island water quality standards.

DEM supports the nitrogen limit imposed in the permit of 8 milligrams per liter, as it's equivalent to the limits Rhode Island has been imposing on its instate facilities. Excuse me. Rhode Island noted in a 2004 evaluation report cited by the Region in providing its justification for the limit that the appropriate wastewater treatment facility total nitrogen concentrations varied based on the environmental impact of the facility.

And that's to say with regards to Narragansett Bay, that this means that larger facilities discharging relatively greater amounts of nitrogen into more severely impacted upper reaches of the system are held to a stricter standard of 5 or 3 milligrams per liter, while relatively smaller

facilities discharging directly to the Providence River or the Bay have been held -- where the flushing rate is higher -- can be held to a less stringent standard of 8.

RIDEM has issued instate permits consistent with that line of reasoning, and we believe the Region has appropriately done the same here.

I'd also like to express DEM's support on the record for the Region's determination of the phosphorous limit in this permit. The draft permit, as you can see from the record, was initially issued with a phosphorous limit of .2 milligrams per liter, but in the urging of DEM, the Region pulled back that draft and reissued it with a more stringent .1 milligram per liter limit in August of 2007. And that limit has remained in this final permit.

The Region, of course, has the duty to ensure that Rhode Island water quality

standards are met at the Rhode Island border, and in this case, that line closely corresponds with the Turner Reservoir, which DEM considers a lake for purposes of our water quality standards.

JUDGE REICH: While you're on that then, Attleboro cites your comments on the draft permit, and it's quoted at page 42 of the Response to Comments, where the state does seem to talk about the criteria in the Federal Guidance Manual and indicates that the Turner Reservoir meets those criteria. And they infer from that that you agree that those are the relevant criteria for defining where the lake is for Rhode Island purposes. Is that a correct reading of Rhode Island's position?

MS. FORCIER: In our water quality standards, we do list the Turner Reservoir as a freshwater lake.

JUDGE REICH: Based on the Agency's guidance or based on Rhode Island's own definition of lake?

MS. FORCIER: I think it's on Rhode Island's definition of a lake, Your Honor, where based on the residence time. We follow the 7Q10 flow so that for impounded -- excuse me, for river impoundments and effluent-dominated water bodies such as the Turner Reservoir, we would use 7Q10 as opposed to -- as the City proposed, excuse me, a seasonal or annual average.

JUDGE REICH: Is residence time part of the definition of lake under the Rhode Island law?

MS. FORCIER: I believe it is. I would have to look back in our regulations, but I believe it is.

JUDGE SHEEHAN: Okay. So in that vein, how did the City of Attleboro get it wrong?

MS. FORCIER: Excuse me?

JUDGE SHEEHAN: How did the City of Attleboro get it wrong in terms of how it classified Turner?

MS. FORCIER: I think the City has

proposed that we use a seasonal average or an annual average as opposed to the 7Q10 in evaluating whether the criteria has been met. And it's Rhode Island's position that because this is a river impoundment and because it's largely effluent-dominated, that the 7Q10 should be applied as opposed to an annual or a seasonal average.

JUDGE REICH: In terms of the 303(d) listing, the Region at least indicates that you identified that as an impaired lake in that listing. In looking at the listing itself, I could not see where it was identified as a lake. I could see where it was identified as impaired, but not necessarily as a lake. Do you think it was identified as a lake in the 303(d) listing, and if so, can you help me find where that is?

MS. FORCIER: Yes, I believe it was. I would need to look at the listing again to direct your attention, I guess. But I know that the Agency has always interpreted it to be a lake, and has always interpreted the 303(d) list

to classify it that way.

JUDGE REICH: The 303(d) list itself, at least the pages I'm looking at, Group 2, use the word reservoir. Turner Reservoir. No use of the word lake.

MS. FORCIER: We treat lakes and reservoirs the same for the purpose of the criteria.

I think our nutrient criteria refers to lakes, ponds, kettle holes and reservoirs -- I believe is the language.

JUDGE REICH: So you think because -- I mean, that's part of the name, though, right? That because it's part of the name of the Turner Reservoir, that that in and of itself means we should infer that you're classifying it as a lake?

MS. FORCIER: Not strictly based on the name, no.

JUDGE REICH: I mean, looking at the list, basically the columns I see are water body ID, name description, and the name/description

just basically describes Turner Reservoir south of Newman Avenue Dam, East Providence. Water body size, water quality classification, causes, calendar year for target MD year, MDL, and target for MDL comment. And nowhere in there did I see any reference to a descriptor calling it a lake. So I just wasn't sure how much the 303(d) listing really supported the idea that you've identified it as a lake. I'm not saying you haven't, I'm just focused on whether this document itself does that.

MS. FORCIER: If it's not entirely clear from that document, I think that perhaps other DEM publications might make it clearer that that's the way that we've consistently treated the Turner Reservoir.

JUDGE REICH: Thank you.

MS. FORCIER: Thank you. So the Region appropriately applied that same requirement here of using the 7Q10 flow that the State uses in accordance with its duty to ensure the compliance with our water quality standards.

As I said, seasonal or annual averages might be appropriate in a more typical lake that is not a river impoundment and is not effluent-dominated, but in this case, RIDEM has consistently applied 7Q10 for this and other water bodies that we consider to be river impoundments that are effluent-dominated.

JUDGE REICH: Can I ask some questions? We didn't give you -- I know, all that much time, in part because your appeal was more narrowly focused and because you were not an intervenor in Attleboro's appeal, where they were in yours. But let me ask you first a few questions related to the actual substance of your appeal. And then I had a couple of questions relating to positions that Attleboro has ascribed to Rhode Island.

But in terms of the issue of whether the Region should have considered the data that came out of the 2007-2008 sampling in the Ten Mile River watershed, do you know

at the time of the first comment period on the draft permit whether it was clear that such a sampling program was going to go forward? Was the Agency aware? Was Rhode Island aware that there would be this sampling program back in 2006, which was the first comment period for the permit?

If you don't know, you can say so.

MS. FORCIER: I'm trying to recall the exact dates that the study was being put together and approved, and I can't recall off the top of my head what those dates are.

JUDGE REICH: So you don't know whether the Region had any reason during the first comment period to know that there was this plan for subsequent testing?

MS. FORCIER: I believe they did, but I would need to, again, check those dates. I don't have them in front of me right now.

JUDGE REICH: Do you think there's something in the record that would clearly identify that?

MS. FORCIER: I believe that there is. But again, I need to check the dates again.

I'm sorry.

JUDGE SHEEHAN: Okay. Do you know the data -- as I understand it, the only place in the Region that's been identified as having the actual data itself was the Chelmsford Lab. Do you know whether the data in the form that they had it at the lab was directly usable for setting the permit limit, or were there subsequent steps by way of analysis, correlation, QA/QC that needed to take place before that data itself could be used in developing the effluent limitations?

MS. FORCIER: Obviously, QA/QC has to take place before the data can be relied on.

JUDGE REICH: So the Region could not have used the data that the Chelmsford Lab had until that took place.

MS. FORCIER: I think that the administrative record remains open until the permit is issued. And so whether at the initial

time that the data was submitted to the lab it hadn't gone through the QA/QC yet to allow it to be relied on, but subsequent to that, I think the data was ready and usable prior to the permit being issued, and should have been relied on.

JUDGE REICH: Are you aware of any occasion in the record where Rhode Island raised the question of whether the Agency should be proceeding without considering this data?

MS. FORCIER: I'm not sure I understand the question, Your Honor.

JUDGE REICH: I mean, obviously, Rhode Island was aware this data was being generated. Obviously, Rhode Island thought and thinks this data is relevant. Did Rhode Island at any point prior to permit issuance come back to the Region and say you need to wait, you need to look at this data, you need to reopen the comment period -- something before you issue the final permit? Or are you saying that the Agency should have known to do that on its own initiative?

MS. FORCIER: The State of Massachusetts, who was an issuer of this permit, as well as the Region, were both aware that the study was being undertaken at the time the whole permit process was proceeding. And I think that in our comment letter, we did make reference to other data showing lower hardness limits in the downstream waters as opposed to --

JUDGE REICH: But not this data.

MS. FORCIER: I don't know whether we specifically referred to this data, but we did comment that there were lower hardness values observed downstream.

JUDGE REICH: I think at the time of your comment letter, this data wouldn't have existed, because that would have been during the first comment period, which predated the generation of this data.

The data that -- you did allude to values typically observed in Rhode Island waters. Did you actually submit any data?

MS. FORCIER: There were a couple of

tables attached with our comment letter that I think included certain numbers that we more typically see in some calculations using those numbers.

JUDGE REICH: Hardness levels, do you think?

MS. FORCIER: That's right.

JUDGE REICH: So if it's anywhere, it would be in the tables that are attached to the comment letter?

MS. FORCIER: I believe so, Your Honor.

JUDGE REICH: Okay.

JUDGE SHEEHAN: Do you think that knowing -- the State of Rhode Island knowing that this joint water sampling data was underway -- this generation of it was underway -- did the State have any obligation, knowing that, to plant a flag with the Region and say this is coming, you need to take account of it, be watching for it? And otherwise, very clearly signal to the Region to take this into

account?

MS. FORCIER: Potentially --

JUDGE SHEEHAN: See, the Region should have known, but did Rhode Island have an obligation itself to plant that flag?

MS. FORCIER: I think that the Region was already aware of it, as was the State of Massachusetts. And I think that our comment letter raising the fact that lower hardness levels had been observed and should be adhered to did that.

JUDGE REICH: When you say the Region was aware, do you mean the lab was aware, or do you have reason to believe that someone outside the lab was aware?

MS. FORCIER: The Region did approve the whole study that took place.

JUDGE REICH: Who approved it? Do you know?

MS. FORCIER: I'm not sure off the top of my head. I would have to find the approval sheet. I know there was --

JUDGE REICH: Is the approval sheet part of the record?

MS. FORCIER: I'm not sure. I have to go back and check again. I'm sorry.

JUDGE REICH: In your comments, I think one of the things you did, as I recall, was demonstrate that water quality standards would not be met if you used this 100 milligram per liter hardness value. The Region in its response to comments put forth two factors that they thought you had not considered that would in essence undercut the argument you were making.

I don't remember seeing a response to that in your petition. Did I miss something?

MS. FORCIER: I think that mainly what the Region's response did was justify that they were using values from above the North Attleboro facility here. And those numbers weren't representative of the receiving waters.

JUDGE REICH: But to the extent that

they also took issue with your analysis, you did not respond -- you did not address that in your petition I don't believe.

MS. FORCIER: I'm not sure exactly which criticism you're referring to from the Response to Comments.

JUDGE REICH: Any questions on that aspect? Otherwise, I have a couple on something not related.

JUDGE SHEEHAN: No.

JUDGE REICH: Let me take advantage of the fact that you're there to ask you just a couple of questions, if you happen to know, because they tend to be things where Attleboro ascribes to Rhode Island to a certain position or raises questions that I think it's helpful to have your perspective on.

The phosphorous level is defined as average total phosphorous shall not exceed. What does the word "average" mean in that context? They challenge, I think, the use of 7Q10 conditions as not being average. I

think you indicated that typically, you do use 7Q10 conditions. And so I was wondering what the State meant when it says average total phosphorous, and whether that was necessarily inconsistent with use of 7Q10.

MS. FORCIER: Our water quality standards require us to evaluate at critical conditions. And that's the basis for us generally using 7Q10. And I believe in most instances, that's evaluated on a monthly average.

JUDGE REICH: So you think the word average has to be qualified by -- I think it's Rule 8(e) that requires you to look at the most critical conditions.

MS. FORCIER: Right.

JUDGE REICH: Okay. Final thing that I have, at least, is the City claims that your comments on -- the September 12, 2006 comments in essence endorse the idea that waste load allocations are required in setting water quality-based effluent limitations. And they

specifically reference Rule 7 as contemplating a waste load allocation approach. Is that, in fact, Rhode Island's position?

MS. FORCIER: Can you repeat the question again?

JUDGE REICH: In essence, what I'm saying is Attleboro has said that Rhode Island takes the position, which they are advocating, that some kind of waste load allocation is required in setting water quality-based emission limitations or effluent limitations. And I'm asking whether that is in fact Rhode Island's position.

MS. FORCIER: No, I don't think that it is. I think our position is that you can't always wait for allocations to be put in place, and you can't delay setting limits in attempting to achieve compliance with our standards until something is put in place.

JUDGE REICH: Okay.

JUDGE SHEEHAN: No.

JUDGE REICH: Okay, thank you.

MS. FORCIER: Thank you.

MR. WILKINS: Good morning.

May it please the Board, Doug Wilkins for the City of Attleboro. I would like to reserve five minutes for rebuttal.

JUDGE REICH: Yes, sir.

MR. WILKINS: I will address three issues primarily. One is the nitrogen issue relating to the marine waters -- the Seekonk River first, then followed by the Providence River, and the Narragansett Bay. I will address the phosphorous relating to the freshwaters, and I will also address the metals limit.

I will expressly waive the argument on page 31 of our brief that a compliance schedule should have been set up. The Region has made clear in its comments that it's willing to entertain discussions about an enforcement order if in fact that becomes necessary.

And so we're willing to take the Region at its word on that.

JUDGE REICH: When you say waive, are you saying that you're in essence withdrawing it from the petition?

MR. WILKINS: On that issue, yes.

JUDGE REICH: On that issue. So it's not just you're not going to argue it; you're in essence withdrawing it.

MR. WILKINS: Yes, I'm asking for no decision from this Board, and we're willing to allow the Region's action on that discreet aspect to go into effect.

JUDGE REICH: Okay, thank you.

MR. WILKINS: Now, beginning with nitrogen, we made some general arguments and some specific ones. I realize that the specific ones are more persuasive at the appellate level. But I do want to pause for a moment, because there's a general theme to our argument, which is that we need to be sure that the limits we're subjected to are based on sound science. It's part of the relationship, I think, between the regulator and the permittee.

The regulator is supposed to, by statute, and also according to the Response to Comments, set limits that are necessary. That is neither too strict no too lax. And from the permittee's standpoint, it's very important to have some degree of certainty. The kind of degree of certainty that we could get from a TMDL. We could get that from a waste load allocation. But at the minimum, what we're urging is that sound science be applied here.

Now, on the nitrogen question, there are three areas where the Region has departed, we think, significantly and reversibly from the requirements of the Clean Water Act. As you know, the Region primarily based its nitrogen levels on the study by the Marine Ecology Research Lab, or MERL. And yet when you look at what the Region says about that study and when you look at the study itself, it only addresses general scientific principles relating, to be sure,

to waters that were tested in this estuary's own system.

It does stand for the proposition that nitrogen affects eutrophication. But when you test that against the in-stream conditions -- and RIDEM admits this, so does EPA -- that you find that there's a significantly lower nitrogen concentration than the model would have predicted.

And so the basic question is whether these experiments can be applied to this particular discharge at all.

JUDGE SHEEHAN: Wasn't the MERL model peer reviewed?

MR. WILKINS: Yes. I'm not suggesting that it's unsound as general science. What I'm suggesting is that there's no nexus. There's no criteria that allow that model to be applied to our discharge into these particular waters and come up with a number.

JUDGE SHEEHAN: So you seek a mathematical model instead?

MR. WILKINS: Well, I will take any model that doesn't have the kind of deficiencies that I'm about to outline. I think it's going to have to be for the Region to figure it out.

But the fact that -- they say that you cannot -- the system is too complicated to come up with a mathematical model. And yet they do cite a model. They cite the Kester model in their comments relating to dissolved oxygen.

So there's an inherent contradiction in what the Region is saying here.

JUDGE REICH: But if they've said -- which I think they did -- that a model might be usable for certain pollutants but not others, why is that inherently a contradiction?

MR. WILKINS: Because the model -- the Kester model does refer to nutrients. It takes about modeling nutrients, not just dissolved oxygen.

The Region's response to our

petition suggested that this was a model that was relating to dissolved oxygen. And that's just too limited a view of what the Kester model is about.

JUDGE SHEEHAN: But hadn't the Region wrestled for years with the mathematical model or something of that stringency with respect to Narragansett Bay, and just found that it was impractical, did not work given the complexities?

MR. WILKINS: Well, that's what they say, but then they cite a model. That leaves us throwing our hands up to say, you know, is the Kester model good or not? It is not limited to dissolved oxygen.

I think that's the key point about it for the purposes of this appeal. You know, the Board may have questions of me, but I think all the questions relating to the applicability of that model remain unanswered because they were not explored on the record. This was something that showed up in the

Response to Comments. It was not previously subject to our comment.

Now, the other, we think, very significant error that was made by the Region relates to dilution factors. And of course, that plays into the regulations under which the Region is supposed to operate. It plays into the scientific applicability of various models. It is one of the reasons -- dilution and attenuation -- why the MERL model does not in fact predict in-stream conditions.

The dilution in the MERL model was based on 27 days of full dilution. The Seekonk River, into which our discharge finds its way first in terms of marine waters, has a turnover of 1.2 days on average.

And if you look at the studies that the Region cited, even if you exclude any freshwater at all -- so 7Q10 may have at least a little bit of freshwater -- but you have 3.5 days. That's a huge factor by which the MERL model overstates the contribution of

our plant to these waters. And if you do the math, you come out with -- it's an overstatement by a factor of 22 on the average, and it's a factor of 7.8 if you look only at the so-called 7Q10 conditions.

Now, on its surface, the Region seems to say, well, we use the 10X approach based on MERL. MERL had a unit of nitrogen that was induced into the system, and then it did factors -- increasing factors of that and saw what the results were.

And Region 1 says that somewhere around 2 to 4X is the key. But if you divide the 10X by 7.8, you're well below that factor. And it suggests, at least in the back of the envelope -- and I suggest in terms of what we ought to be worried about -- that there is a vast over-regulation here, perhaps a limit that is twice as stringent as it needs to be.

JUDGE REICH: Can I --

MR. WILKINS: I don't ask -- I'm

sorry.

JUDGE REICH: I'd like to take sort of a little step back for a second. I want to make sure that I have the right frame of reference for all of this. Am I correct in regarding Attleboro's petition and its reply brief as saying you need to have waste load allocation as a prerequisite for setting water quality-based effluent limitations?

MR. WILKINS: I think you do need to have that, although I recognize that if you don't have that, they still have to issue a permit.

JUDGE REICH: Is that a Clean Water Act requirement or a Rhode Island requirement, or both?

MR. WILKINS: I think it's a Rhode Island requirement. I think the Clean Water Act requirement is that there be sound science.

JUDGE REICH: The Rhode Island requirement you cite to support that -- Rule 7. Rule 7 as I see it is purely a definition

section. And I looked to see where the term of waste load allocation as used, and I only saw it being used in defining a TMDL. So where would I find in the Rhode Island regulations an actual requirement for a waste load allocation apart from the context of a TMDL as a prerequisite to setting effluent limitations?

MR. WILKINS: Let me backtrack a little bit. Rhode Island's only comments on this permit urged that a waste load allocation approach be applied. And we've cited that in our petition and in our comments.

JUDGE REICH: Right, but Rhode Island has said they don't see that as a requirement of their law, however those comments be interpreted. So I want for the moment to focus on your reference that Rule 7 "contemplates a waste load allocation approach." And find out what you mean apart from the fact that obviously, Rule 7 defines a TMDL.

MR. WILKINS: Right. By "contemplate," I am referring to the Rhode

Island comments and the support in Rule 7 for the notion that Rhode Island believes that an allocation approach is appropriate.

I don't mean that their regulations say no permit if you don't have an allocation approach. I mean, that's what I said earlier in response to your question. If you don't have an allocation approach, you still have to issue a permit. I recognize that.

JUDGE REICH: So you see it as a preference rather than a requirement?

MR. WILKINS: Yes. I think the requirement is that they have a sound, rational, scientific basis. And here, they've applied the MERL model. You can't have a model --

JUDGE REICH: And you're saying that for the Federal requirements as well?

MR. WILKINS: Yes. You can't have a rational permit without a sound scientific basis.

JUDGE REICH: All right.

MR. WILKINS: And here, they've said

you can't have a model, yet they use MERL as though it were a model. That's no better than using Kester. There's no explanation why they didn't use Kester. What we think is that they've gone back and forth. Rhode Island has gone back and forth on what its regulations mean.

We need to have these errors -- including the misstatement of the dilution -- they refer to the dilution of the Providence River, when in fact it's the Seekonk River into which our discharge first flows -- I mean, these are detailed errors that could be corrected -- should be corrected. And if they were corrected, I don't know what the result would be, but at least we would be on the road towards having a scientific and rational basis for some kind of permit that might come out of it.

And in fact, the issue on dilution goes to the crux of MERL comparison, because there's no dispute here. Region 1 agrees

that differences in flushing rates exist between Providence and Seekonk and the MERL model. So how do you possibly get a defensible position unless you take account of those differences and you do it correctly? You do it with the correct value for the Seekonk River.

Now, there is also an interstate aspect to this. And we have argued that to some degree -- to some length in our petition. I think one thing I would like to pose as a rhetorical question is here, you've got a number of wastewater treatment plants -- some in Rhode Island, some in Massachusetts. You've got different rivers with different attenuation rates. Region 1 says Ten Mile has a 40 percent attenuation rate. The Patuxent has an 18 percent, and Blackstone has a 13 percent.

And yet the Rhode Island discharges into the Patuxent and Blackstone. I'm talking about Cranston, Warwick, West

Warwick, and Woonsocket -- have the same 8.0 nitrogen limit as we do.

Now, how can that possibly be where the dilution and attenuation rates are concededly different? There's something wrong with that picture. And I suggest that what's wrong with it is that this has not been -- a permit has not been issued on a scientific basis; it's been issued on some other basis. And that it needs to be based on science.

We did a number of calculations. We even assumed that the Region was right and we were wrong in terms of how much nitrogen is relatively produced by the wastewater treatment plants. We took their 90 percent figure, and you come out with our effective contribution to the Rhode Island waters as being somewhere between 3.4 and 4.3, which is significantly low. Again, interestingly, by roughly a factor of 2.

JUDGE REICH: Mr. Wilkins, I'll let

you proceed how you will, but you may want to consider shifting to phosphorous in light of the time.

MR. WILKINS: Yes, I've lost track of that. Thank you.

Now, phosphorous. The Region used the same data to come up with a 0.2 limit in the first permit as it did to come up with the 0.1 limit. Now, we suggest that is the result not of any particular scientific approach but of several errors. Now, one was the definition of the lake that has already been the subject of questioning to Rhode Island.

Rhode Island's only comments quoted EPA's guidance, which when read in context appears very clearly, to us anyway, to be an interpretation of its own view of what a lake is.

JUDGE REICH: I agree that the quoted guidance is a little confusing, which is obviously why I asked Ms. Forcier about it. But

looking solely at the definition in the Rhode Island regulation, tell me how this is not a lake under that definition.

MR. WILKINS: Well, the definition itself, I think everyone recognizes, needs some interpretation. Because the definition nominally refers to any body of water, which would include any flowing body of water. And yet the Region agrees quite sensibly that it doesn't refer to flowing bodies of water.

So the question is, what is a flowing body? The Rhode Island regulation does not answer that question, but their comments in the first round of permitting appeared to answer it by adopting the same interpretation that EPA adopted, which is the standard definition.

You have to have a certain acreage and a residence time more than 14 days. It wasn't until we pointed out that the average residence time is less than 14 days -- in fact, less than 10 days -- that the Region

and Rhode Island appeared to have shifted ground on that.

Now, I suggest that that is not the rule of law. That is arbitrary and capricious -- that Rhode Island's comments were the fairest statement of what they really think. If you look at their TMDLs, by the way, and I think it's fair game to look at them for other bodies of water because we weren't confronted with this until the Response to Comments came out -- we didn't know that they were shifting to a 7Q10 theory -- but if you look at their other TMDLs, they use average. They don't use 7Q10.

So what is Rhode Island doing? It seems to me they're picking and choosing. There is, I think, a concern in the Clean Water Act that although upstate entities have to comply with downstate regulations, that there is a potential for upstate -- and it used to be overregulated if, in fact, the

downstate is allowed to do this sort of thing.

JUDGE REICH: So how do you see the impact or non-impact of Rule 8(e)1 on the definition of the phosphorous standards for the lake? I think what Rhode Island was arguing earlier is you have to look at the word average and how that's applied within the context of 8(e), which requires the most adverse circumstances, and 7Q10 essentially is the most adverse circumstances.

MR. WILKINS: It may be the most adverse circumstances, but it's not the most adverse average. I mean, average is a representation of some central value, whether it's a mean, a median, or a mode. It's not the extreme low flow.

JUDGE REICH: But doesn't average still allow you to decide what dataset you're averaging?

MR. WILKINS: Well, that's not the plain meaning of that, and that's not how Rhode

Island has applied it in other circumstances. Rhode Island has been very unpredictable about that.

JUDGE REICH: Are you saying the average has to mean typical?

MR. WILKINS: Average means -- yeah, average is typical. I mean, this is a plain-meaning argument that we rely on. I don't know of any particular case law or any rulings that apply to it.

So average means mean, mode, median. One of those mathematical terms. And 7Q10 is intentionally designed to be a statistical number that is not average. It is an extreme low flow, and if they meant that, they should have said that.

JUDGE REICH: Maybe Rhode Island will want to elaborate on that in rebuttal.

MR. WILKINS: Yes, perhaps.

JUDGE REICH: Proceed.

MR. WILKINS: Now, on phosphorous, also, there's been ignoring of attenuation and

dilution. We were just talking about 7Q10. The phosphorous limits are nominally based upon a need to protect the receiving waters under 7Q10 conditions. And yet when we get to questions about dilution and attenuation at page 67 of the Response to Comments, we see that EPA is going to downplay the fact that phosphorous levels are lower during low flows. They downplay it based upon the spring sampling. In other words, high flows.

Now, if they were going to say that the worst case conditions are the spring conditions, that would make sense. But they haven't. They've said the worst case conditions are 7Q10. So they're picking and choosing datasets and inserting them in the place that results in the lowest number. That, in our view, is how they get from 0.2 to 0.1 without changing the data.

The Region also says that they can ignore the low flow data because phosphorous settles. But that is a phenomenon that has

been going on since the beginning of time. Certainly the beginning of wastewater flows. And it's already included in the data. Whatever effect that has is already included in the data -- the low flow data. So it's a non sequitur.

Now, I want to turn a little bit to metals. Aluminum in particular.

JUDGE SHEEHAN: Can I ask, before we pass on to that, about your argument about the Gold Book and the use of -- the Region's use of the Gold Book and setting the permit limits for phosphorous as instantaneous, and your problem with that? The Region, evidently, so they say, had used this Gold Book method elsewhere. And so it seemed to be something they were accustomed to doing.

Why is that wrong here?

MR. WILKINS: That's wrong because if you're going to use a dataset that's calculated on seasonal flows, then that should be your limit for seasonal flows. To apply it to a

different time period is -- it's a mis-statement of the statistical basis on which you are regulating. And it has a great potential for over-regulation. If you have to meet 7Q10, which is a seven-day flow for a month, then you are going to be discharging -- I'm sorry, you're going to have an unnecessarily strict limit.

And again, the key to -- and on the statute and on the Response to Comments, it says "necessary." What's necessary?

You can certainly change these time periods. Use data from one time period and apply it to a different time period in the permit, and come up with a limit that is too stringent according to the very same data that you're using.

JUDGE REICH: Were you saying, relative to the Gold Book, that you could not establish instantaneous values, or that if you were going to do that, you had to somehow adjust seasonal data to come up with some equivalents in terms of instantaneous values?

MR. WILKINS: You have to put them on the same basis. You have to have applies to applies, to use a cliche. So yes, you could take data from one period and adjust that so it was appropriate for a different period. That's not what was done here.

JUDGE REICH: So there's nothing inherently wrong with using an instantaneous value as long as you set the level appropriately?

MR. WILKINS: Yes, if you're going to use an instantaneous value for a monthly, then there's got to be some process by which you translate one into the other. You've got a common denominator.

JUDGE REICH: Let me see if we have any other questions.

You can feel free to raise metals as part of your rebuttal if you wish.

I think we're out of time.

MR. WILKINS: Okay, thank you.

JUDGE REICH: The Region?

MR. BUKHARI: Good morning, Your Honors.

Despite submitting hundreds of pages of detailed comments and voluminous technical materials, as well as multiple rounds of legal briefs, the City has failed to carry the particularly heavy burden required for Board review of the permit's nitrogen and phosphorous limits, which are essentially technical issues.

Narragansett Bay and its tributaries are grossly impaired as a result of cultural eutrophication, suffering from anoxia, fish kills, and toxic blue-green algal blooms. Arguments surrounding the precise level of nutrient control necessary to prevent cultural eutrophication in these important New England fisheries and aquatic resources amount to a difference of technical opinion among the Region's experts and the City's engineers.

I will begin by addressing three

contested issues concerning the nitrogen limit, in the order raised by the City.

Specifically, the extent of Attleboro's contribution to the impairments in the Bay, including a showing that the Attleboro nitrogen discharge affects Rhode Island waters and contribute to cultural eutrophication.

Number two, whether the nitrogen level of eight was reasonable and equitable, including a discussion of the City's arguments with respect to attenuation. And finally, the use of the MERL model, where I'll also address petitioners' arguments concerning dilution and flushing rates.

Then I will move to two phosphorous issues. Number one, the use of the Gold Book value of .1, assuming 7Q10 close. And number two, the twin independent bases for the phosphorous limit under both Massachusetts and Rhode Island standards. And in this context, I will discuss the various issues

raised today regarding the interpretation of the word "lake."

The recent conclusion at the Attleboro facility was contributing to nitrogen-induced water quality impairments in the Seekonk River was reasonable and firmly grounded in the record. The Attleboro facility discharges hundreds of pounds of nitrogen per day at concentrations of up to 30 milligrams per liter just 8 miles upstream of the mouth of the Seekonk River, the most highly enriched estuary in Rhode Island.

The City's own calculation of its so-called effective or post-attenuation limit concedes that approximately 42 percent of this load is being delivered to the mouth of the Seekonk. A 303(d) listed water that is already exceeding its capacity to assimilate nitrogen.

As discussed in the Response to Comments, in-stream data from 2007, referred to by the City itself in its comments, in a

challenge to the nitrogen limit, instead showed the severity of eutrophication in these waters. Particularly at the confluence of the Ten Mile River and the Seekonk River, there was indication of wild swings between low dissolved oxygen or hypoxia, dissolved oxygen super-saturation up to 250 percent, as well as very, very high chloroform A levels, consistent with cultural eutrophication.

On these facts, Your Honor, it was reasonable for the Region to conclude that -- to see these discharges were contributing or affect the Rhode Island waters and applicable Rhode Island water quality standards with respect to nutrients and cultural eutrophication.

Number two, the nitrogen limit here was both reasonable and equitable. When establishing water quality-based effluent limits for nitrogen for the various Massachusetts' facilities, foreign sources whose discharges reach Narragansett Bay, the

Region applied end of pipe limits based on the size of the facility and their location in the watershed.

This method was reasonable because among other reasons, it reduces the total mass of nitrogen reaching the nutrient-impaired estuaries of the upper bay. The City would prefer to establish pollutant loads based on all facilities delivering at the exact same concentration of nitrogen to the estuary after accounting for attenuation.

But this embodies simply a difference of technical opinion and not a demonstration of air.

There are three reasons for this, Your Honor. Number one, the City's permitting scheme fails to consider the total mass of nitrogen delivered to the estuary. Current attenuation rates are largely driven by phosphorous-driven cultural nitrification in the freshwater segments of the Ten Mile River. The new phosphorous limits will

reduce the amount of aquatic plant growth in these waters and will lessen the amount of uptake of nitrogen in the intervening waters from the discharge -- between the discharge and the mouth of the Seekonk River.

This nitrogen, in any event, is retained in the system, and that it resides in the plants. Moreover, the current attenuation rates will fall as a result in the new permit limits for phosphorous. Providing the City with an attenuation credit in the form of an increased discharge limit would not address these concerns, which the Region adequately explained in the comments -- adequately explained in the record below.

Second, the City's proposed plan fails to account for where the load is delivered. When determining appropriate permit limits, it is a meaningful distinction, not an arbitrary one, that Attleboro discharges to the highly impaired

upper reaches of the Seekonk River -- of the upper Narragansett Bay into the Seekonk River, while other facilities discharge to the lower portions of the Bay where the impacts are less severe. Equal concentrations at the mouth of the river do not account for this fact.

The Region appreciates that the City holds a different opinion -- a different technical opinion on this point. But the Region's methodology makes sense given the extreme nutrient overloading in the downstream estuaries, and was fully explained on the record.

Moreover, the permit design does not lead to inequity, contrary to what you just heard from the City. RIDEM, like the Region, also applied end of pipe concentration-based limits to all major Rhode Island facilities discharging into the Bay. Indeed, the Region demonstrated that whether existing continuation rates are assumed or

zero attenuation is assumed, the Attleboro discharge is roughly equal to the Woonsocket discharge in terms of mass load into the Bay. Woonsocket is a good point of comparison, because it's the next largest plant, and it also -- in terms of design flow -- and also discharges to the upper portion of the Narragansett Bay, the Seekonk River. I'm sorry, the Blackstone River into the Seekonk.

I will quickly address the issue of MERL, and the Region's rational basis for relying on this model. And in that context, I will discuss the City's point about dilution and flushing rates.

The Region's decision to rely on the MERL experiments as a basis for the permit's limits was reasonable and rationally accounted for both similarities and differences between the MERL model and the real world ecosystem. The MERL tank experiment was peer reviewed, and has withstood the scrutiny of the scientific

community.

EPA itself cited the model with approval in its estuary and coastal nutrient technical guide document. It is well-settled, Your Honors, that models need not be perfect analogues to real world conditions. This would defeat the very purpose of water quality modeling.

Here, the model was rationally related. The conditions in the Bay and the Region accounted for both similarities and differences as I mentioned, for three reasons, Your Honor.

Number one, the MERL tanks were specifically designed to reproduce the range of nutrient enrichment levels seen in real estuaries. That was its expressed design. The 2004 RIDEM evaluation for the Upper Seekonk River -- for the Seekonk and Providence Rivers -- expressly tied the MERL tank experiments to actual conditions using in-stream data.

Both the MERL experiments and the receiving waters indicated similar correlations between nitrogen loadings, the causal variable on the one hand, and the corresponding eutrophic response variables, such as chloroform A and dissolved oxygen levels.

It is true that the DIN concentrations, the dissolved inorganic concentrations in the Providence and Seekonk Rivers, were lower than those seen in the MERL experiments for a given nutrient loading. The City has correctly described that. But -- and that is in part due to flushing. But the City -- the Region adequately accounted for this difference.

JUDGE SHEEHAN: Excuse me.

Has the MERL model been used in Woonsocket and all the other discharge points mentioned in this area?

MR. BUKHARI: Your Honor, the MERL model along with the RIDEM study interpreting

that model and expressly linking it to conditions in the Bay has been used for a variety of facilities in Rhode Island. Those permits have been issued. They're final, and construction is underway to meet the limits based on the MERL model, Your Honor.

JUDGE SHEEHAN: For all the Upper Narragansett Bay discharge points, has the model been used?

MR. BUKHARI: It has, Your Honor. And that includes Massachusetts facility as well. We've applied a nitrogen limit of 8 based on the MERL and the RIDEM studies for North Attleboro POTW, and the permit issued to the Upper Blackstone facility also relies on this analytical framework.

JUDGE REICH: How has the Kester model been used?

MR. BUKHARI: The Kester model was used for a specific point about dissolved oxygen demand in the Upper Narragansett Bay.

JUDGE REICH: Was it used in any other

permit proceeding?

MR. BUKHARI: To our knowledge, it hasn't been used. It may have been used, Your Honor, and if I'm incorrect on this, I'll correct the record. But it may have been used in response to comments on the Upper Blackstone, in the Upper Blackstone context.

But as far as the Kester model, in particular, the nutrient -- it's reference to a potential nutrient model has not been used for the purpose of designing any permit limits in either Rhode Island or in the Bay.

And I think it's important to point out on that specific issue that in the City's petition for review, that model is described as potentially valid. That model has not been calibrated; has not been validated for the specific -- specifically for nutrients in Upper Narragansett Bay.

Indeed, when Rhode Island was faced with that very, very difficult task, given the complexities of these receiving waters

and given the complexities of the hydrological changes to the receiving waters, Rhode Island's technical advisory committee, comprised of experts in modeling and in water quality impacts, basically threw up their hands because it was too difficult.

So for the Region now to move the permit rider in this case to attempt to model nutrient impacts based on the Kester model is simply not a reasonable route forward, Your Honor.

I would like to turn back to the issue of dissolved oxygen -- dissolved inorganic nitrogen levels in the Bay, and the differences that we see between the MERL model and the actual conditions in the Bay.

Rhode Island speculated that this may be due to differences in flushing rates. And given that reason -- given that reason, EPA determined not to choose the most-stringent loading scenarios available to them. So EPA expressly accounted for this

significant difference in loading and flushing rates between the MERL model and real world conditions. Rhode Island also mentioned, and this is contained in the 2004 study, that flushing rates may not be the only reasons -- or dilution. I'm using this as a proxy for the City's arguments on dilution -- that this may not be the only reason for the differences in DIN concentrations.

One other reason may be the presence of eutrophic conditions in the Bay. The presence of aquatic plant growth on the rivers' bottom -- on the Bay's bottom -- taking up this nitrogen. And so EPA did not feel it was appropriate to credit the facility for these sorts of ongoing violations of water quality standards.

I want to make one last point about this. And that is that even if -- the City concedes here -- that even if the -- it's understanding of flushing -- the differences

in flushing were accounted for -- accurately accounted for -- was between 3.5 days and something less in the Seekonk River, it's unclear what the difference in the permit limit would be.

And we contend -- the Region submits -- that there would be no difference in the flushing rate. The Region made the point very clearly that whether the flushing rates in the Upper Narragansett Bay and the Seekonk River are somewhat less than 3.5 or somewhat more than 3.5, they are much lower than the 27 days assumed in the MERL tank experiments. And that was a difference that was accounted for by the Region.

Finally, the other point to bear in mind and to balance against the whole issue of differences in flushing rates and its potential effect on dissolved inorganic nitrogen is that the MERL model did not replicate stratification in the receiving waters. And stratification is basically a

process in the Providence River in which the bottom waters are sealed from the nutrient -- from the oxygen-enriched upper layers, and that exacerbates the dissolved oxygen impacts in the receiving water.

And it was for this reason that the Region decided not to opt for any of the other less stringent loading scenarios, such as the 8X or 16X that were also in the record before it.

By the way, I would -- I think at this point, given my time, I'll move to the phosphorous issues. And I'd like to address in doing so the specific issues raised in argument just a moment ago by the City. The first issue I'd like to discuss is a use of the Gold Book under 7Q10, Dilution Flow to calculate the permit limit.

The Region's application of the Gold Book was reasonable and consistent with the text of the applicable water quality standards, the practice of other states, and

EPA guidance, including nutrient criteria, technical guidance manual, and the recommended ecoregional criteria.

In developing the phosphorous limit, the region consulted national guidance, peer reviewed literature that recommended in-stream phosphorous values from .01 to .1 milligrams per liter. That was the range available to the Region.

JUDGE REICH: Can I ask one question in terms of EPA guidance? Attleboro quotes on page 24 of their petition, from EPA, Zambia, and water quality criteria recommendations, information supporting the development of state and tribal nutrient criteria, lakes and reservoirs, and nutrient echo Region 14. And they quote -- and I haven't gone back to the original to verify the accuracy of the quote, but their quote is EPA does not recommend identifying nutrient concentrations that must be met at all times. Rather, a seasonal or annual averaging period is considered appropriate.

Is that guidance applicable here? And if so, how does that square with what the Region has done by way of setting effluent limitations?

MR. BUKHARI: Your Honor, the ecoregional criteria documents and the supporting materials are expressly designed to be starting points. And those are the words that are used in the actual documents. And the ecoregional guidance expressly acknowledges that in some cases -- and that quote soon after that quote -- expressly acknowledges the fact that how a limit is expressed, and whether or not a limit would be appropriate, turns on the state water quality standards. And that is the point of departure for us.

You know, there's nothing in the Clean Water Act, per se, that would prevent the imposition of a seasonal limit. But when writing an MPS permit, when writing a water quality-based effluent limit, we have to comply with state water quality standards as

written. And as written, both Rhode Island and Massachusetts standards require water quality to be achieved -- water quality criteria to be achieved under the most severe hydrological conditions. That low flow condition is described in both. And this is not precatory; this is mandatory.

The State's demand that the 7Q10 dilution flow be used. And for that reason, we wrote the limit in the way we did.

And the implications of that are important for this. I'd like to speak very briefly to that, if I could, given -- they're important given the impaired nature of these waters.

The Region demonstrated that the phosphorous limit would not only result in meeting the Gold Book recommended value under 7Q10 Conditions, but would also meet the other seasonally based criteria from EPA guidance, and peer review literature under seasonal flow conditions.

So in this way, Your Honor, we can say that the limit as expressed in the permit not only met standards -- the standards as written under 7Q10 conditions, but was also low enough to meet the seasonally based criteria available to EPA in both the nutrient criteria technical guidance manual and the ecoregional criteria.

The Region's approach here effectively reconciled all the values, all the information in the record in a logical way. And its approach in doing so was fully explained on the record. In other words, Your Honor, by establishing the .1 milligram per liter at 7Q10 conditions, in-stream phosphorous concentrations would be lower, and water quality better when calculated over the seasonal average.

This approach is not only mandated by applicable water quality standards, as I've just explained, but it makes perfect sense in this particular context. It will

give the hypereutrophic Ten Mile River a water quality buffer, time in which to halt the cycle -- the ongoing cycle of cultural eutrophication.

A decision by a state to include critical low flow provisions and state standards is intended to address precisely this sort of situation. And EPA merely achieved the purposes of the state -- of both states -- Massachusetts and Rhode Island -- in constructing the permit in this way.

In contrast -- in contrast, Your Honor, the City's proposed use of highest and best practicable technology at .2 and the imposition of a .1 limit based on seasonal flows would not ensure that the .1 limit is met in-stream under 7Q10 conditions. And that would be inconsistent with the Rhode Island-Massachusetts regulations.

Finally, a point that I think bears special emphasis, before concluding and

taking any questions, is that the phosphorous limit for this facility, which sits on the Massachusetts and Rhode Island border, some 200 yards from the state line -- is required to comply with both Massachusetts and Rhode Island standards, and must be met under critical low flow conditions.

Technical disputes over the finer points of dilution and attenuation in the context of phosphorous prior to reaching the Turner Reservoir will not change the result in this permit. It is immaterial, Your Honor. The Region has clearly demonstrated that the .1 limit is necessary to comply with Massachusetts Water Quality standards -- immediately below the discharge and before the intervening stretch and the inlet to central pond and Turner Reservoir.

JUDGE STEIN: Can we ask --

JUDGE REICH: Can we -- go ahead.

JUDGE STEIN: I had a couple of questions about Rhode Island's appeal on the

hardness value. And you've pointed out that it's essential that you meet Rhode Island's Water quality standards as well as Massachusetts. How is it that this limit meets the standards of Rhode Island if the hardness value that you select is from upstream rather than downstream?

MR. BUKHARI: Your Honor, we use the hardness value. First of all, hardness is not defined. There is no value for hardness that's mandated by Rhode Island water quality standards. We need to look at the information that's available to us at the time of permitting. And at the time of permitting, EPA did not have before it the values adverted to by the Rhode Island -- by Rhode Island in its appeal. But I would just add quickly, Your Honor, that the range of values described by Rhode Island in its petition are consistent with what the Region ultimately selected.

The Region selected a hardness value of 100. And the values referred to by

RIDEM range from -- depending on the flow condition -- around 78 to 115. And 48 to 115, I believe. And 78 to 97. All within the range. And that's your specific question. I'm sorry I'm taking so long to get there.

The use of the upstream value -- of a value upstream for hardness, all things considered, is a conservative selection, because the intervening discharges from the treatment plans would have the effect of raising the hardness value.

So upstream of the Attleboro POTW would be representative -- it would be a conservative -- using these hardness values would be a conservative selection.

JUDGE REICH: Can I ask one question about what you said in terms -- granted that the data from 2007 study would not have been available, are you saying that there was no downstream hardness data available at all at the time you developed the draft permit?

MR. BUKHARI: EPA was not aware of any such data.

JUDGE REICH: Any at all.

MR. BUKHARI: When determining the hardness value. And at the time of the draft permit. I think ultimately, it's a question of -- it's an administrative record question, Your Honor. And the administrative record under MPA has regulations. The permit needs to be based on the administrative record under MPDS permit regulations. The administrative record is closed once the final permit is issued.

And the types of conversations that we're having now over what the Region would have done had it had these data before it is exactly the type of post-hoc speculation that the permitting regulations and the Board's decision on these cases -- you know, speak to and are designed to prevent.

JUDGE STEIN: I'm not convinced by Rhode Island's argument that the Region had an obligation to consider data that wasn't

expressly pointed out to it. You know, that might be floating around in somebody's files but not in the permanent record files.

But what I am concerned about is Rhode Island's comments that were made during the comment period questioning the use of upstream versus downstream hardness data, and where in the record you could point me to where the Region responded to that specific issue.

I see the Region's response directed to -- well, here's why 100 makes sense. But I haven't -- you know, and I don't admit to be -- you know, fully knowledgeable about what's in this record -- but I haven't seen where the Region specifically confronted Rhode Island's more general comment, which was made during the comment period, and which did state that what was being used (A) was not representative of Rhode Island values; and (B), made a reference to the upstream versus downstream

issue.

And perhaps you could let me know where else I might look, if anywhere, to find an answer to my question.

MR. BUKHARI: Your Honor, I think that it makes sense to look at the comment and look at the response and determine whether the response adequately encompassed the concern being raised. And the concern needed to have been raised with specificity in order for the Region to have provided a meaningful response.

And all the Rhode Island comment went to was a question for a request for an explanation of how the Region came up with this hardness value of 100, and a generic reference to the fact that in Rhode Island waters, hardness values are typically lower. It's unclear why, Your Honor, suddenly across the state line, a short distance from the North Attleboro -- a relatively short distance, given -- particularly given the fact that the hardness values would be

increased as a result of the intervening discharges -- would suddenly be atypical, or why the upstream values would be atypical.

And so the Region took the comment on its own terms, and responded with a level of generality that corresponded with the generality in the comment.

JUDGE STEIN: But when you're dealing with a state who has expertise in what it takes to meet their water quality standards, and they say point-blank that our numbers are lower, or our hardness values are lower than the number that you're using, isn't there some obligation on the Region's part to engage that state? I mean, if it was an upstream state, they basically could have done a certification and not certified the permit.

But here, you've got a downstream state. And what I'm struggling with is in the absence of a certification, you nonetheless have comments from a state which, under the structure of the Clean Water Act,

you know, are a fairly significant issue. And why is it -- I mean, I understand that there may have been more general than the data that is now there, but was there no conversation in between Massachusetts and Rhode Island? Is there nothing in the record to suggest that there was a discussion between the state and -- either Massachusetts or EPA -- about picking the right conservative number that in fact reflected the conditions in Rhode Island?

MR. WILKINS: Well, I think, Your Honor, it's an important point, because there were discussions -- there were many discussions regarding the permit. But the issue of hardness values was never raised again by the State of Rhode Island.

And the appropriate -- I mean, if it was truly concerned -- and obviously, as evidenced by the Region's practices on the nutrient limits in this permit -- it takes Rhode Island's positions extremely seriously

and tries to -- not tries to -- writes permits that will ensure compliance with its standards.

But there was no follow-up on the part of the City in this -- I mean, on the part of Rhode Island in this respect. So --

JUDGE STEIN: But they did do that. They did do their comments, and then the Region responded to the comments. But that's it. There's nothing else that I could find that would show how this was addressed. There's no other document in the record?

MR. BUKHARI: Your Honor, I think that's a fair statement, that the Region's response set forth the entirety of its thinking on this issue -- that's entirely fair.

With respect to whether Rhode Island is now sort of left -- you know, out of time and out of luck on this issue, this material is before the Region. And of course, is now before the Region and can form the basis for a potential modification of the

permit. And the issue, to the extent that there remains a concern over it, given all the other issues in the permit, it can be cured in that manner.

JUDGE REICH: Let me ask another record-related issue.

I know the Region obviously must have made a determination and asserted that the water quality standards in Rhode Island could be protected using the 100 milligrams per liter hardness value. Rhode Island came back and presented an analysis showing why that was not the case. The Region took objection to that analysis and cited a couple of reasons why they thought that in fact, the level would still be protected.

But what I don't remember seeing was -- the very starting point of the analysis was an actual analysis that showed how the Rhode Island water quality standards were being met with the 100 hardness level. I saw an assertion of that. I didn't

actually see an analysis of that. Is there in fact a technical analysis that showed that? And where in the record would that be?

MR. BUKHARI: Your Honor, I think, as I mentioned to Judge Stein, that I think the entirety of the Region's analysis is reflected -- including with respect to Rhode Island -- to meeting downstream standards -- is reflected in the response to comments.

JUDGE REICH: So if we don't see it in the Response to Comments, we can assume it doesn't exist?

MR. BUKHARI: Right. I think that that's a fair statement. And I think that that's probably all that the Region has to say on this, on this issue.

JUDGE REICH: Can I ask on a different subject, going back to the question of the definition of a lake, how do you respond to the City's argument that the Rhode Island definition necessarily requires some interpretation, and viewing Rhode Island's comments on the draft

permit -- the most logical interpretation is to in fact import EPA's criteria relative to residence time into the definition of lake for Rhode Island purposes.

MR. BUKHARI: Your Honor, I would begin with the definition as it appears -- the plain language of the definition as it appears in the Rhode Island standards. The plain language makes no reference to hydraulic residence times. No reference.

The State of Rhode Island deliberately wrote the regulation. And encompassing matter to encompass the very types of situations that we are confronted with here. And I would remind you that, you know, when interpreting -- when interpreting various provisions of Rhode Island standards, it's important to look at the intent of the state. And the intent of the state has always been to treat this particular water body as a lake.

And this is in keeping with the

purposes -- this is in keeping with the rules of construction for the Rhode Island standards. We're supposed to give a liberal construction to the terms and the definitions and the standard. And I would just point out, Your Honor, that the very purpose of the water quality standards is to -- the dual regulatory purpose -- is to provide a basis for water quality-based effluent limits, and to restore the chemical, physical, and biological integrity of Rhode Island's water.

JUDGE REICH: If I understood what the City was saying, how do you respond more specifically to the fact that the definition references any body of water which can include free-flowing bodies of water. And therefore, you need something else to limit the definition so that you don't get essentially absurd results.

MR. BUKHARI: I think the definition itself -- the words themselves are self-limiting at the point that we made in the brief. You

know, a lake -- you know, by its dictionary definition, is not a brook. It's not a stream. But the lake here -- and you look at the facts of the particular hydrology to which this definition is being applied, and here, we have a water body which is heavily impounded, which extends beyond 200 acres in terms of area, and has severe eutrophication as a result of point source loading.

And under these circumstances, and under the consistently held treatment of this water body as a lake by the State of Rhode Island, it would be an observed result to say it's not a lake, simply for the reasons referred to by the City based on a parsing of these words. They need to be read in context, I think is the point that needs to be underscored here.

JUDGE REICH: Okay, thank you.

MR. BUKHARI: Thank you.

JUDGE REICH: We'll now turn to Rhode Island for rebuttal.

Maybe you can begin if you have any further thoughts on this definition of lake and residence time.

MS. FORCIER: I think that the statements that the Region just made to end his argument are basically accurate for how the Department has been treating it. And that pretty much assesses -- encompasses the Department's opinion on the definition of lakes.

JUDGE REICH: So does that affect the answer you gave earlier as to whether the definition of lake for Rhode Island purposes includes residence time?

MS. FORCIER: It does not. I misspoke earlier. It does not include residence time. I apologize.

JUDGE REICH: Thank you for clarifying that.

MS. FORCIER: And also to clarify a bit further on that and to get into a bit of what Mr. Wilkins indicated for the City, regarding the 7Q10 criteria as opposed to an

annual or seasonal average, DEM admittedly has used an annual or a seasonal average for a more traditional lake. And again, back to what the Region stated, this is not a traditional lake in that it's a river impoundment and it's an effluent-dominated and impaired water body. And so it will be treated differently than we would a traditional lake for that reason.

The only other comment I wanted to raise is again in response to the City's comments on the nitrogen limits at some other Rhode Island facilities, where he indicated a number of facilities on different rivers, different tributaries, and stated that they're all set at a nitrogen limit of 8. And that's not the case.

As the Region indicated, again, the Woonsocket plant, which is one of the largest in the state and is the largest in Rhode Island on the Blackstone River, currently has a limit of three, which we view as the limits of technology. And that was achieved through

consent agreement, with the permit being reissued with a limit of three. And a number of other facilities are at five, as well, including a couple that were listed.

Basically, the State views these nitrogen limits as all relative. As I think the Region very clearly summed up, we base it on the location of the facility, the capacity of the facility, and the equivalent amount of nitrogen that's being deposited. Facilities that are smaller or that are closer to the Bay with an increased flushing rate tend to have a less stringent limit; whereas limits -- facilities such as Woonsocket that are more in the upper reaches of the system are imposed -- have a stricter limit imposed on them.

Thank you.

JUDGE REICH: Thank you.

Mr. Wilkins?

MR. WILKINS: Thank you. I'll try to address metals, and then there are a couple of

things that came up in questioning that if I have time, I'll get to.

First on aluminum. The Massachusetts limit incorporates the EPA-recommended water quality criterion. Now, that criterion is not just a number. There is a number 87, and then there are three footnotes that appear in the National Recommended Water Quality Criteria. And among those footnotes is footnote L, which was the subject of the comments of Mass DEP (?) talking about three major reasons why the use of water effects ratio might be appropriate.

We're in an odd situation, in my view, because EPA said, well, Massachusetts adopted the criteria and the criteria say 87. And so we can't deviate from that. And yet what Massachusetts adopted was EPA's recommended criteria, which does have a disqualifying footnote. So we suggest that Region 1 had more authority than it thought

it did.

JUDGE REICH: Is the decision whether to exercise the authority reflected in the footnote? Is that discretionary?

MR. WILKINS: Well, it's discretionary within the usual limits, yes. Certainly, they need to go through the three major reasons why a water effects ratio might be appropriate, and apply it to this case and decide yes or no.

JUDGE REICH: So what -- if the Agency looked at the Massachusetts regulations in toto, why could they not conclude that yes, it's discretionary, but the state itself has reserved that discretion for itself and established formal procedures for adopting site-specific criteria. And therefore, consistent with the totality of the Massachusetts regs, EPA cannot independently exercise that authority.

MR. WILKINS: Well, that's not what they did. If they had done that, of course, we would be going over to Mass DEP and say, well, will you exercise that authority? What they did

instead was just to pose a number. And so the argument I bring to you is that they thought they had a limit on their authority, and that limit does not exist.

I'm not asking you to say they should have exercised that authority or they shouldn't have exercised that authority. I'm asking you to send it back to them saying you have the ability to do what the City has asked for; please decide. And of course, they'll have to decide in the usual, rational manner.

JUDGE REICH: But I still don't understand how the response to the argument that Massachusetts may have that authority, but absent Massachusetts exercising at the Region, in fact, does not have that authority.

MR. WILKINS: I don't read their Response to Comments as saying that. I think the response to comments says it's 87, period.

Now, as far as the hardness issues go, the hardness issues are of course very

important to the metals limits. I absolutely agree with what Region 1 has said here is that using upstream is conservative, because when we discharge, we raise the hardness. In fact, as we pointed out in our reply to write-in, there was a mistake -- a transcription error in some of the data. And in fact, the 100 value that EPA Region 1 used is in fact too low. It should have been much higher.

But we have not been given RIDEM's data. The data that they were relying on here. It wasn't presented for comment before Region 1. And in fact, Region 1 did respond to the only comment that was made, which was please provide justification for the 100 limit. And EPA did provide that justification. RIDEM provided no other data that would have provided any possible other answer.

And then more globally on the metals limits, as we pointed out in our

petition, the limits are not producing toxicity according to the whole effluent test. And in fact, especially when you're adding limits on aluminum and then saying we have to meet at 0.1 instead of 0.1 and instead of 0.2 phosphorous limit -- this is really pinching the ability of the facility to operate.

So I would request that you grant review and overturn Region 1.

JUDGE REICH: I would like to thank Counsel for the excellent quality of the argument this morning.

This argument stands adjourned.

(Whereupon, at approximately 11:32 a.m., the ORAL ARGUMENT was adjourned.)

* * * * *

C E R T I F I C A T E

This is to certify that the foregoing transcript in the Matter of:

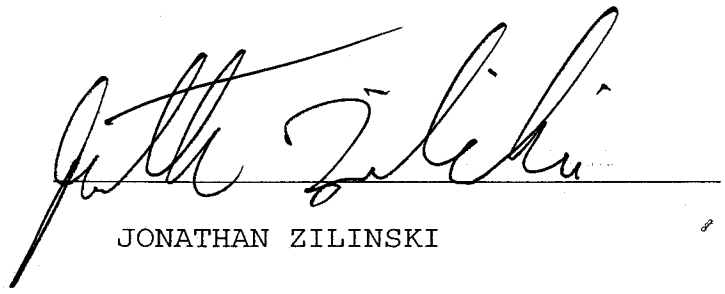
CITY OF ATTLEBORO, MA
WASTEWATER TREATMENT PLANT

BEFORE: ENVIRONMENTAL APPEALS BOARD

DATE: DECEMBER 18, 2008

PLACE: WASHINGTON, D.C.

represents the full and complete proceedings of the aforementioned matter, as electronically recorded and reduced to typewriting.



JONATHAN ZILINSKI