UNITED STATES OF AMERICA

ENVIRONMENTAL PROTECTION AGENCY

BOSTON REGION

In the Matter of:

PUBLIC HEARING:

RE: NOTICES OF INTENT SUBMITTED BY OPERATORS SEEKING AUTHORIZATION TO DISCHARGE STORMWATER UNDER THE U.S. EPA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) GENERAL PERMIT

OPERATORS:
Massachusetts Highway Department
Massachusetts Turnpike Authority

Worcester Public Library
3 Salem Square
Worcester, Massachusetts

Friday
February 17, 2006

The above entitled matter came on for hearing, pursuant to Notice at 9:15 a.m.

BEFORE:

DAVID WEBSTER, Chief
DAVID J. GRAY, PE
Office of Ecosystems Protection
U.S. Environmental Protection Agency
New England Region 1
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P R O C E E D I N G S

(9:24 a.m.)

MR. WEBSTER: Good morning, ladies and gentlemen. This morning's hearing concerns the Notices of Intent, which summarize Stormwater Management Plan submitted by the Massachusetts Highway Department and the Massachusetts Turnpike Authority, for coverage under the National Pollutant Discharge Elimination System, or NPDES, general permit for stormwater discharges from small municipal separate storm sewer systems, sometimes called Small MS4s.

This hearing shall come to order. My name is David Webster. I'm the Chief of the Industrial Permits Branch with the New England Region of the United States Environmental Protection Agency, or EPA. The other member on today's public hearing panel is David Gray, with the Stormwater Water Program for EPA New England.

I will, briefly, describe the background for this hearing, as well as explain how the hearing will be conducted.

EPA has authority under Section 402 of the Clean Water Act to issue permits to regulate, among other things, certain stormwater and wastewater discharges from point sources in the waters of the United States.

On May 1, 2003, EPA New England issued a general permit for stormwater discharges from small municipal

separate storm sewer systems, or MS4s, in Massachusetts. In order to obtain authorization to discharge under this general permit, operators of Small MS4s were required to submit a Notice of Intent by July 30, 2003.

The Notice of Intent summarizes how the operator, or in these cases, the Massachusetts Highway Department and the Massachusetts Turnpike Authority, will implement the Stormwater Management Program required by the general permit. The Stormwater Management Program provides additional detail on how these organizations will manage their stormwater and comply with the permit's conditions.

On November 2, 2005, EPA made available for public comment several Notices of Intent received by the agency, including those submitted by the Massachusetts Highway Department and Massachusetts Turnpike Authority.

The agency received comments and requests for public hearings from several persons. Based on the significance of the public interest, this hearing is being conducted by EPA in order to receive additional public comment on these Notices of Intent submitted by the Massachusetts Highway Department and the Massachusetts Turnpike Authority.

Copies of the Notices of Intent are available here today at the table near the door, at the back of the room. We've also provided copies of several fact sheets that

explain the municipal stormwater permitting program. Those, too, available at the table.

The Stormwater Management Program documents prepared by the Massachusetts Highway Department and the Massachusetts Turnpike Authority are available at the Region 1 Web page, and I'll give you the Web page name, but I'm sure it's in the fact sheets as well back there, www.epa.gov/ne/npdes/stormwater/index.html.

We are accepting oral statements, but to ensure accuracy, all lengthy comments should be submitted in writing. Oral statements should also summarize extensive written material to allow time for all interested parties to be heard. Both, oral and written comments received today, as well as those written comments submitted during the public comment period, will be fully considered by EPA.

The agency intends to seek input from the Massachusetts Highway Department and the Massachusetts Turnpike Authority on the comments so that EPA is fully informed about any issues raised by the comments.

After evaluating information from the commenters and the Massachusetts Highway Department and the Massachusetts Turnpike Authority, EPA will determine whether any changes are necessary in those operators' Stormwater Management Programs. We will make available information that results from our evaluation on the EPA Region 1

stormwater Web site.

This is an informational non-adversarial hearing without cross-examination or other inquiry of either the commenters or the panel. We, as the panel, will confine our questions to point of clarification for the record.

This public hearing is being recorded. All the comments received, recordings and supplemental materials are open to the public and may be inspected during normal business hours at EPA's Boston office.

The public comment period closes tonight, midnight, February 17, 2006, unless extended by the hearing officer prior to the closing of the hearing today.

Let me say a little bit about the order of the comments that I intend to use. First, I will allow, both, the Massachusetts Highway Department and the Massachusetts Turnpike Authority to make a short concise presentation, if they wish, and then any, first, any federal, state or local elected officials, then any other agencies, public agencies, then general members of the public audience.

I'll use the attendance cards to call on people who wish to comment. If I call on you, let's make sure I get your name right for the record, and the speakers should come to the podium to speak. I ask that, when you speak, you identify yourselves and your affiliation.

I'm going to start by asking of representatives

from either Mass. Highway or Mass. Turnpike Authority wish to speak at this time. I'll also give you an option at the end of the program as well.

Go ahead.

MR. BARBARO: Good morning. My name is Henry Barbaro. I supervise the Wetlands Unit of the Mass. Highway Department, and I guess I really didn't prepare for speaking. I thought I was going to be just strictly listening, but one thing I want to point out about the comments in -- the written comments that I've seen is that it seems like a whole lot of them are based on interpretation of the NPDES Phase 2 requirements, so Mass. Highway looks to EPA to, you know, deliberate and clarify those points, and I think some of the comments are just strictly, you know, a difference in interpretation.

I guess I could add one other thing. Once EPA, or during this process, you know, Mass. Highway would be willing to meet with interested parties and try to resolve some of these issue. Again, it seems like there's just some questions of interpretation and understanding of the requirements, so that's all I have to say for now.

Thank you.

MR. WEBSTER: Thank you, Mr. Barbaro.

Is there a representative from Mass. Turnpike that wants to say something at the outset?

MR. McCULLOUGH: Thank you, Henry.

My name is Rick McCullough, from the Massachusetts Turnpike Authority. I direct the Environmental Engineering Department that prepares and implements the Notice of Intent.

I just wanted to say really, in brief, that the Mass. Turnpike Authority supports, fully supports, the Clean Water Act regulations, as well as -- and has submitted our Notice of Intent, obviously, in respect to that. We have also submitted supporting material annual reports as required by the regulations.

The implementation of the work, we felt, is an ongoing process. I think that's one thing that commenters could consider, is while the Notice of Intent application has data in it, you know, where three years into this process, and we've gone a long way since then in this flexible type permitting process that's ongoing continually improving.

Again, we're here just pretty much like Henry, to listen to the comments, get an idea what's, you know, what everybody has besides written comments that we've received to date.

Thank you.

MR. WEBSTER: Thank you very much, Mr. McCullough.

I'm going now by the cards. If you just signed in

to register and don't want to speak, you're certainly willing to say that as well.

Linda DiMizeo?

(Pause.)

MR. WEBSTER: Okay. David Harris, Worcester DPW?

(Pause.)

MR. WEBSTER: Okay. Peter Angelini, from the Leominster Land Trust.

MR. ANGELINI: Good morning. Thank you for the opportunity to comment.

Again, my name is Peter Angelini, Executive Director of the Leominster Land Trust, and over the past couple of decades, beginning as a member of the Leominster Conservation Commission, we tried to, at least, develop a relationship, a working one, with Mass. Highway to identify some serious problems, one of which affects and outstanding resource water known as the Notown Reservoir, primary drinking water supply for our community, provides nearly 70 percent of the drinking water for the community.

We also, the Land Trust owns a 35 acre pond called Pierce Pond, in Leominster, that is fed by Monoosnoc Brook which begins at the headwaters of Notown Reservoir, and over the years, we've seen degradation of, both, Monoosnoc Brook and Pierce Pond as a result of just increased sand and sodium treatments.

The brook trout population has disappeared. We've a delta that formed at the confluence of Monoosnoc Brook and Pierce Pond. The sand deposition is over 6 feet deep. You can't even get a kayak from the mouth of the brook into the pond any longer.

So I would hope that, as a good faith effort, along with these current recommendations, that a plan be put together with a compliance officer, someone who's responsible for compliance and someone who will, also, act to adopt a plan which will help remediate some of the damage that's been caused over the past couple of decades.

To me, you know, the new stormwater policy is a great start, but we have agencies that don't recognize the Clean Water Act, and I think we're fooling ourselves if we think they're going to comply with these new stormwater regulations.

So I'd just ask you to, please, consider some type of a compliance official that public non-profits and other interested parties can contact, and we don't have to go through this bureaucratic process, the BEP contacts local Conservation Commissions and moving up the food chain to EPA over issues that should be resolved immediately. They shouldn't take years and decades to resolve.

There should be someone that could be contacted that can come out to the site, identify the problem and put

together a plan for remediation, and I think if you can employ that component in the stormwater, these new stormwater management rules, that I think we're going to have a much better chance of success and to try to clean up some of this damage.

Again, we had a beautiful brook where a cobble bottom supported a brook trout population. Now, the entire bottom of the brook is comprised of sand, and you know, during the winter and spring months, I would say that it's, basically, brackish water, there's so much salt being deposited along the highway system at 17 outfalls.

And we met with Mass. Highway about 18 months ago, a wonderful young lady, very cordial. She came out, walked the one mile stretch of Monoosnoc Brook with us. We identified the 17 outfalls. We even offered -- we had a corporate sponsor, we thought we had an innovative remediation project. We were going to build some head walls on a steep bank, and we could actually get in there physically with our volunteers and do the maintenance, remove the sand before it entered Monoosnoc Brook, and we were willing to pay for half the cost of it.

We thought it was an innovative pilot program that could be adopted throughout the state, and after what we thought was a very productive meeting, the communication ended. We never heard from Mass. Highway again, and we

contacted that official and, apparently, you know, priorities changed.

So, you know, I've been doing this quite a while, maybe to the point of becoming frustrated, and I hope that that's what you're sensing from my words this morning because I am frustrated, and I think it is time for us to take a logical approach, something with teeth, and we need enforcement as well, and if we are serious about this, stopping the degradation of our water supplies, then that's what we'll do.

Thank you very much.

MR. WEBSTER: Thank you very much.

Andrea Donlon, from Connecticut River Watershed Council.

MS. DONLON: Hi. Thank you.

My name is Andrea Donlon, and I'm with the Connecticut River Watershed Council. We submitted a comment letter back during the original comment period, and I have some additional comments today, and I, mainly, had the opportunity to review the Mass. Highway NOI, but some of my comments pertain to the, the Turnpike and Mass. Highway.

As we all know, the NPDES Phase 2 regulations are new, and we're pretty much in uncharted territory, so we really appreciate being able to be a part of the public process in reviewing these NOIs.

We're also sympathetic to the municipalities having to comply with this new regulation, and in many cases, people feel that it's, you know, an unfunded mandate that they weren't expecting to spend money towards, and some of the expectations of what the NOI means and says may not have been entirely clear, and I think, you know, and I've looked at a bunch of different NOIs. Many of them list, in their BMPs, existing programs rather than new things, and some of them have had goals that were somewhat vague.

We're also aware that the MS4 NOI doesn't require numerical limitations which allows flexibility, and that's a good part of the regulation. However, the MS4s are required to reduce the discharge of pollutants, what's called to the maximum extent practicable, and EPA in memoranda have regarded this as sort of an iterative process.

So, I think the question to be answered is whether or not Mass. Highway complies with the regulatory requirements of the NOI and the spirit of the regulation in this first five years of the new permits, and we argue that the NOI is insufficient in certain areas, especially, given Mass. Highway's breadth and significant potential to effect water quality statewide.

In the Connecticut River watershed, the urbanized area around Springfield, I-91 and Route 5 runs, roughly, parallel to the Connecticut River, and the Mass. Turnpike

runs pretty much parallel to the Chicopee River and then the Westfield River, which are tributaries to the Connecticut River.

Looking at the big picture, EPA has identified non-point source pollution as the largest source of water pollution in the country. Roads and highways are one source of runoff pollution, and Mass. Highway maintains thousands of miles of road.

The major contaminants of interest in highway runoff are de-icers, nutrients, metals, petroleum related organic compounds, sediment washed off from the road surface and agricultural chemicals used in highway maintenance. Impervious surfaces, also, contribute to an increase in temperature in water reaching rivers and streams, and temperature pollution can have an effect on biological receptors.

Whether or not water bodies in Massachusetts have been impacted by Mass. Highway or the Turnpike Authority is not fully researched, although the U.S. Geological Survey, Mass. Highway and the Federal Highway Administration have been studying this topic, and one literature review has identified that there are some constituents of highway runoff in receiving waters near highways found in the tissues of aquatic biota, although those are not necessarily toxic to the biota.

So, will the BMPs listed in Mass. Highway's NOI and described in the Stormwater Management Plan or the SWMP actually serve to improve and protect water bodies in the Commonwealth? It's our opinion that Mass. Highway's NOI is written in a way that it will be difficult to determine that, and the measures will not necessarily result in protection or improvement of water quality.

For example, in the source control related BMPs, in Minimum Control Measure 6 under good housekeeping, many of the measurable goals are to continue to support such and such a program, and in Mass. Highway's second annual report to EPA on the progress of its NOI, they reported that, you know, Mass. Highway continues to support this program. What does support mean, and does supporting a program actually result in water quality protection and improvement in a way that you could actually measure it?

The SWMP identifies ways that Mass. Highway is addressing salt and sand control, for example. Mass. Highway states that they have reduced the amount of sand applied to state roadways by more than 50 percent over the last two years. I was curious if this reduction reflected a permanent systemwide paradigm shift in sand usage.

So, I contacted Mass. Highway and got data from 2000 to 2005 e-mailed to me for statewide salt and sand usage and District 2, which is the Connecticut River Valley.

I have some graphs that analyze this data, and from looking at the graphs, I'm not sure which two years Mass. Highway was referring to, and of course, the salt and the sand application is based on weather conditions, which vary year to year, but if you compare the information, the winters of 2002 to 2003, the salt use was about the same as 2004 to 2005, but the sand was actually 2,300 tons higher in the later year, 2004/2005, and in District 2, there was one of those similarities, but the sand use went down in the later year.

So, there are some signs of declining sand use, but a clear trend is not apparent. One measure of the sand use as compared to salt use is a ratio of tons of salt to tons of sand use, and I have a graph here showing those ratios, and you would expect, if sand use comparatively declined, you would see the ratio between salt and sand get higher and higher, and in District 2, this was the case between 2001 and 2004, but the last winter, 2004/2005, was a return to heavier sand use, and statewide, there are no clear trends in the ratio.

So, I would say, based on the data I received, it's not conclusive that sand use is consistently being reduced, and we recommend that Mass. Highway look at root causes of that. Training may be a good tool, but if there's a built-in preference for highway contractors to spread

potentially unnecessary quantities of salt and sand, and I don't know if that's the case or not, but it would be useful to look at that. I know I've seen, you know, salt just, dry salt sitting there for weeks, which may or may not have been too much salt and sand as well, but it's unlikely that water quality improvements will actually be realized.

We're glad that Mass. Highway has identified the use of herbicides in their source control housekeeping measure. They've developed a Vegetation Management Plan that uses integrated pest management in an effort to use herbicides and pesticides as little as possible. Unfortunately, though, the only goal associated with source control of pesticides in the NOI is the development of this plan, so we recommend that a goal related to the actual usage of pesticides be added or considered, at least.

So, in conclusion, we think that it's be more effective if, both, Mass. Highway and the Turnpike Authority took a step back and identified the potential pollutants from highway runoff and then identified the BMPs and measurable goals designed to really reduce the discharge of these pollutants, but this NOI is a very important first step in thinking about stormwater.

Also, I'd like to offer that, if Mass. Highway would like to pilot a road and watershed in which to implement mapping, assess affected waters and identify

endangered species, since that hasn't fully happened yet. We suggest using the I-91 and Route 5 corridor that runs parallel to the Connecticut River. Connecticut River is a water quality impaired water body already. It will be needing TMDLs.

And the short-nosed sturgeon is a fish that lives in the Connecticut River in this section of the river, in the urbanized area. It's also home to the Atlantic salmon, and thousands or millions of federal dollars have gone into restoring this fishery, and bald eagles catch fish from this area as well, so this would be an ideal area to prioritize and focus on.

Thank you.

MR. WEBSTER: Thank you very much.

Eloise Lawrence, from the Conservation Law Foundation.

MS. LAWRENCE: Hi. My name is Eloise Lawrence. I'm staff attorney at the Conservation Law Foundation. CLF appreciates EPA's decision to hold this public hearing about this important subject of Mass. Highway and the Mass. Turnpike Authority, of their Notices of Intent to discharge stormwater under the general permit.

Generally, as you know, we submitted comments, written comments, on December 1, 2005, so we'd just like to highlight a few certain items and, hopefully, be as brief as

possible.

Generally, we feel that the Notices of Intent and the Stormwater Management Plans do not comply with the general permit, and we do not believe that they will be in compliance with water quality standards by the end of the permit term, as CLF believes that they are required to do.

Furthermore, the discharges, any discharges that would cause or contribute to in-stream exceedences of water quality standards, are simply not eligible for coverage under the general permit. More specifically with respect to the NOIs, the Mass. Highway and the Mass. Turnpike's NOIs fail to identify adequate best management practices and measurable goals for many of the minimum control measures.

In particular, I'd like to focus on the minimum control measure of pollution prevention and good housekeeping. Based on what the Mass. Turnpike Authority filed, it appears that they have no stormwater pollution prevention plan to speak of. This glaring omission means that the Mass. Turnpike Authority has no specific policy in place to reduce sand and salt applications.

EPA, as you know, has clearly identified the harms of too much salt and sand. Salt can contaminate drinking water and surface water causing harm to, both, humans and to aquatic life. Salt damages soil and vegetation along roadways and causes erosion. Sand clouds water and hurts

aquatic life, and sand also can become very fine dust and act as a pollutant to humans and exacerbate problems such as asthma.

EPA, as a result, as recommended four concrete actions to mitigate these harmful effects: the use of right material, the use of the right amount, apply at the right place and apply at the right time.

The Mass. Turnpike Authority has identified no best management practices or measurable goals to implement these actions. They simply reference "Stormwater Management Prevention Plan." It does not appear to exist, so we, obviously, believe that this is a major failing of their submission.

As to the Mass. Highway Salt Management Plan, on paper, it follows the recommendation of the EPA, but we are concerned about practice. We want to make sure that the Mass. Highway Department is responsible to local concerns about contamination of drinking water and surface water from salt on the roadways. Specifically, we've heard from towns, such as Upton, who have repeatedly expressed concern about salt contamination, and we've also heard more today.

With respect to sand, specifically, the best management practices indicates that, according to the plan, that street sweeping will happen once a year. We feel that this is far too infrequent, especially, in priority areas

where they're near impaired waters or drinking water supplies.

The Mass. Highway and the Mass. Turnpike Authority also failed to identify control measures and best management practices to control pollutants of concern into waters impaired by those pollutants, as required by the general permit.

The Mass. Turnpike Authority and the Mass. Highway lands and roadways discharge into impaired water bodies, and therefore, it must treat these water bodies as a priority and indicate how stormwater controls will be implemented to control pollutants of concerns in these areas.

Mass. Highway fails to list any receiving waters, let alone identify those that are impaired stating that outfalls will be inventoried by the end of the permit term. This is unacceptable.

Mass. Highway should first, immediately, identify all discharges into impaired waters and then amend its plan to provide for a specific schedule that commits to taking specific actions to control these discharges.

Given that so many of Mass. Highway's discharges are into impaired water bodies, Mass. Highway needs to address this issue without further delay.

The Mass. Turnpike Authority's proposed BMPs in this area are inadequate in that they lack requisite

specificity. For instance, as we pointed out in our written comments, Appendix G for Palmer, Massachusetts, the Quaboag River is listed as an impaired receiving water body. The pollutant of concern in this instance is metals, but the Stormwater Management Plan does not specifically identify any control measures or BMPs that will address the discharge of those metals into the impaired waters.

We believe that the Mass. Turnpike Authority should amend its plan to provide for a specific schedule that commits to addressing these types of pollutants of concern.

In addition to failing to identify specific control measures for stormwater runoff into an impaired water body, the Mass. Turnpike Authority shifts responsibility to a local city or town to implement these inadequate best management practices.

The Mass. Turnpike Authority Stormwater Management Plan provides no evidence, for example, of the legally required agreement by any of the cities or towns that the Turnpike Authority says will implement the BMPs. Furthermore, the plan does not provide any information that may be used to assess the adequacies of such BMPs.

Finally, neither Mass. Highway or Mass. Turnpike Authority has adequately addressed TMDL requirements. To my third and, hopefully, final point here, the Mass. Highway

and Mass. Turnpike Authority failure, complete failure, to incorporate LID techniques throughout.

The Mass. Highway and Turnpike Authority have not adequately incorporated LID in their Stormwater Management Plan, and we think this is especially important, given the water crisis in Eastern Mass. currently. We think that it is not only a good policy and good for the water policy, but also, it is supposed to be, by the general permit, required to be the stormwater management tool of choice.

In the general permit, it states that permittees in high or medium stressed basin areas must minimize the loss of annual recharge to groundwater from new development and redevelopment and that all permittees must minimize loss of annual recharge to groundwater to the maximum extent practicable and to address recharge and infiltration for the minimum control measures, as well as any reasons for electing not to implement recharge and infiltration.

Specifically, with respect to the Mass. Turnpike Authority, now that they have taken over the Big Dig and with the severe problem of deterioration of foundation pilings in Boston, we think it's very important that they focus on the recharge issue.

In conclusion, we believe that the Mass. Highway's and the Mass. Turnpike's plans do not comply with the requirement; therefore, they need to dramatically revise

their NOIs in accordance with the comments that CLF has made today and those that we submitted in December to receive coverage under the general permit.

Thank you for the opportunity to testify.

MR. WEBSTER: Thank you very much.

Laura Chan, from the New England Interstate Water Pollution Control Commission, do you wish to speak?

MS. CHAN: No.

MR. WEBSTER: Kate Bowditch, from Charles River Watershed Association.

MS. BOWDITCH: I hope I don't fall in this hole.

MR. WEBSTER: Yes. I noticed.

MS. BOWDITCH: Good morning. My name is Kate Bowditch. I'm a hydrologist with the Charles River Watershed Association, and I appreciate the fact that EPA is holding this hearing and giving us an opportunity to provide comments on the Notices of Intent submitted by Mass. Highway and the Mass. Turnpike Authority.

Charles River Watershed Association submitted comments with Conservation Law Foundation on December 1st of last year, and I will not go through the things that we already said in those written comments in any detail, but I do want to touch on a couple of things, as well as list some specific examples in particular locations where our experience with the Charles River and its watershed revealed

some of the issues that I'm going to bring up today.

First, and I have some comments that are specific to Mass. Highway, some that are specific to the Turnpike Authority and some that are generally applicable to both agencies. I'll try and make those clear.

First of all, just in general, as we all know in this room, stormwater pollution continues to be a major and significant problem in the state of Massachusetts. Stormwater is a major contributor to violations of state water quality standards in many, many waters and throughout the state of Massachusetts, and it's clearly something that federal and state regulations, as well as local and grass roots movements are focused on and are increasingly expecting progress to be made, and we all know that that's going to be an expensive process, but it is one that we need to move forward with, and this permitting process is one of the main and significant tools that we all have to help us move forward with this.

There are many, many people across the state and the country who are working hard on the issue of stormwater management. There's a lot of innovative technologies, techniques, management approaches, styles that have been brought to bear on this, and one of the things that the Watershed Association feels is really lacking in these submissions and the information that we've seen to date from

the Turnpike Authority and Mass. Highway is a reflection of many of these new approaches that exist out there.

We have submitted, as you know, comments on the work of many of the municipalities to deal with this, and some of the municipalities are actually far ahead of Mass. Highway and the Turnpike Authority in terms of their effort, their intensity, their innovation, and it seems particularly inappropriate that our state agencies aren't keeping up with what some of the municipalities are doing, so overall, I think there's a lot of progress that needs to be made.

Transportation infrastructure has been, clearly, identified as one of the major contributors to stormwater runoff and stormwater pollution, and clearly, these agencies that have responsibility for stormwater management on the transportation infrastructure in Massachusetts really need to be focusing intensely on this effort.

The couple of things that I will touch upon that were in our comments in December, but I think are worth mentioning again at today's hearing. The issue of impaired waterways and discharges from these roadways into impaired waterways is one that really needs a lot more significant attention and one that I know, at least, in the case of Mass. Highway, the Mass. Highway does have experience with focusing on specific areas and does have the capacity to do this, if they choose to do so.

I use the example of the Cambridge Reservoir as one where I think Mass. Highway did focus and work very hard on trying to understand and manage their stormwater discharges into the reservoir, but that level of attention has simply not been put into many, many other impaired water bodies, and it needs to be.

One specific example that's of great importance to the Charles River Watershed Association and the City of Boston and the residents of the Metropolitan Boston area is the Muddy River. Some of you may know that the Muddy River has had extensive water quality and sedimentation problems leading not only to impairments, habitat loss, perhaps public safety problems and major, major flooding issues as well.

There is a significant and ongoing federal, state and local partnership project that is underway to dredge and restore the Muddy River. The main source of sediments to the Muddy River is the storm water system from Boston, Brookline, the Department of Conservation and Recreation and Mass. Highway, which has a major road that crosses Route 9, Route 9 that crosses the Muddy River, as well as the Turnpike, which crosses the Muddy River.

It's clearly an area that a lot of people are putting a lot of time and money into, and I know, as a member of the Citizens Oversight Committee, our efforts so

far to attract the interest of Mass. Highway and/or the Turnpike in the restoration and trying to understand what stormwater management they may have in place that specifically focused on the Muddy River have not been particularly productive to date.

So I think the issue of focusing on specific impaired waters and areas that are either outstanding resources waters or other areas of concern is one that both agencies really need to put some time and effort into in order to comply with the permit, but also in order to really move forward with a successful and effective Stormwater Management Program.

Briefly, the IDDE Program, the Illicit (sic) -- what are the two Ds? Detection and Elimination, Discharge and Elimination, thank you very much, Program. Basically, the efforts to find and disconnect sanitary connections to a storm drain system are very poorly addressed in, both, the Turnpike Authority and Mass. Highway's programs, and in spite of the fact that these are transportation infrastructure drains, and people probably don't think that they need to focus a lot of attention on sanitary connections.

It's our belief anyway that it's a requirement of the permit that they do so, and nevertheless, there are significant areas for, both, Mass. Highway roadways and

Turnpike where there's potential for sanitary sewer connections, and the agencies really ought to be focusing on ensuring that such connections don't exist and that there isn't sewage getting into the storm drain system, particularly, areas where the roads pass through residential areas where there's potential for inappropriate illicit connections to storm drains, areas where there are rest areas and other commercial developments and areas where there is significant industrial, commercial or residential sheet flow that flows into the, particularly, Mass. Highway's drainage system, so I think that's an area that really needs a lot more attention than it's gotten to date.

And then touching, again, on something that almost everybody who has testified today has brought up, which is the pollution prevention and good housekeeping piece of the Stormwater Management Programs for both agencies.

Like all other permitted entities, including municipalities, Mass. Highway and the Turnpike Authority really need to specify their street sweeping and catch basin cleaning and inspection programs with much, much more detail than they have in their submissions to date.

What methodology is being used for these inspection and cleaning programs for catch basin management; what kind of a protocol or program do the agencies have in place for replacement and upgrading of these infrastructure

elements when they need to be replaced or repaired; is Mass. Highway and is the Turnpike Authority considering and funding the use of new catch basin liners and other types of devices to improve the efficiency of those devices at removing pollutants, particularly, given that sand is one of the major issues of concern here?

There's a tremendous amount of technology that is now available to remove sand and to improve the collection of sand back out of the roadway drainage system that should be implemented over time by both agencies.

The frequency of street sweeping, again, we fully concur with CLF that an annual street sweeping is totally, totally inadequate. Many of the municipalities are required by federal and state laws to sweep their streets much more frequently. Some of them are sweeping heavily used commercial areas three times a week. DCR is sweeping some of its roadways every day. It's totally inadequate for these two agencies to have an annual street sweeping program, as their stormwater management street sweeping protocol, and it's our position that, if that's the best they can do, it does not meet the requirements of the general permit.

The other issue is the data collection and data management protocol. We would like to refer Mass. Highway and the Turnpike Authority to the Department of Conservation

and Recreation's newly implemented Data Management Program for their street sweeping and catch basin cleaning and infrastructure management. We think that DCR has put together an excellent program for managing and tracking their stormwater management, and we feel this will be an excellent tool for moving forward, and we highly recommend that the two agencies look at that as a potential model.

I would like to reiterate, also, our comments that both agencies need to provide more information on their storage facility management and what BMPs are in place, particularly, at salt sheds and sand storage facilities and, also, for snow dump management. There's a lot of polluted runoff that comes out of snow at a lot of these areas, and there may well be protocols in place for the Turnpike Authority or Mass. Highway, but there isn't information provided, so it's impossible for us to assess the effectiveness of those programs.

A couple of specific things I'd like to bring up before I conclude. This regards, specifically, to the Turnpike Authority. Some of the most heavily used portions of the Massachusetts Turnpike, including several large toll and interchange areas, discharge stormwater into the Charles River. All of these discharges are in areas where the river is impaired, and many of the pollutants that the river is impaired for are found in stormwater runoff, specifically,

the type of runoff that comes off transportation infrastructure and roadways.

Much of this discharge is completely untreated, as far as we can tell. There are pipes from the Turnpike bridges, for example, that release stormwater that hasn't gone through a catch basin or that hasn't had any kind of treatment whatsoever, just a big pipe that's pouring down into the river off the bridge as it crosses over the Charles River. Clearly, this is a violation of any kind of acceptable practice for stormwater management off of a major roadway.

There are areas of the pike where similar kind of untreated discharge, for example, comes right down off the portion of the Turnpike that's elevated above the CSX rail yard. The rail yard does have a stormwater management established. They have some kind of an infrastructure established there on the rail yard, but it's not adequate to meet the demands of, both, an overhead major highway and their own rail yard, and clearly, it's the responsibility of the Turnpike to manage their own stormwater and not release it untreated onto the CSX rail yard.

Finally -- I thought I had one more specific Mass. Turnpike. I guess I don't here. Basically, our overall position is that, based on the work that we have done, as many of you know, we've been working on evaluating the

Notices of Intent for many municipalities, Department of Conservation and Recreation, as well as Mass. Highway and the Turnpike Authority, and certainly, we acknowledge that there may be actions and activities that the Turnpike Authority and Mass. Highway are taking that they perhaps have not reported or expressed in their submissions, and we would welcome the opportunity to meet with them and review these and provide comment and so on, but all of our comments, obviously, and our opinion on the stormwater management protocols that are in place are based on the materials that have been submitted.

And I think one of the key things that all of us take away from this experience and this process is realizing how much more effort needs to be put into not only thinking about and managing stormwater, but discussing it, laying it out, showing people what progress is being made and where stumbling blocks have occurred so that we can all work together to try to improve the overall Stormwater Management Programs.

Thank you very much for the chance to comment.

MR. WEBSTER: Thank you.

Jamison Colburn.

MR. COLBURN: Good morning. My name is Jamison Colburn. I'm a Professor at the Western New England College School of Law, in Springfield. I teach classes on the Clean

Water Act and the Clean Air Act, and before getting into teaching, I was assistant regional counsel for EPA in Region 3.

I'd like to just take a couple of minutes this morning to set some legal context, which I think is important to the proceedings this morning, and I wanted to start off with the December 1999 rule that EPA finalized for MS4s, which, as EPA knows, was challenged, and that case in the Ninth Circuit, the Environmental Defense Center versus EPA, invalidated several portions of the rule and remanded it to the agency.

In particular, what the Ninth Circuit said was that, in order to receive the protection of a general permit, like the general permit that the region has issued, the operator of an MS4 needs to do nothing more than decide for itself what reduction in discharges would be the maximum practical reduction, that is, the standard, of course, under Section 402 of the Clean Water Act, the maximum extent practicable for any discharger, and this was specifically the part of the rule that the Ninth Circuit invalidated as being inconsistent with Congress' intent.

What they said, in particular, was that Stormwater Management Programs that are designed by regulated parties must, in every instance, be subject to meaningful review by an appropriate regulating entity, such as the permitting

authority here, EPA, to ensure that each such program reduces the discharge of pollutants to the maximum extent practicable, and as I said, that aspect of the rule was remanded to EPA, and that's why we're here today.

I've previously submitted a comment letter to EPA, a letter of December 1st, arguing that this, the Mass. Highway NOI, in particular, and I'd like here now to incorporate the comments of the Watershed Council, the Connecticut River Watershed Council by Andrea Donlon and also the Charles River Watershed Association, the specific comments with respect to Mass. Highway's NOI because I feel that these are not the measurable goals and best management practices that EPA expects of parties submitting these NOIs.

And as I said, in my comment letter of December 1st, I suggest to the EPA that, under its own regulations, it should take the opportunity to treat the Mass. Highway NOI as an individually permitted discharge, and EPA's regulations, the EPA regulation on point is 4 CFR, Section 122.28(b)(3)(i)(G)(3), and I had to go in search of that regulation, but I think that it's important to bring it out today because of the nature of these best management practices and the nature of the measurable goals that Mass. Higher and, to a lesser extent, I think, the Mass. Turnpike Authority and some others have been submitting.

EPA has long maintained that this is an iterative

process, and it strikes me that, as an iterative process which, of course, has to start somewhere, this process is inherently compromised when we start off with the sorts of measurable goals and the sorts of best management practices that you see in these submitted NOIs.

Even EPA, in the 1999 version of the rule, maintained that the operator's submission must identify, as appropriate, the months and years in which the operator will undertake actions required to implement each of the minimum control measures, including interim milestones and the frequency of periodic actions, and I think this is important to bear in mind when we talk about an iterative process.

Secondly, EPA said, again, in its rules in 1999 the submitted BMPs and measurable goals become enforceable according to the terms of the general permit. The first permit can allow the permittee up to five years to fully implement the program, but that was in no way intended to mean that we could last out the entire first term of a permit without even identifying discharges.

Lastly, what EPA said was that today's rule requires the operator to submit either measurable goals that serve as BMP design objectives or goals that quantify the progress of implementation of the actions or performance of the permittee's BMPs. At a minimum, the required measurable goals should describe specific actions taken by the

permittee to implement each BMP and the frequency and the dates for such actions.

Now, after he lawsuit challenging this rule, of course, EPA Headquarters sent out to the permitting authorities and, in this case, to Region 1 a memorandum of April 16, 2004, and that was under the signature of James Hanlon, the Director of Office of Wastewater Management, and in this memorandum, Mr. Hanlon did articulate the standard under the Clean Water Act which was the maximum extent practicable standard that each one of the NOIs was supposed to achieve, and he reiterated that the public review of the NOIs was an important, in fact, a critical part of the process for keeping this an iterative process and that public review was supposed to play a role in making the NOIs useful to this end.

What he said was, the permitting authority will need to conduct an appropriate review of all Phase 2 MS4 NOIs to ensure consistency with the general permit. General permits should, to the extent practicable, specify in objective terms what is expected of the Phase 2 MS4 in order to meet the maximum extent practicable standard.

Lastly, I just wanted to point out, in the region's general permit, Part 5 for transportation MS4s, which includes Mass. Highway, that one of the listed minimum control measures, this is in the general permit now, is

that the program be evaluated on an annual basis to assure compliance with the maximum extent practicable standard.

Again, I'd like to suggest to EPA that annual reviews by a discharger like Mass. Highway, when the NOI uses best management practices and articulated measurable goals, as we see in this Notice of Intent, will, essentially, be a formality at best.

I think that's the sum and substance of my comments. I'd like to thank EPA for the opportunity to testify this morning.

MR. WEBSTER: Mr. Colburn, there was one reference that I didn't quite catch. About halfway through, you talked about EPA, itself, had operator must include interim measures and milestones in BMP reports. Was that the preamble of --

MR. COLBURN: That was in the preamble of the '99 rule, correct.

MR. WEBSTER: Okay. Thank you.

MR. COLBURN: And I have citations, if you'd like them afterwards. Thank you again.

MR. WEBSTER: Thank you.

Caroline Hampton, do you wish to speak?

MS. HAMPTON: No.

MR. WEBSTER: Roger Frymire.

MR. FRYMIRE: My name is Roger Frymire. I'm a

Cambridge resident, not a member of any of these watershed organizations. I'd like to thank the EPA for holding this hearing, and I'd especially like to thank Mr. Barbaro and Mr. McCullough for showing up. It's a vast improvement over what happened at a similar hearing for the DCRs permit.

I'll start by saying something good about each of the organizations. First of all, the Web site for the Mass. Highway Department has, both, its NOI and its Stormwater Management Plan posted. That is much better than the Turnpike Authority has managed.

And for the Turnpike, I will say that a few months ago, I sent Mr. McCullough some data from water quality testing I'd done for an outfall at the Allston/Brighton rail yards which includes runoff from the Mass. Turnpike. It was a single sample from a storm which I told him showed anomalously high bacteria from what I'd sampled there in the past, and I didn't expect a lot of response to a single sample, but he, at least, made an effort to answer my question on whether there'd been any changes in the drainage system between samples I'd taken four to five years earlier which showed this outfall was clean and the most recent sample. I'd like to thank him for that.

My comments, other than congratulatory, are as follows. Three months ago, I sent both of these gentlemen and the EPA my comments in the earlier part of this process

on their NOIs and Stormwater Management Programs, and in that three months, I was actually hoping that a few of the simpler things that had to do with the public process and public notification and, specifically, with the information that's on their Web site might be improved.

I asked that, beyond just the NOI and Stormwater Management Plan, they consider posting their yearly reports, and I also wanted each of them to post, at the top level of their stormwater Web page, not their entire agency Web page, just at their stormwater Web page, at the top level of that, a contact information for a specific person, a specific Web address and specific phone number so that, when the public sees something they think is wrong, it is moderately easy to find a contact.

If you go on to the Highway Department's Web site and read all 200 to 300 pages of their NOI and Stormwater Management Plan, you will, eventually, find a page with some contact information. That is way too deep. And the Mass. Turnpike Authority has nothing of the sort.

My last comment has to do with some information that was included in the Mass. Highway Department's comments I sent in earlier which spoke to some specific outfalls along Route 1, in Revere, which the Mystic River Watershed Association had, on multiple occasions, tested as being anomalously high with fecal bacteria. One of them actually

has toilet paper visible.

And I was hoping that sometime in the last three months, they would see fit to do some of the analysis and elimination part of the IDDE, Illegal Discharge Detection and Elimination. I've already done some of the detection part. I would hope that they would have been working on the last one, the elimination.

Thank you very much.

MR. WEBSTER: Thank you, Mr. Frymire.

That's all the cards that I have, so at this time, I'd ask if there's anybody else that did not get a chance to speak, if they wish to make a statement for the record during the hearing?

(No response.)

MR. WEBSTER: I'd also ask, I'll give an opportunity if somebody that spoke before and heard something else they want to react to that would like to speak again?

(No response.)

MR. WEBSTER: Seeing nobody raising their hands, I'd like to thank you for the comments this morning. I think we've heard a lot of thoughtful comments. I appreciate the attention that so many people have given to this, both, from the organizations, as well as from the commenting agency. I think there are a lot of ideas out

there, a lot to think about for a challenging, as well as very important, process for EPA, as well as for everybody in this room.

Please, be sure that any written comments, that you've submitted to David Gray. Written comments will be accepted until the public comment period closes at midnight tonight, February 17, 2006.

I hereby close the public hearing. Thank you.

(Whereupon, at 10:25 a.m., February 17, 2006, the above matter was concluded.)

CERTIFICATE OF REPORTER AND TRANSCRIBER

This is to certify that the attached proceedings in the Matter of:

RE: NOTICES OF INTENT SUBMITTED BY OPERATORS SEEKING AUTHORIZATION TO DISCHARGE STORMWATER UNDER THE U.S. EPA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) GENERAL PERMIT

Place: Worcester, Massachusetts

Date: February 17, 2006

were held as herein appears, and that this is the true, accurate and complete transcript prepared from the notes and/or recordings taken of the above entitled proceeding.

Jody Perkins Reporter	February 17, 2006 Date
Susan Hayes Transcriber	February 28, 2006 Date