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DIVISION OF WATER QUALITY STANDARDS

AND ASSESSMENTS

IN RE :

NJPDES Municipal Stormwater :

Permit Renewal :

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HELD BEFORE:

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DAN KENNEDY, Assistant Commissioner, NJDEP, Water Resource Management
JIM MURPHY, Bureau Chief, NJDEP, Bureau of Non-Point Pollution Control
BRIAN FRIEDLICH, P.E., Kleinfelder Project Manager

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MR. COSGROVE: Good afternoon, everybody. My name is Jim Cosgrove. I'm the Chair of New Jersey Clean Water Council. We're going to get started now. I'd like to welcome you to our 2016 Clean Water Council Annual Hearing. You may think that it seems like it was just a few months ago when you we had our annual hearing. We moved it up a little bit this year.

So rather than having it in December around the holidays, we took this as the opportunity to get into a more reasonable time when we had a very interesting subject to talk about, so that's why we're here today, so our topic, as you all know, is the Municipal Stormwater Permit Renewal. It's been posted on New Jersey DEP's website.

This is, as I said, a renewal of the existing Municipal Stormwater Permit. The other thing I should mention, because I know I am going to make this mistake. I'll start using acronyms like MS4. MS4 is Municipal Separate Stormwater Sewer, so MS4 permit is what many people refer to the types of permits that we're talking about today

So I just thought it would be wise

to start with a little overview of the Clean Water Council. We have these hearings once a year. Some of you may have attended prior hearings, and I just wanted to say a few words about the Clean Water Council. We're an advisory council to the DEP on water resources issues, and one of the things that I think is a real benefit is the diversity of the council.

We have people from many different walks of life on the council, and that enables us, I think, to provide better insight to the department. We always joke about is if we can agree on a topic, then there's a good chance that if DEP releases some new regulation or new policy, that it will be vetted a little bit better through the input of our council. So we think it's a great -- we provide a great sounding board for DEP on issues like permits, which we're talking about today

So before we move into the program, since we have a small crowd today, I thought it would be a good idea to have each of the council members introduce themselves and just state what group they represent on the council. I think it will give you a good sense of the diversity of

the council, so I'll start. I'm Jim Cosgrove. I work for Kleinfelder. I'm the chair of the council, and I also am representing the New Jersey Society of Professional Engineers on the council. Jessica.

MS. SANCHEZ: Jessica Sanchez. I'm Vice Chair of the council, and I represent the Delaware River Basin Commission.

MS. STURM: Chris Sturm from New Jersey Future, and I am a public member.

MS. BERG: I'm Gina Berg. I represent the New Jersey Association of the Counties, and I'm Second Vice Chair.

MR. VALENTE: Tony Valente, New Jersey Department of Labor. I represent the commission.

MR. REQUA: Good afternoon. Jim Requa representing the Commissioner of the Department of Community Affairs.

MR. FURNARI: Russ Furnari, and I represent the New Jersey State Chamber of Commerce.

MR. BAKUN: Hello. Geroge Bakun. I work with Phillip representing New Jersey BIA.

MR. MINCH: Frank Minch, New Jersey

Department of Agriculture.

MS. HEINRICH: Helen Heinrich, New Jersey Farm Bureau.

MS. HOLDEN: Mary Anna Holden, New Jersey Commission of Public Utilities.

MR. NEELY: Lou Neely representing the League of Municipalities.

MR. CACH: I'm Stan Cach. I'm representing NJ DEP.

MR. MONACO: Vince Monaco. I'm one of the alternate members of the New Jersey Advisory Council.

MR. COSGROVE: Thank you. So just thought of something that's very important. If you need the rest rooms, they're behind the back wall. You can either go out the side doors or the back doors, and Lou tells me that the coffee for 65 cents in the machine back there is not bad, so if you start getting a little tired, then you know where to go. So each year, the council is required to have an annual hearing on a subject related to water resources and especially related to statute, rules and regulations.

Today we're focused on the MS4 permits, preliminary draft permit that was

recently issued by DEP. The permit's an update to the permit that's already been in effect with a few more requirements than previously was in effect, so today, you got the opportunity, those of you who are here, to testify or to just listen, to learn more about the details of the MS4 permit and be part of the process before the formal draft permit is issued. It's a good opportunity to have input at a time where your input can truly be reflected in the permit.

We're also going to provide some insight as to how municipalities can go above and beyond municipal permit by implementing stormwater treatment system retrofits to reduce flooding and improve water quality. So I believe that stormwater issues are going to be in the forefront more and more as we go forward. We've spent years focusing on point source discharges, waste water treatment plant discharges to the environment and we've made great strides in terms of improving water quality as a result of the upgrades to our waste water treatment plants.

But now, in order to really solve flooding and water quality problems that remain in the state, we're going to have to tackle the

non-point source pollution and the stormwater, the Municipal Stormwater Permit, is a permit that gets at that issue and it gets added in a little bit different way. Many of you are familiar with the New Jersey stormwater Management Regulations. Those are more oriented towards new development. Here, on the municipal permit, we're talking about stormwater from existing development, and that's really something that we have to focus on if we're going to improve both flooding and water quality.

So that's what we're doing here today, so if I could just quickly go over the agenda, and then I'm going to turn it over to Dan Kennedy as our keynote speaker. Dan is, as I said, is going to be our keynote speaker and will spend a few minutes talking to us about the priorities of the department and the stormwater issue.

Then Jim Murphy is going to talk to us, also from DEP, is going to talk to us about the permit itself, the details of the requirements in the permit, and then Brian Friedlich, from my office, is going to talk to you about some stormwater retrofits that we've

done in municipalities to improve water quality and flooding. After that, we'll have a brief question and answer period, and then around 2:45, we'll probably start taking public testimony, so that's our day.

At this point, I'd like to introduce Dan Kennedy to you. Dan, we really appreciate you coming here today. Dan is the Assistant Commissioner in charge of Water Resources, and I'm going to turn the program over to him.

MR. KENNEDY: Good afternoon. Nice to be outside of Trenton and not talking about lead, so on behalf of Commissioner Martin, I appreciate the opportunity to come here and speak with you. Also appreciate the accommodation on the schedule. We know that Commissioner Martin was in front of this group giving a keynote type observations, it was in the fall, and nothing changes a lot in a couple months.

So I'm going to be a little shorter on the bigger picture and try to focus more on our goals of the stormwater program of DEP. And Jim really t'd it up for me pretty nicely. Commissioner Martin has expressed to the council members, and to the group publically, that he

really values this group as kind of a prime vehicle for input, and your input does inform next steps.

Our approach here to this permit was not to get too far down the road before taking some legitimate public comment. When we say legitimate, I don't think Jim Murphy -- what we meant by that, but we have Jim scurrying throughout the state, including Michelle, Janice as well, all over the place trying to educate the public and most focused on the municipalities who received this draft who actually have to operate on it.

My perspective is not mostly from Trenton. My perspective more has two roles. First role, when I was at Burlington County, I watched Gina Berg trying to scurry around to get counties to comply with the existing permit, and I understand the huge challenge that was and the enormous effort, not only on municipalities, but counties go through an unshared service to meet the goals of the current program, and I guess my second role that I think helps me understand this a little bit better, as I sat, for a decent amount of time, on my local planning board.

I sat with folks who knew my community inside and out, as I'm doing as a resident in the community I live in now, got folks that really know the blocks in and out, but if you talk to them and Miss Jones, who I sat next to, was a really nice woman, cared a lot about our community, but if you talk to her about the details of stormwater, and Mrs. Jones is making some pretty big decisions along side me on these issues, not to be critical of Miss Jones, and Miss Jones is a fictitious figure.

Miss Jones doesn't exist, but for example, there were members of the planning board I sat with that were making big decisions on very practical and important matters, not only to the private property owners but to the community with always a lot of training or understanding of the role it has under the MS4 program, so I've always served on many regional boards and commissions and have a pretty big perspective of stormwater from a regional perspective.

That being said, it's the observations from staff and the experience of staff that drove this, so congratulate first our staff for putting out, what we think, is a very

quality work product. Clearly there is vetting and some tweaks before we go as a final draft, but I'm going to speak to you about process around -- the observation is we don't know exactly always the perfect thing to do from our seats at Trenton.

So I think hopefully this expresses to you our knowledge that we know we can't get it right from just operating from Trenton, and also we're willing to listen and are listening and are willing to adapt this permit to become more understandable and more responsive to the statutory and regulatory obligations of the framework here in New Jersey. We also note a lot of similarities in this approach with many of the things that have been said about asset management from podiums like this from discussions with the Clean Water Council.

Stormwater, like almost every issue that we face in water resource management, can't be properly addressed without a proper inventory, assessment of criticality of that inventory, proper thinking through of the schedule for replacement. A proper thinking through of the maintenance and upgrades needed to make sure that

standards are met, so stormwater is like many of the other issues that we talk about in this sphere of water quality in New Jersey.

And you'll see a lot of similarities to our approach in this permit to the CSO permit that we issued in that final last summary. In fact, some of the check list on asset management, there was a lot of shared language, shared vocabulary and we think that only helps the regulated community to understand these issues a little bit better and therefore make it easier for them to apply for the permit.

The purpose of this hearing too is to receive ideas, not for me to filibuster here and tell you what's in the permit. Jim is going to do a much better job than I could do in terms of the technicals, so I'm going to be here listening, but I wanted to share some of the bigger picture objectives with the stormwater permit, which may be apparent to you, but if it's not, I'm going to help articulate a little of that.

We think this revised permit will assist communities, reduce flooding through an approved operation, the maintenance of stormwater

facilities and also, as a corollary, improve water quality to the proper stormwater management, supportive operation, the maintenance of stormwater facilities through inventory and mapping. I suspect that many of the folks that -- what we are trying to overcome is rules like this for the Clean Water Council are seldom filled with folks that actually have to run these permits, which is why this room is important from a high level policy perspective.

It is important for everyone to understand, but it's infrequent, when there's actually folks from the DPW offices, the guys and gals that actually have to do this work in the maintenance. It's seldom that you can actually get those people in a room like this which is why we're going throughout the state to meet with folks directly and trying to get the input of the folks that are actually working under this permit.

We think by doing that, we'll have a better understanding of the system within the municipality. We also think that by listening first, we're going to be able to refine our tools and training that we have on-line now. Much of

it's already kind of launched from a draft perspective, but we think by listening first, we can improve education training opportunities at the local level.

Jim and Janice and Michelle, and the whole team, has spent a lot of time with some select audits of the performance under the stormwater program, under the existing permit, and we've learned a lot. We've applied what we've learned under that audit process to improve this. What we heard from communities is that the existing language is really hard to understand, the organization of the permit was really confusing to them.

And therefore, we've come to the conclusion that many communities didn't really understand what their authority actually is, and therefore, if you don't understand where your pipes are and your outfalls are, if you don't understand what your authority is and you don't understand the permit, how can we ever expect to get the outcomes from a flooding and water quality perspective?

So some of this is a simple reorganization, translation into some language

that a human being can understand, to insure that we can really -- all be speaking from the same vocabulary, and there are aspects of elimination or rejiggering of permit requirements for specific municipal operations to make sure that duplicative efforts at the municipal level are eliminated to make sure that these municipalities are kind of reporting to one permit God as opposed to multiple, so we do want to have an open transparent process via feedback and input.

We have spent a lot of time thinking through the process of vetting this information it to the public. Just for some example, we've held both small work groups from a regional perspective. Many of those have either been completed or scheduled. We had a webinar last week with the League of Municipalities. We've had meetings with groups like this and including League of Municipalities, EPA Region Two, Environmental Stakeholders, the Watershed Institute, Stonybrook, and Municipal Society of Engineers, and we're going to continue to do that.

We receive feedback which ranges from positive, negative and everywhere in the

middle. We understand some of the challenges we face under the permit which is why we are kind of enlisting in one right now, but we didn't want to have open listening sessions and nothing to respond to. Hence, our approach of launching a predraft of the permit. Folks can actually see what we're talking about as opposed to us talking to -- understand what the requirements would be, so there's some connection to respond to, and we received recommendations on approving the permit as well as how we can better support permittees along the way in the past month or so and we expect that to continue today.

We expect the work product that's delivered to us after today would also help us inform and we're going to continue to work through the summer to refine the permit, and the expectation in the fall is to have a draft permit live for the official public comment period, and hopefully by the end of this calendar year, early into next calendar year, to have an effective final permit moving forward, and I think those are the five points I wanted to touch on.

I'm not going to go over the concerns we've heard or the encouragement that

we've heard. Jim is going to do a little bit of that. We can maybe entertain some Q and A. After you hear from Jim, we can share with you some of the things we've heard in the public meeting process so far, so with that, I want to say thank you for listening. Thank you for attending, and I look forward to your participation moving forward.

(APPLAUSE)

MR. COSGROVE: Thanks, Dan. We appreciate you taking the time to join us today and give us your overview. Now, we're going to hear the nuts and bolts. Jim Murphy, Bureau Chief of the Bureau of the Non-Point Pollution Control is here to talk to you about the permit itself, and I keep saying the word permit. It's actually two different permits, depending on what municipality you're in, so you'll hear about that from Jim. It's all yours, Jim.

MR. MURPHY: Good afternoon. First, I need to say, as Dan said, thanks to the Clean Water Council for giving us the opportunity to, again, do a road show and provide the nuts and bolts of permit. What I'd like to do is I'll give you a summary of the major changes to the

permit, go over how it impacts, as Jim Cosgrove said, the A and B. A lot of our road show that we've been doing has been focused on the Tier A, but now that we have Tier B out, we can do a summary of what's going to be different in that permit as well.

One of the first things you'll notice, as part of this permit, if you're familiar with the previous permit that was issued, this permit has been rewritten and reorganized. The previous permit that was issued was along part one. This permit now consists of four parts and it is parallel to the design of other permits that the department issues.

So background. The MS4 universe in New Jersey, there is about 460 municipalities that are subject to the Tier A permit. A little bit over 100 of municipalities that are Tier B are subject to the Tier B permit. The plan, you'll see what the schedule is going forward. The plan is to do the Tier A, Tier B on a concurrent basis, and then some time probably next year, we'll follow up with public complex and highway agency permits.

All the MS4 permits all expired back

in 2014, so we've been working on them since the expiration date to get them out. Under the MS4 permit, it does require that the municipalities continue to implement the program consistent with federal obligations. It will require the continuation of the stormwater management program that municipalities have been required to implement under the previous permits. The initial permit was issued under 2004, renewed again in 2009.

The permit requires that municipalities develop measurable goals that quantify improvements under the permit and it also will continue the implementation and required implementation of the statewide basic requirements or SBRs, and you can see the SBRs are listed there. Post construction is highlighted. That is applicable to both Tier A and Tier B municipalities, and that's been a requirement since 1983, the rule from 1983.

Here is a summary of the major changes to the permit that we're looking at. I'll go through each of these in a more detailed manner, but what we're looking at is a detailed inventory of mapping to support maintenance

operations, additional educational requirements at the local level to insure proper design and proper review of stormwater facilities.

We're going to incorporate total maximum daily load information into the SPPP as well as there are requirements under the permit that will facilitate permit transparency and eliminate some duplication of unnecessary permits. As far as these requirements go, these are mostly applicable to Tier A.

The Tier B is required to conduct local review, but they can garner education points by taking necessary training requirements at the local level and I'll go into that in a little bit of detail. So with respect to the permit conditions for outfall mapping and inventory, the current permit requires only outfall pipes be mapped.

This permit is going to have additional layers in it and require that facilities map stormwater basins and manufacture treatment devices that are put into place as well as maps, subsurface infiltration detention basins and any green infrastructure, and with respect to some of these, you can see the footnote of

approved DEP for outfall pipes and basins and NDTs. We're requiring that all those items be mapped for infiltration basins and green infrastructure.

We're only requiring that those items be mapped once the permit becomes effective, so going forward, those items need to be mapped. So why are we requiring this mapping? To insure that the publically owned facilities are properly operated and maintained and the requirement that the municipalities insure proper maintenance of privately owned stormwater facilities and stormwater BMPs.

What we're hoping is, through this effort, at the end of the permit cycle, the municipalities will have a digital map of their municipality noting all the stormwater facilities. We'll allow them to maximize the resources to target areas where they may be having problems within the municipality, whether it's flooding issues associated with improper maintenance, street sweeping that may need to occur in one area more frequently than another, and we're hoping to get approval work quality and address water quantity issues and flooding

issues.

The mapping requirement and inventory requirement, it is a new requirement and there is a time frame for implementation. The inventory is required effective date of permit plus three years, and the mapping is required four years after the effective date of permit. With respect to the inventory mapping, we're not looking for municipalities to start from scratch. There is currently, as we've been going out and doing this road show, there is a lot of information that different entities are collecting.

Some municipalities have conducted a lot of mapping. There is a lot of mapping and inventory going on at the county level. You have other entities such the highlands, the meadowlands that are doing a lot of mapping. In the upper left you'll see a screen shot from the Rutger's HH database. This database contains over 20,000 basins that were built within the state. The top right you'll see what we're looking for is permit specific guidance. When you go out to take the data point, there are certain criteria that we'll require be collected.

We will develop that data dictionary and provide that to municipalities to use, and again, at the end of this process you'll have a map, something what looks like in the lower left corner, to show you what your inventory in your municipality looks like. We're hoping to make this inexpensive. You don't have to go and purchase GIS units. You'll be able to use a tablet, a smart phone, any kind of handheld device to complete the mapping.

So what we want to do is pull all the existing data together, whether it's from outside forces, what municipalities have already collected, all that data in-house and be able to farm it back out to municipalities, so that will be the initiation of the mapping process. Again, there's a lot of county data. As we're going out and doing our county by county outreach, we are inviting counties. We're inviting soil conservation district personnel.

They're going over all the information that they've already collected, and some cases, providing us and letting us know that they have more information than what we even thought, so we want to coordinate all this data,

pull it together, put it in a database and then give it back to the municipalities as a starting point, so we're also trying to create something that's easy to use for both ends of the spectrum.

As I mentioned, we have some municipalities that have conducted inventory and mapping already. There is some municipalities that really haven't done anything. They might have just a paper map with just the points on it, so we have to find something that meets both entities that both entities can use and we don't have to reinvent the wheel.

We plan to provide detailed guidance on the inventory requirements, and once that is done, we will be conducting training, whether at a local municipality, at meetings such as this, when we can do training to provide information on the necessary mapping requirement. We're hoping that we're in the process of developing the app at the current time. We will be conducting a pilot program. We're working with our OIRM folks and Estre as a contractor.

We're hoping to develop an icon that will facilitate the mapping process before the end of the calendar year, but we're still working

on that to develop that. As part of the maintenance requirements, as Dan mentioned, we've already done a lot of work with respect to what we're looking for under the permit, so we've developed field manuals and check lists that can be used by the municipalities to foster compliance with the permit requirements. This information is currently posted on the DEP web page. It's downloadable.

The facilities can go on there, download the checklist templates to help them comply with the permit requirements. And again, this information is already on the web page. We've developed training videos to help design engineers and municipalities with respect to the requirements under the permit, help them understand how some BMPs should work, what failing BMPs look like, some steps that we're taking to conduct maintenance of the BMPs.

So all this information, again, is already on the DEP web page and can be viewed from there. With respect to review at the local level, as part of what we've done to date, at the local level municipalities are required to review major development and insure compliance with the

post construction standards and the regulations at semi colon eight. This rule will require additional training at the local level.

There's already training requirements for stormwater engineers. The department offers this training in conjunction with Rutgers. We offer it on an annual basis, usually June. What we plan to do is we like to bring that training in-house. It's currently, the training is done by DEP personnel. We hope to be able to bring that training in-house, offer it back out at no cost to municipalities and offer it more frequently than annually.

We can also plan to do localized training at different parts of the state. We're requiring trainings for municipal council and board members. This is a high level training to make sure that they understand what the requirements are in the department. This is a 45 minute training video that is available on the web. It's currently there now, so they can take it at their -- whenever they have the time to take it, they can go on-line and take it.

We're also requiring the use of the major development stormwater summary form. This

is a form that highlights some of the key items when conducting a review of BMP design for stormwater, so we're looking for municipalities to complete this form. Whether you're a Tier A or Tier B, this form will be required to be completed for any BMPs that are being proposed as part of the major development in the municipality. This form does not need to be submitted to the department, but rather will just be held by the municipality and move along with the process, and can be updated as that process moves forward.

So why are we doing this? Well, we're trying to reinforce proper application of the standards at the local level and improve water quality and address flooding issues. This is a new requirement. So there is a time frame to implement these requirements. Just like to point out for the major development stormwater summary form, that has to be used by municipalities, whether you're Tier A or Tier B, once the permit becomes effective and going forward.

As part of the process to improve the understanding of the requirements, the

department has a BMP manual that is used. It gives design information on different BMPs. Over the past 18 months, the department has put a lot of resources in to rewriting and reediting the BMP chapters for particular stormwater BMPs. These chapters are not new requirements, but rather they've been rewritten to make it an easier read. Each chapter now has a new front page and you'll see these are some examples of what the front pages look like.

Here is a close up shot of one of them, and it gives the engineers or municipal officials just a quick review of what a particular BMP can be used for, what water quality criteria it would meet if it's a ground water recharge, if it's a nonstructural strategy. So this front page is like a facts sheet for the BMP and they can look at the front page.

If they need more details, they can go in and see it, but each BMP has been rewritten to include this information. It includes new graphics on it to make it easier to be understood. When we vetted these, I think probably about a year ago, we did a couple and vetted them and we had a positive feedback from

the engineers on the way it looked and the way it was rewritten.

The department also posted training videos to help municipalities, design engineers, reviewers understand some of the requirements of the BMPs, of the stormwater permit, et cetera, so there are short videos on here that we've added under the training web page, the DEP training web page. I'll give you some more information on where this can be found, but again, all this information is available on-line.

You can go and look at it now, and we're hoping that this provides additional information to help reviewers and designers understand the necessary requirements. And we will continue to add more updates to this moving forward and we get feedback based on our outreach or permit content on what folks are looking at in terms of additional educational requirements that they would like to have, additional understanding that they would like for us to put forward.

I mentioned for the board and council members, there's a 45 minute video. It's entitled Asking the Right Questions, so it gives high level overview of the permit requirements.

We've developed this in concert with Rutgers, and again, this is something that's currently posted on-line, so this video is about 45 minutes long, broken down into three segments. Each segment is approximately 15 minutes long. One of the things I touched upon was the major development summary sheet.

This is just an example of the top page of what that sheet looks like. Again, it needs to be filled out for every development, for every BMP that gets approved at the local level as part of a major development. This is currently attachment D of the permit, of the preliminary permit, so if you guys get a chance to take a look at it, you have any comments on the whole permit, and this check list in particular, we certainly appreciate your feedback on it.

Another requirement that's applicable to the Tier A municipalities, is the total maximum daily loading information and incorporate that information into the pollution prevention plan. What we're requiring is that all the municipalities identify any impaired waterways that would be within or bordering the

municipality; that they identify any additional strategies that they can use to address particular pollutants that are identified in the TMDL, and that the SPPP be updated on an annual basis to incorporate some of the strategies that were developed by municipality or maybe expressed in the TMDL document.

We're hoping that by identifying and understanding that there is a TMDL to address impaired waterways, that municipality can refocus its efforts on particular sections of the township to identify maybe particular ordinances that need to be better enforced, additional street sweeping that may be necessary to further reduce some of the pollutants.

So again, we recognize that there are limited resources at the local level and we hope that this supports improved water quality. Because this is a new requirement, there is a schedule to implement this, so as you'll see in the permit, there is a one year time frame to implement this requirement at the local level.

In an effort to assist municipalities with this requirement, the department developed what we call a TMDL look up

tool, and you can see, if you go to the department web page, and again, this is something that is currently on-line and is live. It can be used. You go to the web page, you pick your county and municipality and it will bring up the summary of the TMDL document you see there in the lower right hand corner. It will show you the waterways for which a TMDL was developed.

It will indicate the particular pollutants that are identified as needing reductions, so you still have to go through and read what's in the document, but it gives you access to the document itself, it gives you an understanding of what the impairments are and what the particular pollutants are.

One thing I want to point out about the look up tool, as part of our outreach, we've had someone identify that in their particular municipality, they use this look up tool, but it brought up waterways that were not within or bordering the municipality, so a lot of this is based on GIS and there's a lot of behind the scene work on this, so we've identified that bug and we're attempting to fix it now.

So if you do happen to go and pull

up the information for your particular municipality and you see that it's bringing waterways that are not within your municipality or bordering municipality, we appreciate it, if you let us know so we can fix any other issues that we see going forward. The permit also requires additional transparency. Many municipalities are already complying with this requirement by posting the SPPP, the ordinances to the web page.

This is a requirement that we're going forward -- that we're going to have all municipalities post this information to the web page hoping it fosters public involvement with the stormwater program, and it allows a better understanding of what the requirements are within a particular municipality. Another item that's included in this permit is we're dubbing it, elimination of duplicative permits.

The permit covers municipal maintenance yard activities, and it has requirements, if a municipal yard has vehicle wash water tanks, underground wash water tanks. It would require for maintenance of yards that are not connected to the sanitary sewer. The

current permit requires that you can't have any discharge from vehicle wash water, so in some cases, municipalities put in a holding tank to capture the wash water.

It turns out that this tank that is underground is an underground storage tank and would need and require a separate permit from the department, so what we've brought into this permit, to address that issue, we're requiring annual certification of the containment structure. There are forms in the permit that you need to fill out, and the municipality would just retain them on site, and there are also usage logs and pump out records that have to be maintained.

The permit also includes BMPs for yard waste and composting activities that occur at municipal yards, and again, we've incorporated these two requirements into the permit to address underground storage tanks and composting activities, so it eliminates the need to get other permits, and through this, we're hoping to insure protection of ground water and surface water quality. There are also -- we've done some internal coordination.

We've coordinated with our SRPs to insure that the documentation required through permit meets their concerns as well. Again, a new requirement, so municipalities do have a one year time frame to implement this requirement. The is just an example of some of the documentation required as part of the certification of the logs. Once every three years you have to do -- certify the integrity of the tank. You have to have information on the storage tank usage log, and as I mentioned, pump out records have to be maintained on site.

So as I mentioned, the permit is really, it's a rewritten document. We hope that the requirements are much more clear, more easy to understand which will lead to greater compliance. The permit does include a reference library. As you can see, there are a lot of links within the permit for documentation that will provide assistance to the municipality, whether it's state documents, state guidance or EPA guidance that is available to help municipalities to understand the requirements and different measures on this permit.

We don't believe that there will be

changes to the SPPP requirements. We don't expect that there will be ordinance change requirements at the local level. We modified the training language to make it more focused on employee duties. We reduced some of the frequency for training. Some of it was annual. We reduced it to biennial, and with respect to the public education opportunities, under the old permit it was 10 points. Under this permit, we've expanded that to 12 points, but we've expanded the opportunities for which the municipalities can garner points to comply with this permit requirement.

This is attachment A of the permit, and this is kind of a summary of the entire permit. If you look at the first column, the first column is just a summary of the standard that has to be met. Second column is the permit citation where you can find that particular language in the permit. Then you have the measurable goal, what we're looking for in terms of compliance with the permit, and then there's the schedule to implement

And lastly, if it's a new requirement, so if you see something that's a new

requirement, there should be an associated schedule with it. The only thing that does not have a schedule with it, is the major summary stormwater form that has to be completed for all developments going forward once the permit is approved. Everything else has a schedule to implement if it's a new requirement. For those of you that are familiar with the old permit, again, the permit is rewritten.

Things got moved around. This is a crosswalk. It shows you where things were in the 2009 permit, the 2009 site, and conversely, where it is in this updated 2016 draft, in the permit site 2016 draft. We've also completed an FAQ. FAQ, again, like all the other information, is currently available on-line, help explain or clarify some of the requirement conditions, and this one, I think this is for the Tier A.

Again, the Tier B permit, on-line, you'll see a copy of the permit. We also have the crosswalk for the permit and an FAQ for the Tier B as well. As part of better understanding of where these things are in the DEP web page, this is the new, what we deem the front door for the stormwater web page.

We hope that it's easier to navigate, easier to find things that are necessary to help municipalities and other permittees that have any stormwater regulation, to help them understand and help them to be able to better access the guidance that the department has available on its web page. So you see in this one on the bottom right is the MS4 permit icon. Once you go to that, you click on that. It would open up the Tier A, Tier B information, and you can delve further into the web pages.

There is also a stormwater training icon that will take you to the web page that includes all the different stormwater things that I just mentioned and additional training relative to stormwater requirements. Funding. Just put this up here because as part of our outreach, we've gotten some questions on, hey, where are we going to get the additional funds to implement these measures. So we are trying to gather different funding sources.

This is just an example of things that can be funded by our Environmental Infrastructure Trust Program. Things like street sweepers, vacuum trucks can be funded through the

program, so there is a link there. I believe this presentation will be made available to anyone that requests it. It will be put on the council web page, so you can click on that and find additional information relative to the funding program.

In summary, the Tier A permit preliminary draft, we're hoping we improve water quality and localize flooding. It does continue with the requirement to implement the existing program. The municipalities still have to implement the existing ordinances. The statewide basic requirements must be continued and be implemented on requiring the comprehensive mapping and inventory program to help municipalities target priority areas and track any system maintenance that may be completed and to maximize resources.

We hope that we've clarified in this permit the responsibility for privately owned versus publically owned stormwater facilities and what those requirements are. We've included additional training requirements within the permit. We hope that, through that training, again, we focused it on, you know, the needs.

It's not so general anymore. There's specific training for engineers, specific training for board and council members.

We hope that you can address local water quality improvements through existing municipal functions. Again, you already have the ordinances in place. There are maintenance schedules that we hope that you will be able to prioritize that would help you improve water quality impacts. You still have the post construction statewide basic requirements that have to be implemented and we've expanded the community outreach and education requirements.

I mentioned the Tier B is also out in draft, excuse me, preliminary draft and the Tier B is really just a subset of Tier A. It does require the local public education requirement. Under Tier A, the board council members are required to take the training. Under Tier B, it's not a requirement, but they can take that training and get points associated with the public education.

The Tier B does have the post construction statewide basic requirements. They're required to complete the major

development stormwater summary form that I showed you. Currently, you still have the maintenance requirements for basins, the ordinances that are replaced and there's also requirements for storm drain inlet design standards. What's different in the Tier B, they're not required to conduct inventory mapping.

There's no TMDL requirement, and the Tier B permit does not have the wash water and yard waste modules similar to the Tier A. The process moving forward, we come out with a preliminary draft of the Tier A back in February. We're doing regional stakeholder meetings. We began those in February. Those will continue through June.

To date, I think we've done four or five counties. We have three or four on the drawing board for the next two or three weeks. We've conducted, as Dan mentioned, we've conducted outreach for environmental groups, planning groups. We did a webinar for the League of Municipalities. We'll be going to Atlantic City for the New Jersey Association of Counties, so if there are other venues that you would like us to come and present and talk about the Tier A,

Tier B, we certainly welcome that invitation.

We released a preliminary draft of the Tier B back in March. Today is the public hearing. As part of our outreach, we have been, you know, fostering, hoping that people would come here today to hear this presentation today and give feedback on the permits of the Clean Water Council. I think your public hearing comment period closes April 15th; is that correct?

MR. COSGROVE: April 30th.

MR. MURPHY: So as we go around, again, we'll be doing outreach to the counties probably through June. We will continue to solicit input on preliminary draft. We're hoping in August, to issue a formal draft permit and then release the final permit in December with an effective date of February of 2017.

Once we issue the permits, then we have to work on issuing the authorizations under the Tier A and Tier B. This is just some contact information. The main bureau phone number is up there. And my name, as well as my Section Chief, Tim Doutt. Tim Doutt put a lot of effort into this permit and did a lot of preliminary

outreach, him and his team with reaching out to local municipalities, our enforcement groups, different consulting engineers to get feedback on the permit and help with drafting the permit.

If you're interested on who the particular case managers are for your county, there is a link there. You can go on our web page and find that information as well.

(APPLAUSE)

MR. COSGROVE: So we have a few minutes, so I thought it might be productive to ask if you have any questions for Jim or Dan on what they spoke about before Brian gives his presentation on stormwater retrofits.

MS. SORENTINA: I wanted to clarify on what you're talking about the wash water underground tanks and making it so that they wouldn't have to get other permits. Would that mean that they're not required to do the full underground tank registration for those, or is that still --

MR. MURPHY: No. If those forms are completed, that would comply with those requirements, but there is associated integrity testing that's required, and if you look through

those forms that are within the permit, the requirements are within those forms that need to be completed.

MS. SORENTINA: Okay. So the tank still needs to be separated through that separate division?

MR. MURPHY: Yes.

MS. SORENTINA: Christine Sorentina.

MR. MOREL: Rich Morel representing the Municipal Engineers. The Municipal Engineers will be sending in a formal comment letter shortly, but basically, their comment is the Municipal Engineers certification program, which I know you should be aware, initiated way back in -- well, it started in 2004, but in 2008 -- and the premises, since there is a certification required to document the actual stormwater BMP that's being approved in a development or redevelopment project, for conformance with the stormwater rule and a local ordinance and whether or not a mitigation strategy was approved by the town and implemented on any particular project, the thought was that the municipal engineer certification could be utilized by applicants going forward that in place of stormwater review

done by the department in a land use application.

But at a minimum, this should be implemented now as a documentation and to achieve consistency consistent with what you're proposing with the training and implementation on each municipal engineer. The thought here is that this is the opportunity to implement that process, and there was a pilot program that was attempted, but unfortunately, the economy down turn, there weren't enough applications to actually demonstrate the proficiency of the municipal engineers, so this is the time to implement that.

That is basically what the letter will say, along with some other issues regarding the mapping, and the financial support for some of that and then also, the permit should, I believe it does, cross reference the guidance document for maintenance.

MR. COSGROVE: Any other questions? We will have plenty of time for testimony in a few minutes, but right now, I thought you might have questions on the program specifically.

MR. PAGE: Hi. My name is David Pavion. I want to ask you one thing. Is

anything new regarding impervious pavement? I know you were supposed to upgrade regarding the impervious pavement?

MR. MURPHY: Yes. The impervious paving BMP has been posted to the web. It is currently -- we are soliciting comments on that BMP, so you should have received -- they sent out some E-Blasts. Comments were due, I believe last week on what was proposed. Unfortunately, we did not get many comments, so we extended the comment period for another 30 days, so if you look at our web page, it's posted there, and we appreciate any feedback and input you have on that.

MR. MINERVINI: I'm Bill Minervini. It says the Clean Water Council is accepting comments until April 30th, but the DEP notice says DEP is only accepting comments until this Friday, April 15th. Have you considered extending the DEP date to April 30th? It doesn't seem to make sense we can send comments to the council by April 30th, but the comments to the DEP have to be done by this Friday.

MR. MURPHY: Well, it is only preliminary draft and we've tried, as far as DEP was concerned, on the preliminary draft, not to

have an open ended but to put a date in there. I will say, Bill, that we're conducting additional outreach and we are continuing to accept those comments.

MR. KENNEDY: We're going to accept those comments, at least until the end of April, and it's a non regulatory process, so we've got a lot of discretion there, so we're going to apply that discretion to accept those comments, and frankly, after April 30th. We have to put some break points in there for our work product, but you know, if a good idea comes in, on May the 2nd, we're going to listen to that good idea, so please keep the comments in, but please help us administratively by getting the comments in at the time frame we recommend.

MR. COSGROVE: We're going to move on now. I want to introduce Brian Friedlich now. Brian is the project manager at the Kleinfelder Princeton office. He has more than 10 years experience of private water resources consulting with specialities in stormwater management and environmental permit and waste water treatment. He's a professional engineer in New Jersey, holds degrees from Tufts and NIT and serves as the

chair of the New Jersey American Water Resources Association Stormwater Committee.

Brian has worked on many residential commercial and municipal projects that incorporates state of the art stormwater facilities, and he's now going to talk to you about some of the award winning municipal stormwater retrofit projects he's been involved with to provide examples of how municipalities can implement techniques to mitigate flooding, erosion and water quality issues, so with that, I will get Brian's presentation up and turn it over to him.

MR. FRIEDLICH: Thank you, Jim. I wanted to thank the Water Council for inviting me to come speak to you today. I'm going to take a step back here from the details. Jim did a great job of talking about the specifics of the draft MS4 permits, but I wanted to take a step back and talk about stormwater a little more generally, introducing stormwater concepts and then talk about some stormwater BMPs and stormwater retrofits that we have worked on in the past when we're looking at water quality and water quantity improvements in municipalities and watersheds.

To give you a quick overview of what I'll be talking about. First, why do we need stormwater management? Why do we need these permits? What are the issues out there? This is kind of an introductory that most of you are familiar with. I'll then go into stormwater management retrofits and BMPs, talking about the different categories, what green infrastructure is, so on and then I'll dive right into the two case studies that I wanted to talk about today. One is the redevelopment of a property in Montgomery Township for a community center, and second is for the Ramanessin stormwater retrofits for a series of projects in Monmouth County.

So in 2004, FEMA declared that flooding is New Jersey's number one natural hazard, and that's certainly been proven right over the past decades where we've had some major natural disasters of flooding on the fresh water stormwater side. Looking at Hurricane Irene in 2011 which had some major, major impacts. Also some major flooding in the Delaware River from 2004 to 2006.

I also wanted to emphasize here, it's not just about these major extreme events.

We've also noticed we do a lot of water quality sampling, monitoring. We've been noticing that flooding on the local level has been occurring much more frequently, it seems like three or four times a year, so there is definitely the observance of more frequent flooding which has its impacts. I also wanted to talk about water quality impairments. I did want to mention here that the draft 2014 integrated water quality assessment report and draft form has been released which includes a 305B report and 303D list.

And from that report, looking at the executive summary, these are kind of a list of the more most common impairments that are seen in New Jersey ranging from pathogens, toxics and metals, nutrient impediments and then down to DO, dissolved oxygen, PH solids and temperature, and I threw up some pictures here that we've taken in doing sampling and those such things and so there is a picture here of an agricultural potential pathogen source in head waters of a watershed.

There is a picture of severe erosion on the top right that's occurring in Monmouth County due to excessive flows. On the bottom

left is a picture of the Passaic River in Newark where there is issues with metals, toxics, trash debris, and then on the bottom right is a picture of the Millstone River upstream of the confluence with the Raritan where there is nutrient issues, algae blooms, et cetera.

So in moving forward now, talking about stormwater management, how we can address some of those non-point source issues with retrofit and stormwater DMPs. So one thing I wanted to mention here first off is that the MS4 permits require that the stormwater management regulations be implemented for new and redevelopment projects.

So this is part of what we're building new infrastructure. We're implementing appropriate stormwater technologies that treat and manage stormwater properly, but municipalities can also improve the effectiveness of existing stormwater infrastructure through retrofits which is what I'll talk about in some of these case studies. So municipalities should be looking for opportunities that they can implement to improve water quality and stormwater runoff and mitigate flooding and erosion.

I also wanted to mention here that NJ DEP guidance of stormwater BMPs is in the stormwater BMP manual. There's also a lot of good training, as Jim mentioned, that's located on the DEP website. I wanted to go through what are some of those stormwater planning tools and methods that we look at, and I like to group this into three different categories. The first being non structural strategies and impact development. You can think of this as more of on the planning stage. How can we develop a site? How can we look at a site so we can preserve wooded areas?

We can preserve environmental sensitive areas. How can we use vegetative conveyance wherever possible instead of directing pipes and sewers to streams? And then how can we take those impervious surfaces and how can we disconnect that runoff with streams and managing it on site. That brings us to the second bucket here which is green infrastructure.

Green infrastructure is defined by EPA at the scale of a neighborhood or a site as stormwater management systems that mimic nature by soaking up and storing water, and you can think of these as more distributed systems

throughout a site that collect, treat and infiltrate and recharge the ground water. They're distribute systems, so I gave some examples here as rain gardens, green roofs and impervious pavement.

And then the third bucket here is the structural best management strategies and there is some overlap here between all three of these, but these I think of more as the more centralized larger detention basins, wet ponds, constructed wetlands that you often need to use in order meet the flow reductions, especially from larger developments. So I wanted to go into the case studies at this point.

The first one I wanted to talk about is the Montgomery Township Otto Kaufman Community Center Redevelopment. So the development -- the redevelopment projects converted an old industrial building into a community center, and this is just a site plan showing the existing conditions. There was an existing warehouse building. There was parking lots on the site. There is also one centralized detention basin with kind of a traditional conventional concrete low flow channel.

There wasn't any real water quality treatment occurring besides what happened in that detention basin. I wanted to show some photographs. Unfortunately, these are snow covered photographs. It's not great quality, but just to give you a sense of what the site looked like predevelopment. This is a rendering of some of the best management practices that we utilized for the redevelopment, so we wanted to take this as an opportunity, this redevelopment project, to implement some of these green infrastructure and nonstructural ideas and improve stormwater treatment, water quality and water quantity, so on the left side, you can see there's kind of a linear blue path.

That's a bioswale that was installed with a series of check dams. The check dams were designed to slow the flow through that water quality swale before it entered the existing detention basin on the top right there. There's also in the island, which you can see on the bottom, that was designed as a bioretention or rain garden type of island where water from the parking lot can go in.

Instead of just going right into an

inlet, it can soak into the soils, infiltrate, recharge ground water. There's also an infiltration trench wrapping around the redeveloped building, which is roof runoff, and infiltrate and provide ground water recharge. The last thing I wanted to talk about on the detention basin side, we retrofitted that detention basin with native plantings to try to naturalize that area. We removed the concrete low flow channels and installed river stone in order to try to infiltrate and manage the stormwater on site as much as we could. Here are some photographs.

On the top left is a look at what the naturalized detention basin looks like. The top middle is that island bioretention system, and on the top right is the biosoil with the Gabion Check Dams and that was right after vegetation started to become established. You can also see that we used volunteer efforts to do plantings in the bioretention areas during Earth Day.

On the bottom right you can see that island bioretention system with the plantings in it. I wanted to segue from that real briefly to

talk about this idea of naturalizing detention basins. It's something that we see happening more and more. It's often viewed as a win, win situation in that you're providing more water quality benefits at the detention basin, but you're also reducing some maintenance needs in that facility as you're not mowing as frequently as it's not a manicured of a system.

And so I wanted to talk about some of the -- this is a figure that I took off of the internet from stormwaterpa.org, but this kind of describes some of the typical strategies that would be used in naturalizing detention basins including using native plantings as I mentioned, pretreatment for days, trying to design areas in that basin to infiltrate and provide water quality treatment so you can have rain garden pockets or design areas where you have more focused infiltration, trying to increase flow paths through the detention basin by not having a straight shot concrete low flow channel, trying to have a more meandering longer flow path through the basin and just talking about some of this improved performance and reduced unit costs.

There's lots of literature out there

on this naturalized approach, enhancing habitat, having better water quality improvements. There's also this reduced need for maintenance and mowing. We typically recommend, at a maximum in these naturalized areas, mowing once a month to a height no less than six to eight inches, but that can go all the way to once per year that we see just to keep out the woody vegetation, so it doesn't have to be a high maintenance regime on these naturalized basins. Using naturalized planting adapted for floodplain and wetland condition in these systems. Again, to eliminate the need for mowing.

There's also potential -- also the reduced need for applying fertilizers and pesticides as you would in more of a manicured landscape, which is common sense, not applying those chemicals to an area that is receiving stormwater and discharge into streams. The second case study I wanted to talk about is the Ramanessin Brook Stormwater Retrofits Case Study.

This is located in Holmdel Township, New Jersey. It was part of a 319H grant through Monmouth County. I did want to mention some of the project partners. There was quite a few here

for this effort which included Monmouth County, Monmouth County Park System, Holmdel Township Environmental Commission and the Board of Education, NJ DEP as a 319H grant went through the DEP.

We were also involved with the Rutgers Cooperative Extension Water Resources Program and received a grant for New Jersey American Water for some of these education outreach programs that were part of the project. So the project focused on stormwater retrofits based on a pollutant loading study and watershed based restoration plan which is the typical process for 319H grants, and the goal is included improving water quality, reducing peak flow rates and volumes, stabilizing stream banks, and providing education and outreach in watershed in the community.

So the first site I wanted to talk about is the Village Elementary School. This is kind of an aerial and some existing shots, pictures of the court yard, so this project centered around a courtyard at the school which is fully enclosed. It was really an eye sore and was very rarely used by the school. They were

very excited about retrofitting that area.

Because of that large impervious area and all of the root areas surrounding it, all of that runoff volume and raise went straight to a sewer system and to the nearby stream, and our retrofits included rain gardens. There's four pocket rain gardening within the courtyard that used a bioretention system to treat, intercept and control the amount of runoff leaving the court yard. The rain gardens were planned with native plantings. We actually oriented it such that there was different types of plantings for each season and in each rain garden.

So there's a summer rain garden, in the fall, spring rain garden, so they bloom throughout the year, and as I mentioned, the Rutgers Water Resources Program provided an educational program for students at the Holmdel High Schools, and this education component, as you can see in the picture, involved plantings that the students participated in, and there is actually more students that participated than the number of plantings we had.

So we had to plant more than once

throughout the day, but it was definitely more than well received by the schools. I wanted to move to a different site here as part of the project which is Holmdel Park, and there was a number of problems that we wanted to try to address here which is a heavily eroded ditch which you can see in the top left photograph that drains to a pond in Holmdel Park.

It was producing a lot of sediments and pollutants down to the pond. There is also a lot of directly connected, impervious at the park, that we wanted to try to disconnect and treat in stormwater BMPs and these are some photographs. In the top right is a picture of what the solution was for that eroding ditch in which a number of drop structures were used to bring the water down to dissipate energy down to the tributary that flows to Holmdel Park.

I also have some pictures here of one of the bioretention basins that was installed. That was shortly after receding so it's grown up since then and there was also two rain gardens that were constructed along the parking lot to intercept and manage that stormwater runoff. At the high school, kind of a

similar approach, but a larger scale.

This was a site that had directly connected impervious from a large roof area and a huge parking lot all going to one pipe into a tributary Ramanessin Brook and there was so much erosion scour that was happening, that the pipe was now 10 feet or more above the stream where it's discharging and it's scouring out the whole stream bank. It was actually so much scouring that parts of the pipe had fallen off into the creek as it eroded back further and further.

This is some pictures of the existing condition, and you can see the designs running which incorporated a bioretention system to intercept, treat and properly discharge that to a reconfigured outfall area, and this is a photograph of the post construction bioretention basin, so this new bioretention basin is designed to collect, manage and treat the stormwater runoff.

You can see a sign that was put together about slowing the flow, which is really what this is all about, taking the water out of that pipe system, existing older stormwater infrastructure that we have, and treating it and

slowing that water down. The last site for the Ramanessin project was at the Chase Tract which is a conservation area in Holmdel, and there was an existing stream.

This is kind of typical for the area that was experiencing a lot of erosion along the stream banks. This was a particular S turn which went under an existing bridge, and there is so much erosion and scour that that bridge was actually in jeopardy of being washed out as the erosion was cutting kind of its own path around the bridge. And so our goals here were to reduce the erosion, stabilize the stream banks.

We utilize in stream structures, which you can see in the drawing in the bottom right, such as a J hook, rocky footer logs to restore the stream and meander through the existing bridge. We also restored the stream banks using bioengineering techniques and native plantings. And this project was a really big success. It really established very well. The stream banks really grew in very well and stabilized the whole area, and these are some photographs kind of through construction and then once vegetation became established.

I will mention here you can see it's a lot of grass on the pictures here. That was shortly after. I've been back since and it's really taken off and it's fully vegetative along the stream stretch there. The Ramanessin Brook Restoration Project won several awards including two awards from the New Jersey AWRA and one award from the New Jersey American Society of Landscape Architects. So I just wanted to end with this. That was just a two case studies which is just a sample of the opportunities potentially available to address storm water issues in New Jersey, so I wanted to show some additional pictures of different projects that we've worked on, that I worked on throughout the state and out of state, so at that point I'll --

MR. COSGROVE: Thank you, Brian.

(APPLAUSE)

MR. COSGROVE: We have a few minutes of questions for Brian, if you have any.

MS. SANCHEZ: My question is for Brian. I was just wondering if you could speak a little bit to the number of permits. Is there any differential in the number of permits, the type of permits, the cost and the timing for

getting permits for these kinds of projects over more traditional engineer projects?

MR. FRIEDLICH: Yeah. The process is really the same as a traditional project. I will say for the 319H projects, there was cooperation between the Watershed Management Division and land use regulation, so that kind of helped move the process along, keep the lines of communication open which is always important when you're dealing with permits. A lot of times, these projects don't necessarily need a lot of permitting.

I found that, so for example, for the Ramanessin, there was a fair amount of permitting there, but the projects also had a larger price tag, so it wasn't like a crazy amount in proportion to the overall construction work.

MS. SANCHEZ: And the local municipalities usually handle these projects easily now? They look forward to it as far as their reviews?

MR. FRIEDLICH: So the local projects, so if it's a public project, so for example, the Ramanessin projects was publically

funded, so it went through a courtesy review, but it didn't have the same review on like a private project would have, so as a courtesy review, I provided the drawings, I gave a courtesy presentation to the board in Holmdel and that was kind of the process that it went through.

MS. SANCHEZ: Wasn't there a private project, too?

MR. FRIEDLICH: That was also a public project for Montgomery Township, so it all got handled internally, but they're still responsible for making sure that the projects meet the stormwater regulations.

MS. BERG: This is more generally related to the stormwater permit and the municipal land as it relates to the permit. Are you anticipating any sort of, let's call it a mitigation plan for flooding where somebody says I want to avoid peak flood in the watershed by not doing any infiltration, you know, get my flow out in front of the peak flows? Are you anticipating that? I'm saying has the permit office considered that.

MR. MURPHY: If the standards cannot be met, then there has to be a mitigation

applicable to the site. But what we found is that there are not -- municipalities have developed mitigation plans, so if they're going to waive something, that has to then go towards the mitigation plan, so one thing we're doing is we're updating our mitigation plan guidance.

As part of doing our stormwater audits, we are looking into, if there are any waivers to any of the criteria, are they then doing mitigation and is there, you know, have they adopted a mitigation plan as part of their stormwater management plan, so we're doing further reviews to insure that, again, any kind of waivers are falling back to an approved mitigation plan or project, so we're looking closely at those items.

MR. KENNEDY: I just want to say one of our goals is to have the towns aware of their responsibilities early because by the time we get involved at the end, the projects are pretty well backed through the site plan process locally to the point of sometimes they're moving dirt from site prep, and it's almost impossible to overcome without some serious challenges to the project sponsor to overcome those challenges.

So what we're trying to do is to try to have municipalities understand their roles more clearly to minimize the opportunities where someone agreed by a municipal action under the stormwater permit comes to us as a mediator or a decision maker on a specific project in the downtown, especially in the context of redevelopment. Probably spend more time than I'd like, all our staff is spending more time than we'd like, to mediating these issues.

And oftentimes, when it gets to our attention, it's impossible to mediate these and resolve these issues without some challenges to the project sponsors from their schedule and capital investment prospective, so that's unproductive time for all of us. The more the towns can understand their roles and obligations, the easier my job will be. Selfishly, I want to have an easier job.

MR. COSGROVE: What I'd like to do is move to the public testimony portion of our day. We do not have many people who have signed up to testify, so my thought was to just plow forward and not take a break at this point, if that's okay with you. If we had a bunch of

people to give testimony, I would suggest taking a break right now. Are we okay with moving forward and getting through?

MR. DELION: One quick question. Has DEP given any consideration to when we're looking into doing various stormwater management projects, every once and a while we get into situations where a drainage area extends -- Darren Delion. Every once in a while we have drainage areas expand beyond the project limits, and that drainage area could have four, five multiple BMPs within the drainage area. However, we've never been allowed to take those BMPs into consideration when calculating flows to our site, and we're wondering if that will have any consideration as we move forward with stormwater management?

MR. MURPHY: I'm not sure I can answer your question. I'd have to defer to some of my engineers for that particular, for that response to your question appropriately and also it may involve our land use folks that are involved with doing a lot of reviews when land use permits get filed, so I can follow up on that for you and get back to you on it.

MR. COSGROVE: I know Bill Minervini has some comments and testimony to share with us. Is there anyone else who would like to testify? Bill, the floor is yours. If we can find a mike for you. Come up to the podium, please. The slides that are up on the screen here is a summary of the questions that we posed in the announcement for this meeting, so if you have thoughts on those questions, we're very interested in hearing what they are.

MR. MINERVINI: Thank you. Good afternoon. I thank the council and DEP for the opportunity to comment on these preliminary draft permits. My name is Bill Minervini, and this past December I ended a DEP water resource career begun in 1975. As part of that career, I was one of several coauthors of the first Tier A and Tier B permits issued in 2004. I have a whole lot to do with writing the NJPDES water permit rules that still govern these permits.

In recent years, my role in the DEP stormwater management program decreased. One reason I left DEP was so I could speak more freely about that program including the Tier A, Tier B permits. Last night, I e-mailed to the

council and DEP, extensive comments on Tier A permit renewal. My oral presentation today highlights some major topics of those comments. Let me also say though that I respect the intent and effort of the DEP officials and staff who have worked on this renewal.

My comments address basic issues that should be of interest to the council and other concerned parties, even if the council did not specifically invite comments on those issues. My comments were not prepared at the request of any stakeholder. My first basic issue is in what part of the municipality can the Tier A permit require the municipality to provide stormwater management. DEP now says it is the entire municipality.

My position is that with narrow exceptions, legally the Tier A permit can require the municipality to provide stormwater management only for areas that contribute to the municipally operated separate storm sewer and maintenance yard discharges authorized by the permit. In general, the Tier A permit cannot require the municipality to regulate private property whose stormwater never touches a municipality's

facility before reaching waters of the state and cannot require the municipality to provide stormwater management in areas served solely by a combined sewer system that had its own separate NJPDES permit.

The second basic issue is does DEP still have adequate legal authority to issue the Tier A permit. In 2004, DEP argued that the NJPDES Municipal Stormwater Rules did not impose on unfunded mandates prohibited by the New Jersey Constitution. Unfortunately, the council on local mandates rejected a very similar argument in 2011 when the council invalidated refuse container and Dumpster ordinance requirements that DEP added to the Tier A permit in 2009.

This legal issue must be analyzed by the New Jersey Attorney General's office and discussed in the facts sheet for the draft Tier A permit. Another basic issue is letting the effected municipalities and the public know how the 2010 census specifically changed municipal tier assignments and providing a reasonable implementation schedule for the municipalities reassigned to Tier A.

The statistics and existence of Tier

A and Tier B municipalities the DEP e-mailed this year with the renewal notice, and the list and map on the e-mailed website, and the map that was up here today, are all based on the 2000 census even though DEP knew, at least as early as March 2013, that the 2010 census resigned, not only municipalities from Tier B to Tier A and three municipalities from Tier A to Tier B. Moreover, the implementation schedule and the preliminary draft Tier A permit provides no relief for the nine new Tier A municipalities who have to comply with what for them are very new requirements on the first day they require the Tier A permit.

I also have concerns about how DEP and this permit addressed stormwater discharges from certain municipal maintenance yards and industrial facilities that are outside the scope of the current Tier A permit. In addition, I believe that the revised local public education and outreach requirements do not satisfy the small MS4 rule requirements in providing information to the public and businesses. I also have several concerns about the revised requirements for post construction stormwater management.

These include concerns about inconsistent, incorrect and missing acreage thresholds, omission in some places of the residential site improvement standards and the standards of storm drain inlets, an improper directive to, quote, "enforce," unquote the Municipal Stormwater Management Plan, inadequate provision concerning on how you review and neglect the Pinelands Commission role and legal issues concerning website posting and municipal board and governing body training.

Finally, I think there are serious problems with the revised provisions concerning localized stream scouring. Thank you for allowing me to make these comments and I look forward to reading the council's recommendations. I e-mailed the comments last night. This is one written copy for the permit program and the other for the Clean Water Council.

MR. COSGROVE: Would anyone else like to testify? Okay. Seeing none, we'll close the hearing. Thank you all for coming today. We appreciate your input, and just remember that if you have any thoughts after you leave today, DEP is very interested in hearing them through at

least April 30th.

(Hearing concluded at 2:46 p.m.)

C E R T I F I C A T E

I, LAUREN ETIER, a Certified Court Reporter, License No. XI 02211, and Notary Public of the State of New Jersey, that the foregoing is a true and accurate transcript of the testimony as taken stenographically by and before me at the time, place and on the date hereinbefore set forth.

I DO FURTHER CERTIFY that I am neither a relative nor employee nor attorney nor council of any of the parties to this action, and that I am neither a relative nor employee of such attorney or council, and that I am not financially interested in the action.

Lauren M. Etier
_____

Notary Public of the State of New Jersey
My Commission Expires June 14, 2016
Dated: April 28, 2016

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