DEPARTMENT OF THE ENVIRONMENT MEETING

PHASE II WIP INFORMATIONAL MEETINGS

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The above meeting was held on
Thursday, March 1st, 2012 at Baltimore County
Agricultural Center, 1114 Shawan Road,
Cockeysville, Maryland 21030, commencing at
6:30 p.m., and was reported by Dawn Hyde, a
notary public.

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ATTENDEES:

MR. RICHARD ESKIN
Director of Science Services Administration
Maryland Department of the Environment

MR. JOHN RHODERICK
Administrator
Maryland Department of Agriculture
MR. ESKIN: Okay. My name is Richard Eskin, director of science services at the Maryland Department of the Environment and I am MDE's lead on the Bay TMDL and Watershed Implementation Plan.

This evening I am going to give you a quick rundown of sort of where we are and what Phase II is, what is in the document. We're currently in the public review period for the Phase II WIP and so we are here to answer questions that could help you better understand the WIP document itself, help you prepare your comments for submission if you're planning to do that, and then just help you to understand the general process.

When I am done, John Rhoderick will sort of take the agricultural side, what they have done, the process they have gone through and where everything is now. And then we will
open it up to a question and answer period.

So why don't I jump right on in. I would like to begin by acknowledging the Town Creek Foundation. They have given funding to the Hughes Agro-Ecology Center, Hughes Center for Agro-Ecology who organized this, did all the logistics. Without their help, we could not have done the job that we did in getting the word out to folks. I know some people will still be dissatisfied but we have really made a major effort and we really appreciate the help of both the Town Creek Foundation and the Agro-Ecology Center.

I'm going to go over some basics because people may be new to this process. I want to make sure everybody at least has the bare bones about it and then I'll get into a little bit more detail, but I'll go through fairly quickly. You can stop to ask questions or ask questions after the presentation if you need to.
So let's begin with the TMDL. You know, well, everybody knows, I think -- well, people in Maryland at least know that every summer we have a large dead zone in the bay and that's, in our jargon, that means the bay is impaired, it does not meet its water quality standards.

When that happens, we do a TMDL, Total Maximum Daily Load. That is an estimate of the maximum amount of pollutant that can enter a water body and still let that water body meet water quality standards.

The concept is fairly simple. Total load equals the waste load allocation which is the loads of pollution coming from all the regulated sources. So if it needs a permit, it's a regulated source, it's part of the waste load allocation.

Load allocation is basically everything else. That's the farms, it's the lawns, it's the atmosphere deposition that all
1. eventually gets down to the bay.
2. There is a margin of safety but
3. that's what we call implicit. It's built in.
4. In any monitoring exercise, you need to make a
5. certain number of assumptions and we just made
6. conservative assumptions rather than setting
7. apart an exclusive margin of safety.
8. We have been working on the bay
9. restoration since 1983 when the first
10. watershed water bay agreement was signed. We
11. have made a lot of progress, come a long way.
12. We've done a lot of good things. The progress
13. is slow, basically all the good things we do
14. are balanced by continuing growth and it's
15. been quite a while.
16. In 2000, there was a baywide
17. agreement that if the bay wasn't restored in
18. ten years, we would move to a TMDL. We didn't
19. restore the bay, so now we're moving into a
20. more regulatory framework.
21. The TMDL itself is required by the
1 Clean Water Act, and the TMDL is not directly
2 enforceable itself, but permits that are
3 written must be consistent with the TMDL. So
4 the TMDL essentially allocates loads to
5 sources and then the permits for those sources
6 need to reflect that. So we moved into a more
7 regulatory framework just with the TMDL
8 itself.
9
10 As part of the TMDL, EPA
11 requirements is something called reasonable
12 assurance, particularly for the load
13 allocation. For the waste load allocation
14 where you have permits that is enforceable,
15 you write permits, you have enforcement,
16 inspections and so forth, the load allocation
17 it's not quite such a clear guarantee that
18 what you need to do will get done.
19
20 So as part of that, EPA says, "Well,
21 if you have a plan and that plan is public and
22 it's transparent and we can hold you to that
23 plan, then that provides better reasonable
assurance that the TMDL will actually be implemented." So it calls to do an implementation plan.

We've done that, we've put it out on our Web site. It's available. And again, I'm going to say this a few times, we are now in the public review period and we want your comments by March 9th.

Of course, you have a plan, you want to know if you're sticking to the plan, so tracking and evaluating progress is really important. For those of you from local governments, developing, tracking and recording systems is very important. We want to give you credit for everything you have done, for every dollar you have spent, but we can't give you that credit if we don't know about it.

So you need to develop those systems to track what you are doing so it can be reported to us so it gets reflected in our
progress reports to EPA.

The other thing that's new in this accountability framework are these two-year milestones. What we used to do before, as I sort of alluded to, is in 2000 you would get this agreement: We're going to fix the bay in ten years, and you don't really check on your progress or do anything about it for the first eight. And then 2008, you realize, uh-oh, we're not going to make it.

Well, it was determined that we're not going to do that anymore. So basically every two years we'll check on our progress. And what happens if we're not making progress, well, EPA has assured us that there will be federal consequences.

What might those be? Well, they can open up the permits. That's where they have got their major control. So let's say that we have a minor wastewater treatment plant and it's discharging at 18 milligrams per liter
secondary treatment. They can say you will retrofit that plant and make it discharge at only three milligrams per liter and we really don't care where you get the money, you are required to do this.

Which is why the Watershed Implementation Plan is so important because rather than having EPA tell us what to do, the Watershed Implementation Plan allows us to tell EPA how we're going to achieve our allocations.

EPA could expand coverage. This might be requiring storm water permits. Not every county has a storm water permit. Although Baltimore County certainly does but smaller counties don't. EPA could say, Maryland, you're not making enough progress, we are going to require storm water permits across all of the counties.

They can just do more enforcement which is sort of, you know, a lesser level of
1 consequence. And, of course, they can just
2 give enhanced oversight which means they're
3 constantly asking us to do better and more and
4 nitpicking with everything.

5 So what have we done as far as this
6 Phase II process. I should just take a step
7 back for those who are new to this. We did
8 Phase I in 2010 and we submitted the Phase I
9 Water Implementation Plan to EPA in December
10 of 2010. That was a statewide program.

11 The big difference here is that we
12 have gone into a lot more detail, more
13 geographic specificity and far more input from
14 local teams from counties, municipalities,
15 than we had in Phase I.

16 To get that in, we set up local
17 teams. Each one had a state liaison, and
18 local government officials put the teams
19 together, mainly involved public citizens --
20 private citizens. And they talked about what
21 they wanted to do and got the plan to us. We
developed a tool to help them put that plan together called MAST, or Maryland Assessment and Scenario Tool.

Think of MAST as sort of a spreadsheet for doing restoration strategy. It essentially lists all of the best management practices, lists all the land uses. And then you put in what percentage of that land use you want to implement with a given BMP and then it adds it all up for you and tells you how much loads you have used, what your loads are.

So you can do what-ifs. What if we used more of this practice and less of that. What if we used more of that and less of this, and see how it adds up.

MAST is a helpful tool. What MAST actually does is simulate EPA's watershed model, it doesn't simulate the watershed itself. Rather, we're trying to make it like a watershed model because that's the final
decision maker. What the watershed model says
is what you get in terms of credit.

We used to have to use spreadsheets
and we'd submit something for the watershed
model run and it would come back and say, oh,
you're way off and then -- it takes a week
each time to do this. So you can imagine you
didn't have many opportunities to really tweak
your strategies. My department alone ran more
than 200 MAST scenarios in order to help
develop the strategies.

So we have done that. Actually, we
also gave local government folks hands-on
training at MDE. We had a computer training
group. They actually came in, three or four
sessions. The person who wrote the program
did the training to help them understand what
we needed to be done.

We had to develop 2017, 2025
strategies. That's done. That was a
submission that we gave to EPA about a month
ago, and now we're in the public review and revision period. March -- it runs through March 9th. And basically then between March 9th and March 30th, we're going to review your comments, take them into account, make what changes we need to make in the final version of the implementation plan and submit it to EPA on March 30th.

What is in the plan? Section one has the target loads by state, statewide, and by sector, and there's an appendix attached that does it by basin.

We have five major basins and that's going to be our reporting level to EPA. The five basins are the Potomac, the Patuxent, the Susquehanna -- we just have a little bit of the Susquehanna basin in Maryland -- on the Western Shore and the Eastern Shore.

Now, although we will be reporting to EPA at the basin level, we will continue working with the counties at the county level.
because that is where a lot of the work gets done and that is where we'll be going. Expect and hope for reporting on what has been at the county scale and we will roll it up and report to EPA at the basin scale.

Strategies, milestones too. You have statewide milestones as well as milestones from the individual county teams.

We also have to account for growth in loads. This is something that we haven't addressed before. What that means is in the past when we were doing a lot of good things, upgrading our wastewater treatment plants, making our permits more stringent, starting to upgrade septic systems and so forth, we had a lot of growth at the same time.

That meant more hookups to those wastewater treatment plants, more septic systems in the ground, more paved streets to increase runoff, so we sort of neutralized the progress that we made.
1 EPA said no, we can't do that anymore. From now on, you know, whatever
2 loads are not already captured in the TMDL,
3 they are new loads and they need to be offset.
4 So if you're going to change the
5 land use, say, by developing an area, you're going to increase the load by 50 pounds, you
6 have to find 50 pounds somewhere else that you're going to reduce to offset the new load.
7 And there was some discussion of cost and funding.
8 In Section II, that's all about the
9 process we have with the local teams, with the local governments. The meetings we have, how we work with them on MAST and so forth.
10 Section III is actually what we got back from the local teams. So if you're from
11 Cecil or Harford or Baltimore, you could see what your team sent in to MDE. And then we talk a little about where we're going in the future.
There's lots of supporting information in the appendices. I am not going to go through them all but there's a lot of information that is available online for you to look at.

By the way, if you haven't seen it yet -- how many have looked at Phase II WIP, actually? Wow, that is -- I am impressed. I'm impressed. You know it's available on our Web site. You go to our home page, there's a Water Implementation Plan banner, you click on that and you can get to it from there.

We have set time frames to getting this all done. 2017 to get to 60 percent of the implementation, 2025 to do it all. When we had started out, we wanted to get to 70 percent of the implementation in 2017. People said no, that is impossible. It's not fair, and we listened. And so we backed off. So now Maryland has the same basic pace as all of the other jurisdictions in the bay watershed.
1. We are doing very well in terms of our overall reductions because of the Bay Restoration Fund. That has been in place for quite a number of years now. We have all of our processes developed. And upgrading a wastewater treatment plant is a big project and it takes time. You do a feasibility study, you do an engineering study, you do a design study and you get contracts and it takes a long time.

2. Because we have been working on this for quite a while, we are sort of ahead of the game and so they're carrying us on some of the things that may go a little slower. But nevertheless, we cannot make it on wastewater treatment plants alone.

3. Agriculture is really important and they're doing a great job to keep up with us. And then we need to get storm water and septic systems going. But we're looking for and expect incremental progress across all of the
sectors.

Scale. I touched on this already.

We have the five basins. That is the level at which we were reporting to EPA. We started working and we're still going to continue to work in many respects at the county scale because that's really where the responsibility resides.

I mean, let's face it, there is no watershed that has a budget. Watersheds don't have budgets. They don't have planners. It's counties, the governmental units that have budgets and the ability to implement stuff. So that is really where we need to work. And we are going to continue to work at that scale with individual counties and municipal counties as appropriate.

This accounting for growth issue is going be a difficult one. We know that.

There was a task force, a legislative task force, that met before session started.
Colloquially, it was known as the septic task force. Officially it was the sustainability and wastewater disposal task force. They came up with a fairly brief but very excellent report of recommendations regarding septic systems and the Bay Restoration Fund and so forth.

So we put aside our accounting-for-growth policy for a little bit to see what kind of response the task force report got from the General Assembly to see what they do. Because we don't want to try and step on their toes and, you know, get in each other's way. So we will let them do their work, we will see where we stand and then we'll pick up the accounting-for-growth policy after the session. I think that is pretty much it.

Filling the gap. Not all counties submitted to us the complete strategy. They didn't give us a strategy that fully met their
allocation to cover all the reductions that were needed. So in those cases, MDE had to give a complete strategy to EPA. So we needed to fill in the gap and that's what we did.

So we started, whatever we got from the local teams we kept that. We used everything they gave us, but if we needed more, then we added more strategies in this order: Anything requiring a permit because obviously that's going to have to be done regardless; any broad programmatic controls like urban nutrient management. They're cost effective, that we think anybody would want to do.

And then finally, we added other best management practices using the same approach we used to develop the allocation.

There's still an opportunity to come back. If anybody, any county, any municipality didn't submit complete strategy,
you can come back and do it your way. I mean, basically what you're faced with is two options. You can give us strategy to do it your way or you can do it our way and we fill in the gaps. So there is still opportunities to do that.

So the bottom line is these are pound reductions. We have got 11 and a half million pound reduction from 2010. That's 22 percent reduction load of the 2010 load.

Phosphorus, just under 500,000 pounds, and 26 million pounds of sediment, and you can see the percentage there as well.

MR. KLINGELHOFETZ: Excuse me, where do these numbers come from? Is that from nutrient management or...?

MR. ESKIN: The percent we can -- we obviously have to start from where are we in 2010 and that is a combination of model data and monitoring data. So we do a progress run from the wastewater treatment plants, they
measure it at the end of the pipe. So we know exactly what they have done. So that is the point source numbers for 2010.

For nonpoint source, things that don't come out of the pipe like the agricultural things, we used the bay model, and the implementation, EMPs that were reported to us, that is what goes into the model. And then the model combines the point and nonpoint source to say here's where we are in 2010.

The other numbers are just basically a subtraction from what the bay model -- where the bay model is saying we need to get. 2010 is telling us where we are now, our allocations were given to us by EPA. The difference is the pound reduction that we need to accomplish.

Future steps. Okay. As I said, there is still an opportunity to refine your plans, to modify it, to fill out gaps that you
weren't able to do earlier. After June of 2012, subsequent changes will be incorporated through an adaptive management process. And I can't tell you right now exactly how that will work but I do know that if you said you could guarantee me that these were the things that were put in the ground, and even though we said you've got to do that, you did this and we got the same amount of nutrient reduction, we're not going to turn it away.

Tracking and reporting. We're hoping to work with local jurisdictions basically on a quarterly basis. We don't want to come to 2013 and then somebody has to say, oh, you didn't make sufficient progress, we're going to do this to you. We don't want that to happen. We want to keep the lines of communication open so everybody knows what to expect.

And that's why we work with jurisdictions, the model is going to be
fixed -- well, I shouldn't say fixed, upgraded, refined, improved in 2017 and we would like to get better information, more accurate information on septic systems, better understanding of land use and so forth so that everybody has even more confidence in the model.

The remaining schedule. On January 6th we submitted the state milestones to EPA. We brought them out January 25th to March 30th in the public comment period. March 30th to June 30th, basically that is when you can make the final refinements, and July 2nd it's all over and I can go on vacation. There you go.

Now John Rhoderick will come up and tell you about the other half of the process.

MR. RHODERICK: Good evening. I'm John Rhoderick. I am with the Maryland Department of Agriculture, and similar to Rich, I was put in a position of facilitating,
developing the agricultural portion of the
strategy.

So why is that being pulled out
separately? I mean, if you think about it
conceptually, this is a chair. There's a
couple of components. One being wastewater
load, one being the septic load, the other
being the urban load from storm water, and
then the ag load.

So why do we pull ag a little
differently? Well, it has to do with having
been working with ag and implementing
practices.

For the most part, the other three
components, when we talk about wastewater,
urban and septic, that's something that
happens, as you say, somewhat at the county
level and the state level. When you talk
about agriculture, you're talking about
programs and funding and implementation that
occurs in a little different setting.
So we looked at that component and said because there is people that work specifically with the ag community, those are the people we need to get in the room because those are the people that are boots on the ground and they know and understand what is going on out there.

So what we did was in parallel with the urban component, we set up ag work groups in each county and we had a series of meetings. And those work groups were not just ag people. There were county planners there, they had public works people, et cetera.

But we really focused on bringing in people, personally inviting them there that were people that worked with the farm community and with landowners. Because those are the people that could tell us going forward what there was available out there to still do, as well as what they already worked on. So they knew from the farm community what
the options were going forward that we thought we could get done. So with that in mind...

    First I want to start with just kind of a background slide, and I do this purposefully because there is a lot of information out there that gets ramped up in newspapers and I want to again remind everybody, we're in Maryland, and in Maryland agriculture is not the dominant load.

    This is an urban state. Maryland is a more urban state than agricultural, so when we look at it from that perspective, about 35 percent of the load going into the bay from Maryland is agriculture.

    However, having said that, as you can see, depending on what watershed we're in, agriculture can be a very dominant player, especially on the Eastern Shore, Choptank and other regions.

    But here specifically in Baltimore County, you look at the Patapsco/Back River,
ag's only three percent of the load. You look at some of the others like Patuxent, 18 percent of the load. So again, it's very important regionally, when these plans are developed, to understand where your loads are coming from because that has a huge bearing on how we develop these plans.

And that's why the local perspective is so important. Because, again, if I am on the Eastern Shore, we're taking on the majority of the plan versus, let's say, in Patapsco/Back River we're not the major player. We're not going to make a big difference in the plan.

So what we do is we took and developed ag work groups in each counties and we used the soil conservation districts as the lead. And basically, as I say, these, you know, we had a very at that time scripted set of deliverables. At that time, we were told that our goal was by 2020, our governor
1 said -- even though EPA asks for 2025, our
governor said I want this done by 2020. I
want everything implemented and I want to see
what it's going to take.

And that was a valuable exercise, as
you'll see a little later. But 2020 was our
target to get all the stuff implemented in the
ground to meet the goals.

Since that time, as I said, we have
had -- we extended what we did from those work
groups out to the 2025 plan. But we also
developed within that two-year milestones, as
Rich alluded to, because that is what we have
to have. So we had those as well.

So here's what we have. We have
these ag work groups. We actually had two
sets of meetings in each county so -- was it
48 meetings? We had two sets of goals. I'll
talk about that in a second because we got
started early before we had final numbers.

So we started with one set of
numbers, and then when the new model came out, we had at least a framework of how we were going to do it and we used the new model numbers to come up with our final plan. And we had two sets of tools we used at that time and we worked off of two different strategies. The first time we did this, again because we didn't have the final numbers, we sat down and said, okay, the caveat here is by 2020, given the existing resources we have and the existing people in place that work with the farms and landowners and the existing programs as we know them, whether it be the conservation reserve program, EQUIP, whatever programs we work with farmers, by 2020 how much more can we get done, given existing resources.

The second time we came -- because now we had new numbers and a new model and clearly it said we had to do more, we came up with what we call the aggressive strategy, a
strategy that would not get accomplished with existing resources and programs but it would meet the goal. So that is what we were able to do is look at it from two perspectives, and that was very important.

Okay. The other thing is, as Rich mentioned, is we're looking at, or on the urban side, for counties to develop some kind of tracking system to really get a handle on what they have out there. From the ag perspective, we were very fortunate. We have conservation tracker, which has been in place for a few years, and it's allowed us to get a much better handle on what is already on the ground and that helps us going forward to know how much we have done.

And sitting with the right people in the room, they can say, well, given that, I see no additional opportunities for this kind of management practice, or I see this other management practice has got a lot of
Okay. So this is from, some of you that have been in the room and played with this, this is from the first meeting, and as Rich said, we didn't have much to go on but we went with the simple spreadsheet. Not the best idea but it's what we had at the time. So what we did is we took on this slide -- I know it's a little hard to read but you can probably see it in your information. These are the only BMPs that the model sees for agriculture.

We do a lot more for farmers but in the model world, which is what we're dealing with for now, there is only certain BMPs the model reads. So we started with these because that is all we're going to get credit for in the model.

So we went through and very simply we had to model some information about what the load reductions for nitrogen and
phosphorus were for each. We could put in information county by county about how much they had done currently, and then what we did is very simply go out in the next column and say okay, if for barnyard runoff control, which is actually recovery, if you've already done 50 barns in this county, how many additional opportunities are out there? How many additional farms or barns can we go out and put roof guttering on?

So it's a simple exercise of doing that and we could calculate load reductions based on that and we had our goal and so basically we saw if we could meet it. And that's how we did the first set of 24 meetings, county by county. And again, that was based on existing resources and existing programs.

So here is where we ended up. The old bay model prior to August, the old bay model said for agriculture in Maryland, the
raw load, if you were doing nothing, if we weren't preventing anything from going into the bay, the raw load for agriculture would be 22 million pounds for Maryland going into the bay.

However, we have all these conservation practices and by tracking, conservation tracker, and they have been submitted. So rather than 22 million pounds going into the bay, the current load going into the bay calculated in the model is 17.7.

So we're mitigating on average an annual rate of about 9 million pounds of potential pollutants that would be going into the bay through the conservation practices we've installed to date.

So this is the load we had and it was, that's great, that's 17 million pounds. But we need a plan to get you down to 13.7. According to the old model, if we could get the agricultural load down to that, we've met
our obligation for agriculture. So we did that.

As you can see, this is where we ended up. We didn't quite get there. So saying based on the existing resources we have, which would be the number of people out there working with the farm community, as well as the programs we have, and given the fact that we have to do this by 2020, this is how far we could get.

And this was a valuable piece of information because it allowed us to step back and look at this and say, well, you know, it's going to take more, you know, we can get some significant reductions but it's not sufficient to meet the model.

So then in August, as I mentioned, we got the new bay model numbers and they were more aggressive. You'll see those in a minute. And they also changed significantly because the new model -- one model to the next
changes significantly.

At that time, as Rich mentioned, the Department of Environment gave us a new tool called MAST, and this was the agricultural piece of it. We liked this a lot because unlike that spreadsheet you saw, the spreadsheet, as Rich said, gives you false information because it's not as simple on a model as putting additional BMPs. It doesn't work like that in the model.

In a generic term, if I had an acre of land out there and I said I am going to do nutrient management on it, that's one BMP. So in the model it says okay. Then I say, I am going to do cover crops. The model doesn't give me -- it doesn't add one load reduction to the other. You get less and less. It's a decreasing amount, so that is why a spreadsheet doesn't work.

MS. HORSEY: It's a train.

MR. RHODERICK: A train. Thank you.
It's called a treatment train and I know it's getting into the weeds but that is why we like this because for the first time it's giving us information about how the model works.

So we can sit here and plug BMPs in on, as Rich says, very specific land uses and we could see, as we continued to put more and more of the same -- BMPs on the same land, we didn't get, you know, reductions didn't go linear on the -- they kind of tapered off.

And that was good because that helped us see exactly how the model works.

So we used this. We were the first ones out of the gate using it. Not all the things worked on it, so while this agriculture piece worked, the animals and the no-transport didn't, but we still went about our business of looking at BMPs that were part of that, we just couldn't get a lead from this on where we were.

So here is where we ended up. Now,
the interesting thing is I know the other slide you didn't really take notes, so look at the numbers. They're completely different. This is the new model.

So instead of saying under the old model where they said the raw load for agriculture was 22 million pounds, this new model says 28 million pounds. Well, that's a big difference. Similarly, our progress. The old model says you reduced that load down to 17.7 million pounds. New model says, whoops, you're not -- you haven't gotten that far. So this is why we ended up with new goals that were much more aggressive.

Luckily, as you can see, this was the goal we had to get to under the new model and this is where we ended up. We ended up just under. So we have a strategy in place in the WIP that says for agriculture statewide we can meet that.

And this is what it looks like for
phosphorus. This was interesting for us as well because, as you can see, nitrogen was much more difficult to meet. Phosphorus, we actual met it and exceeded it.

Now, having said that, we since have learned there is -- and you'll hear more about it in the points, but there is an issue with the model for phosphorus so we're not jumping up and down about this. This is great, but we think there is a problem in the model and we wouldn't want to suggest that we're way under at this point.

So this is what it looks like, as Rich said, how we will be presenting it to EPA, we did present to EPA. They want to see it by basin. This is how it looks. So by basin, you know, here is where we were in 2009 -- I apologize, Rich is using 2010, an update. But in 2009, here is where we were, and the red is where we tried to get to in our plans and the green is where we actually ended
As you can see, it varies from basin to basin. Eastern Shore is much more difficult to get there. Even with the aggressive strategy, we're just a little over. Potomac River, we're well under and you can see these are the two we want to focus on because this is where the major load is, according to the model. It's not the Western Shore, Susquehanna and Patuxent, but major loads are here.

But overall, that equals the state plan that meets the goal. And then for phosphorus, the interesting part is look at the Eastern Shore. We had a tough time making it for nitrogen but we got well under for phosphorus.

So again, this is what the model -- at least the information from the model and that's why I think we're a little leery because this phosphorus number, because as
most of you who read the paper, we believe there's a lot more phosphorus on the shore. So to suggest suddenly that, you know, it's real easy to meet it doesn't seem to make logical sense.

This is the statewide, this is broken down, as you said, for 2013 where our goals are and will be by then, 2017 and 2025. Some of the, you know, and I apologize, we don't have enough information up, it's already too busy. But if you look at stuff like forest buffers, I mean, people will look at this number and say this isn't -- from a statewide perspective, this isn't a lot of new acres.

You have to remember what is missing from here is where we've come from. We've done over 26,000 acres of forest buffers to date. So we have done some of the easy acres. It's much tougher to get these additional BMPs for stuff like forest buffers because the
opportunities are not there. So you have to understand, on some of these, where we are to date versus what the chart's saying.

MR. AARON: Quick question. There are a couple of places where the 2013 milestones are higher than the 2017 goal and then go -- like at the very top line, 5,280 acres to 3,168 to 5,280. I assume that's just a --

MR. RHODERICK: Yes, that's a typo.

MR. AARON: In all cases it should increase?

MR. RHODERICK: Yes, they should be increasing and we have had a couple of those pop up before and I apologize.

MR. AARON: Just making sure I understood how it's supposed to work.

MR. RHODERICK: They should all be ramping up. Okay. And this is obviously a second page. And as you can see, it takes two
pages to show all these BMPs because for agriculture, we're looking at a suite of practices and obviously, again, this is not everything we do that has work quality benefits for agriculture, but this is some of what the model will read. So we're limited in that capacity.

Okay. This slide we liked because this, to us, I believe, is the value of those local meetings. When I talked about we had our first set of meetings, that was over here. For the majority of it, these were probably the major practices we saw up on the screen.

But if you look at the chart next to it, look how it shifts. Look at my precision/decision ag. When we talked about an aggressive strategy versus existing resources, it changes the dynamics of where we're going to get these reductions and how we're going to get these reductions.

So for us, it targets back to us on
how we need to focus our programs and our
resources if we're going to meet the goals.

Okay. WIP Modeling Summary.

Basically where we ended up, as I said, is all
23 counties did submit an ag strategy. An ag
strategy for all 23 counties, and as of 12
o'clock tomorrow they will be up and available
at the MDA Web site. If you go under
conservation, you can view any county, there
is a map. You can pop on the map and see any
county and see their plan just like I
displayed it there for 2013, 2017, 2025 plan.

Okay. As you can see, we haven't
done that other approach, which was great. We
did submit them to the bay program. As you
see, it took about three times to submit them
because -- a number of things: first time
submitting information like this. Second one
was -- remember, they just came out with this
model in August and they were under a deadline
to have it out so that we could use it and
submit plans by the new year.

The model never really had proper QA/QC so there were some issues that we had to go through with the bay program in order to get the information in and through the model.

And with that in mind, obviously we believe there's some further confirmation that needs to be done about some of the ag information and how the model is handling it.

Validation. And this goes to my guys in the audience, Bill and who else is out there? Jim is out there and Eric. When we were using MAST, as I mentioned, we were the guinea pigs. In some cases, as we used it, there were some things in the MAST, as we put BMPs in there, we could sense something wasn't right. It's mimicked in the model and we weren't sure. There were some issues. And since then, we've had to adjust what you were seeing in MAST. So -- and that's been done.

Things we're looking at and also
1 were highlighted by our ag work group, again,
2 because for the first time they were able to
3 look at the model. It was spitting out to us
4 like animal numbers in each county. It
5 couldn't tell us what the model was using for
6 animal numbers.

   So the first time we would look at
7 it and say, well, wait a minute -- and I know
8 this happened, I think it was Allegany County
9 and I think it happened in Harford too, their
10 dairy herd or their dairy manure, and there is
11 no cows there in the county, but yet in the
12 model it has got a slurry, it's got a load for
13 manure for dairy.
14
   So there was things like that that
15 popped up, and that is fine. Those are the
16 quirks that we can see and we understand now.
17 We will deal with it.
18
   And this is just again showing you
19 that some counties, as you say, it was not --
20 MAST, as I just referred to, was not reading
correctly. You know, you look at some areas like this where some of the crop, at least, it was off by 177 percent. That is pretty significant but that's fine. It was a plan to help us get there. But for some of the guys to reassure them we're aware of some of those issues that came up.

And again with phosphorus, there was a couple of issues with phosphorus for certain counties.

Okay. Next steps. As I mentioned, we are not alone as we use this tool to get a firsthand glimpse at the model. The other states, again, same thing. So what we have is there has been some questions and so EPA set up work groups. There is an ag work group, there's an urban work group. Urban work group has a list of probably 23 things they want to look at. Ag, we have a list of about 40.

And these things, what they have done is they have set up some subcommittees
already, and I apologize, that should be 2012 not '13. But for this year, these three subcommittees are going to look at specific things about the model and some of our BMPs. And so the first work group that's been set up is the nutrient management work group and they're looking at a couple of these. I know like what was near and dear to us was this one that says nursery BMPs, for Bill and a couple of other people. When we looked at the model, and we do a lot of things with nurseries to mitigate their nutrients, but according to the model, there's only one BMP we could use and that was water capture and reuse.

And we kept saying there's five other or six other things related to nutrient management and nurseries, according to the model. So that is one thing that we're looking at.

The other one's down here. When we
brought out the paper for cover crops and we
use, you know, forage radish, you know, we had
a lot of cover crops this year was forage
radish. We don't get credit for model numbers
at this time. So again, we know it has work
quality benefits. We've got to update the
model a little.

Conservation tillage, the same
thing. There's a couple of things up here
that we want to make sure are working
correctly so we get our full credit.

Now, jumping, as Rich did, to this
accounting for growth. This is a new
component of EPA's requirement because, as
Rich said, for every pound of new load that
would go in the bay, it's got to be offset.
We were basically capped across -- every
sector is capped. So if you're going to put
another pound in the bay, somebody's got to do
something above and beyond what they're
required to do under the TMDL.
Not only do you have to meet the load reduction, but somebody's got to do something above and beyond if you are going to add some more load.

So with that in mind, we do have a training program. It's been up and running for a while. The ag portion of it, you know, is a component that we're looking at as the possibility to provide those additional load reductions above and beyond the TMDL for when new development comes in or when new discharges want to discharge and need a permit. We have set up a process to work with farmers to identify if they have offset potentials and we can do verification, certification of monitoring.

And again, this is voluntary on the farm community. Let me assure you, this is not we're coming out looking for these. They're only if you guys want to participate.

Last year, we had over 5,000 hits on
our Web site. If you're not familiar with it, it's mdnutrienttrading.org and you go on, we had 160 accounts opened. We did about 80 farm assessments last year. We'll probably do a little over 200 this year to -- for looking for offset potentials and we've hired some additional staff to help with that.

A few counties recognized this -- I'm talking about the planning, the planners and the counties and county commissioners. I'll use Howard County as an example, it's very close, where they actually went to the soil conservation district and they said we understand what's coming here but as a developer comes in our planning office, we're going to tell him he has got to find offsets for his load. So how do we do it?

So they've actually contracted with the district to go out and work with the farm community and start looking for some of these offsets. So that as a developer comes in,
they would have a one-stop shop to say, okay, these are the offsets you need, and go to the conservation district, they identify some farmers that you may want to talk to that may provide this for you, and you will pay for it, by the way. And again, we know we have some grants that we'll try to help out with that as well.

I am just going to end up with this, which brings us back to where Rich was. Again, for agriculture, as you saw, we meet the statewide targets. We are well under for phosphorus but I am not holding on to that, you know. I am standing on that one.

Here's what it looks like statewide. I mean, right here, 51 million pounds in 2009, according to the model, is what we were dumping in the bay, all sectors in Maryland. We had to come up with a plan to get us down to 41.7. What we came up with was a statewide plan through all sectors that got us there.
I'm sorry, the other way around, 41.1 from 41.010.

For ag nitrogen, in '09 we were dumping 19.7 million pounds in. We needed a plan to get down to 15.2 and our plan takes us to 15.1. And you can see for both phosphorus and nitrogen and you can see all the other sectors as well.

So at that point, Rich and I are going to entertain questions, and I think there's a protocol.

MR. AARON: My name's Mike Aaron. I've got a couple. So the statewide WIP is done on the basin level, the county WIPs are all done on county levels. You addressed that a little bit. Could you just address it a little more.

MR. RHODERICK: The bay model was basically started in Hillhurst[phonetic] for a 64,000-mile-square area. It does very well at large geographic areas. When we started using
it and broke it down to the county level, it was not working correctly.

And so EPA saw that as well so basically said we want you to lead -- and we agreed -- that it works about -- the farthest you can take the model down to is basin level and so that is why we submitted data at the basin level. But beyond holding, as you say, especially for the districts and agriculture, we're holding, you know, our limitations are based on the county level, our observations were at the county level.

MR. THARPE: My name is Bill Tharpe, County Soil Conservation District. John, my question is your statement about how the MAST program does not account directly when you move away different practices. We do practices that, you know, that really overlap one another. So are we really getting true credit for all the practices that we're doing?

The other part of that question is,
in the bay model, have some of the items that
generated the proper reduction in credit been
adjusted, specifically one that Farm Bureau
brought up was, you know, yield potential out
of using old data which, you know, should be
higher which actually relates to more nutrient
uptake. So that -- those -- are we getting
true reduction credits that ag should be
getting?

MR. ESKIN: On the first one, when
we see two BMPs, let's say you had two BMPs,
they each had 20 percent efficiency, used
independently. Well, you put that first BMP
in and it's going to get that whole 20 percent
but now it's already taken away all of the
easily remediated nutrients, if you will.

So you add on the second one, you
had that first one there and it took care of
part of that per-acre load, the second one is
going to be somewhat less efficient. The
third one is going to be somewhat less
efficient than if used independently, and that sequencing interaction between the BMPs is part of what is in the model and that's why spreadsheets don't work too well. But this MAST that simulates the model comes a lot closer to capturing the integrate efficiency, if you will, of that treatment train.

MR. THARPE: But they're all getting credit, though, right?

MR. ESKIN: They're all getting credit, but as you put more and more on, and in fact I think that you learned something about either one makes a difference, so if you do nutrient management before you do precision agriculture, you got very little additional. But if you reversed it, you did somewhat better.

MR. RHODERICK: It's like Rich explained it. The first BMP is 20 percent, it means you will only get 80 percent remaining. Now you put 20 percent on 80 percent
remaining, so it decreases the value.

The second point about, and we did
gloss over this and I apologize. As you saw,
there is some issues up there and we're trying
to prioritize them. We are going to hold the
model where it is at this point, but we are
working the next three years through this
whole list of issues. They in 2015 will be
updating the model based on all these issues.

MS. HORSEY: '17.

MR. RHODERICK: Well, it won't come
out to '17 but they're going to do it in '15
but '17 is when you'll see the corrections.
So we all know we have work to do so nobody is
backing off. We may be further along, we may
find, by '17 based on some of these issues.

MR. ESKIN: And there are some
things that can happen now. If there's
practices that you know are in the ground that
weren't accounted for, if they were put in the
ground after January 2006, that's not a model
problem, that is a data problem, that we didn't give the model accurate information. So that could be fixed. But the kinds of changes where you have to recalibrate the model, like changes in land use, that is going to have to wait. And the reason we're closing it off in 2015 is because all of these problems, and as you start using it, you find more and more errors, we don't have time to fix them so we're going to allow that two years for the communication, the dialogue to take place. We can start using it, as the problems pop up, we can fix them.

And in fact, MAST has pointed out many problems with the model, most of which or many of which were in fact addressed. So where it didn't require recalibration, EPA said, oh, yes, you're right. That is a problem, they went back and fixed it. They didn't have any better -- MAST, I think, was a
1 better model than it would have been otherwise.

3 MS. FINNEY: Vanessa Finney with the Maryland Nursery and Landscape Association. I just want to ask John, how does -- what is the plan to address the lack of validation of the nurseries and how do we respond to the plan, knowing that there's nonvalidated for nursery or lack of recognition?

10 MR. RHODERICK: I apologize. They're on -- I apologize. We had them on a slide but -- they're on that list of 40, as I mentioned, for the ag work group, that nursery you saw will be dealt with this year. There should be a suite of BMPs such as nutrient management, cover crop, et cetera, that should be applied to the land use for nurseries as well.

19 MS. FINNEY: Well, how do you accomplish finding that out? I know there was a survey but [inaudible].
COURT REPORTER: I'm sorry, can you speak up, I can't hear you.

MS. FINNEY: I'm asking about how the nurseries are going to be able to record the BMP, they go on record with the BMPs that they are engaged in. I know MAST did a survey but the [inaudible] from that survey so is anything going to become special and reach out to nursery, or why is -- as a representative of the industry to do something, myself, acting as -- be more active in getting back to you.

MR. RHODERICK: No, both. I actually talked to the state and so we need to sit down at every possible opportunity to the nurser people and get them to understand about this, you know, about the fact that they have a load and an obligation in the model they may not be aware of and, you know, we may need to provide information, you know.

The easiest thing is to go in and
visit with Bill or with Jim or anybody in the
districts, in the county they're in, to
document what they have done. But as I said,
your limitation right now is 1 BMP load.

MS. FINNEY: Will that change? Will
they open the doors and let [inaudible] have
more to say?

MR. RHODERICK: I hope. I didn't
see the -- when I see that on the schedule.
That's an immediate concern this year.

MR. ESKIN: Just a little bit more
broadly, there is -- EPA recognizes that there
are a lot of BMPs being done that aren't
credited in the model and there's a whole
process through these work groups at the bay
program.

So basically you submit the data
that says, you know, here is what you see in
these four pages published in the peer-review
literature, here is the numbers that they
provide for this BMP, and we think that you
need to look at this and use those numbers or some combination of those numbers to start validating these BMPs and providing credit. And then it gets you to the model, it gets us to whatever table they use and it will show us that per acre load or per roll, whatever it is, per unit load. So that's happening across the board, both for urban and agricultural Best Management Practices.

MS. FINNEY: But it's too late to comment in WIP II?

MR. ESKIN: You can comment on it, certainly. I mean, in fact, that will be an excellent idea that you should say we're doing all these BMPs and they're not being credited to the model. We think it should be made a priority. We would estimate that would account for x percent of the load by pounds, whatever estimates you want to use and make your case that, you know, this needs to be addressed and it's absolutely best to be on
record with that.

MS. FINNEY: Thank you.

MR. LIPPINCOTT: Wally Lippincott.

One of the important things I thought about first grades put together like being in those different categories of wastewater treatment, and urban and ag each having their own goals separated because we know the national policy has, you know, kind of indicated other problems, that's why we have to be addressed in the TMDL.

But a lot of the folks I work with have concerns that the offset concept threatens the viability or continuity or continuation of agriculture in the state. Theoretically, you know, more and more practices, more and more land, good, land going to the forest and less left for the [inaudible]. What is your reaction and how should -- can I help address these people's concerns?
MR. RHODERICK: We really didn't get into the whole strategy. I mean, as I mentioned, I was focused on ag as an offset option, but if a developer came in as a component, the county may, you know, say to him, well, one of the options is we want to get some of these failing septic tanks upgraded. If you're willing to pay for those, in that set of septics, you'll be reducing the load offsets.

So it's not on the back of agriculture. I didn't want to leave that impression. Some other options is the county may chose alternatively to take one of the minor wastewater treatment plants and hook it up to a major, so instead of running, as Rich said, 18 milligrams per liter, it's now running 4 milligrams per liter.

Therefore, they have created a mechanism for additional developers to hook up, get that power capped and using that
1 strategy.

So yes, we are focused on, as you

say, first meeting our commitment on the TMDL.

We want to make sure that we've got enough

practices out there to meet our commitment and

we [inaudible].

SPEAKER:  Richard, how is this going
to be regulated?  For instance, is it -- the

county going to regulate it or is MDE going to

regulate?  Because what I am seeing is, you

know, it's set up, it's like dominoes and like

there is a lot of development and stuff, it
could take away a lot of best managements on a

farm due to flooding and whatnot.

MR. ESKIN:  I would not frame it so

much as being regulated as being tracked and

reported. So, for example, some things come

under permits, so the reporting is formal,

like wastewater treatment plants, industrial

discharges give us every month what's called a

discharge monitoring report where they are
required legally to report what is happening. The storm water controls will happen under the storm water permits for the most part. There is another permit called municipal separate storm sewer system permit, or MS4, and jurisdiction needs to submit an annual report as part of the permit protocols reporting is required. For the septic systems, a lot of the septic upgrades being made with BRF, Bay Restoration Fund money, and so that is being tracked too because it's being paid for by the state. And then John is using conservation tracker, going around the state to keep track of what the farmers are putting on the land. So there is a little bit, depending on the particular sector, as to how it's being tracked. But as to where there is a permit, it will be regulated, which means inspected and enforced and where there is not a permit,
it's being tracked and verified.

MS. POWERS: Jen Powers from Gunpowder Valley Conservancy. Rich, the MDE document that came out in June of 2011, it had stats on load allocations, did EPA endorse that? Is this something we can look to with --

MR. ESKIN: You mean the storm water guidance?

MS. POWERS: Maybe. It has forest and different BMPs and different ratios --

MR. ESKIN: I don't --

MS. POWERS: -- efficiencies. It's an efficiencies report that came out in June. MDE.

MR. ESKIN: For storm water practices? I think it was. And they didn't endorse it or not. Basically, we are working closely with them on what is in the permit.

There's two separate processes going on. One is writing the permits, okay? EPA
Region 3 Water Protection Division in Philadelphia is working with our water management division on that.

The other is the tracking for the bay WIP, the TMDL, that is happening out of Annapolis. And with Annapolis, we have agreed on the efficiencies, for the practices that will be tracked by the model. So basically, we're reporting practices, EPA is saying what the efficiencies are, okay?

And the guidance is just general guidance for the purpose of the permits helping because where that practice happens affects what the efficiency is. So those are general efficiencies. It's what you call relative effectiveness factors. The farther you are from the water, the less effective the practice is going to be. And there's several factors as well in that.

MR. McGINNIS: Wayne McGinnis, farmer. Some courts have ruled that the very
broad-based setback requirements of all
terrain would be considered a taking and also
would be a zoning issue and therefore invalid.
What do you have to say about that?

MR. ESKIN: John, I am not aware of
that issue or any court decision. Are you
saying the courts have decided or that --

MR. McGINNIS: Delaware Supreme
Court recently made the decision, and there
was another case in the Midwest a year or two
ago on a similar matter but it was a business
venture.

MR. RHODERICK: Are you talking
about the proposed nutrient management breaks
that require a 35-foot setback?

MR. McGINNIS: Yes.

MR. RHODERICK: That is not part of
this. Okay? I mean, this whole plan has been
put together using standard practices for
agriculture. It doesn't require the nutrient
management 35-foot setback. This is based on
all voluntary proper practices.

MS. McGINNIS: At the last meeting there was a woman who spoke about the -- from the EPA -- I'm Harriet McGinnis.

At the last meeting a woman spoke that the EPA had entered a nitrogen/lead input into the state system and how they were generally aware the air is responsible for 40 percent of the nitrogen, and I don't see any input from the EPA on the nitrogen from the EPA as the woman had spoken in the last meeting.

MR. ESKIN: What EPA has done -- the actual -- to simplify things for the states, the number that we are basically using, although it's publicly available, the total number is -- I think it's something like 217 when you include air, but EPA is not allocating the air to the individual states because that is happening nationally.

So basically just took the whole air
issue off the top and EPA is responsible for getting those reductions out of the Clean Air Act regulations that they're moving. I think it's called cross-state something now, CSAR. So they are responsible for that portion.

Anything that we can do over and above what is required federally, we can get credit for but we're not ignoring air. In fact, the director of air and radiation management at MDE is meeting regularly with the modelers in Annapolis at EPA, talking about how we can get a better angle on the air issue, how we get credited for what we're doing here in Maryland, say, with the Healthy Air Act and how, for example, we adopt clean cars or what's called catalytic 2, we should get additional credit for that.

Anything that is not included in the broad national air regulations that we do over and above that, we want to get credit for. We are not ignoring that issue.
MS. McGINNIS: Do you perceive that it will go into our program, our state program?

MR. ESKIN: Yes, I think it will.

In fact, I know that EPA right now is talking about some new fuel standards that require a lower sulfur in gasoline. I mean, if it's sulfur, well, we're not talking about sulfur. But what happens is the sulfur in the gasoline poisons the catalyst to some extent, it's still operational but they're not as efficient as they could be. And what those -- the catalyst and the catalytic converters do is actually remove the nitrogen that occurs at high temperature in your engine.

So if these catalytic converters are more efficient because there is less sulfur in the gasoline, we'll actually get a very good reduction in the atmospheric generation that we can take credit for. We're looking at all of that.
MS. McGINNIS: What about the air over the bay where there is no cars?

MR. ESKIN: Well, the air is very well-mixed. I mean, you know, the winds are coming from, you know, west. In fact, part of our problem -- something like 70 percent of the nitrogen oxides that are coming into Maryland are coming across the state border.

We've basically done all that we can on air, very near, because we have got some of the most stringent requirements on power plants anywhere in the nation. So we've done -- everything else is coming from outside and that is why some of the states are even suing EPA to make other states reduce their load. Even though they don't have a problem, they're shifting their loads over here. So we're working very hard on that area. We're working with EPA as well as working with Maryland to address the air issues.

MR. BARNABA: My name's Kevin
1 Barnaba. I'm the environmental health
director for Harford County Health Department.
I have a question related to septic systems.

    We've talked about how this is going
to be regulated and you had mentioned more
track when talking about septic systems.
Well, for Harford County, the amount of money
that we've received from the Bay Restoration
Fund for septic system upgrades probably
wouldn't even resolve about one percent of
what we have to do as far as nitrogen loads
for our septic systems. So my question is is
if the other 99 plus percent can't be met,
what happens?

    MR. ESKIN: Well, there is a couple
of things that you can do. This is the kind
of thing that you should consider in your
plan. So let's say you have some failing
septic systems, you maybe want to hook them up
to a wastewater treatment plant. That's not
cheap either but you could do that.
Another option would be to, let's say you have a minor wastewater treatment plant and you upgrade that plant instead of doing the septic systems. That might be actually a, certainly easier to handle and deal with and may be more cost effective depending on whether -- maybe you could get rural development funds from USDA, or there is a state revolving loan fund, a certain percent for that now needs to be in grants and is available. So there is a number of funding options depending on what you choose.

In doing the allocations, we try very hard not to actually target or be perceived as targeting any particular set.

Unfortunately, this all started out, somebody came in to say we're going to get agriculture, we're going to get storm water, and we disagree entirely with that. We're not out to get anybody. We wanted our allocation to be as equitable and objective as possible.
Basically, we want the people who will pay the amount of reduction you need to accomplish is proportional to the amount of pollution you create. That may not be the most cost-effective way. But that's an equitable way and we were hoping that the cost effectiveness would come around subsequently when you say, okay, that is our allocation to this sector, we'll pay somebody else to do it because they can do it a lot cheaper than we can do it ourselves, and that's how you get to the cost effectiveness.

So, look, don't feel that although you have an allocation for septic systems, that it's written in concrete and it can't be modified. Look for alternative ways to open it. Community systems that do better than individual systems might be an option.

A developer comes in and let's say there's a failing septic system not too far
away, maybe you could get that developer, as part of his offsets, to build a community system that could encompass both his development and the adjacent development because if you're already putting in a system, it's pretty cost effective and so instead of upgrading those septic systems, you can connect it to a local community system that would be more cost effective than either connecting them to a bigger wastewater treatment plant or upgrading the individual septics.

So think out of the box. Think about ways to leverage the private sector to get them to help you because when those accounting-for-growth policies come out, they're going have to find those offsets.

MR. MILLER: My name's Gary Miller and I'm not a fan of the state government and I'm certainly not a fan of the EPA. And you're saying the EPA does not target
agriculture, but when it comes down to your farm, your family, and your livelihood that is affected, it certainly comes across that way. There is very few folks in the agricultural community so that is where we get this -- that we feel as though we are targeted.

Your model changes -- if our goal -- and if the goals you set are met by, say, 2020, will the EPA go away or will it just make it more stringent? I bet it won't go away.

MR. ESKIN: They won't make it more stringent either. This TMDL which -- the number for the whole bay actually has been very stable as they have run the various predictions and models. Pretty close to the same number, and that is sort of the fixed amount. The bay can take that amount and still be where we need it to be. So as long as we're getting that amount, we're not going
to make that TMDL more stringent.

We may find that the practices aren't as efficient as we thought they were and therefore we need to do a little bit more, but we're not going to make them more stringent per se.

Now, in terms of, say, agriculture feeling targeted, even before this bay TMDL, EPA came around to maybe just to Baltimore City and Baltimore County, WSSC, that's the Washington Suburban Sanitary Commission that handles the water and sewer for all the area around D.C., and they have to upgrade all of their -- well, they have to upgrade their major infrastructure, the pipes, we get storm overflows and stuff like that.

Well, those communities each has to ante up over a billion dollars to fix that infrastructure. So the urban folks are getting hit pretty hard too, and I know, I see my bill going up year by year.
This is an impact -- Clean Water Act was revised in 1972 and really we have not paid attention in many ways. It's not just agriculture, it's urban areas, it's the agencies, it's EPA itself who got sued left and right for not doing what they were supposed to do. And now basically it's come to the point where people said you need to follow the law that was passed and we're having to make up for 35 years of ignoring that law. And it's not coming at a good time.

MR. MILLER: Right. When the EPA gets sued, it doesn't come out of your pocket. When I get sued, when my neighbor gets sued, it comes out of his pocket.

MR. ESKIN: Well, actually, it does. That billion dollars, I mean, I pay some of that so it does come out of my pocket.

MR. MILLER: Well, wait till you get hit with a four and a half or five million dollar lawsuit personally.
1           MR. ESKIN: No, that doesn't --
2           MR. MILLER: Right --
3           MR. ESKIN: Right. But --
4           MR. MILLER: That's what --
5           MR. ESKIN: Well, you're not, I
6       mean, at least you were [inaudible]. I know
7       there's something going on the Eastern Shore
8       and we won't talk about that tonight.
9           MR. MILLER: Right.
10          MR. ESKIN: But that's a different
11       issue.
12          MR. VAUGHAN: No, it's not.
13          MR. ESKIN: Well, it is because I
14       don't agree with the way -- with what is going
15       on there. Basically, our department handled
16       it and that should have been the end of it but
17       not -- I think it's really unfortunate, I
18       think, that those folks are being treated like
19       collateral damage and it's really -- my
20       feeling is -- the developer expressed this as
21       well -- that they're not being treated fairly.
And but there's nothing that we can do about that here tonight.

So we're here to really talk about the WIP and the TMDL and help people understand what is happening.

MR. VAUGHAN: My name's Dan Vaughan and I'm from Harford County and I don't know where to start. I'm going to apologize for rambling because I don't know where to start. I'm this close to either crying or puking. I don't know which. I don't know where to start in all this.

Okay. The WIP meetings, we had one in February. We're going to get together in September and go over all these things that we weren't given credit for. We never had no meeting. I've been on the WIP program since I was asked to be on the committee, and the first meeting that we had of the committee -- and you know this, Bill -- I have never been contacted once about another meeting.
I don't know where you're getting your information on what we get credit for and what we don't get credit for. I just found out two weeks ago information about the CREP program which gives you credit for a lot of other conservation things that we do that we don't get credit for. This has been going on for years but I never knew about it.

This meeting, I didn't know about it until two days ago. Now, maybe I am supposed to be on a computer or something. I don't know. But I'm not. We have to find out this information by ourselves.

Okay. The next thing. When you're talking about the bay loading, I want -- does anybody here realize that when the earthquake happened back a couple of months ago, a 54-inch main sep coming out of Baltimore City, 20 million gallons a day for 30 days raw sewage into the bay. Was that on the news? How many -- hold up your hands. How many knew
that? Okay. Was it on the news? No.

I found out about it from a Baltimore County sewer foreman and he said if they admitted to 20, you can figure it's double that. So all of our work continues to get wiped out by this municipal stuff and it goes on and on and on and on.

The EPA has got to leave us the heck alone. I don't know where -- I don't know how we're going to stop it but something's got to be done. You're talking about -- he made mention about people being sued and, John, you were in on this just a year or so ago and the efficiency, the money that you're dumping into this and you're not accomplishing nothing.

You've spent $20 billion to get to where we are today and you're still saying the bay is no better.

You went after a local farmer for two years, costs I don't know how many millions of dollars, and Judge Cavanaugh fined
him 20 bucks because he did everything he was
supposed to do. But you and people in the
Maryland EPA went after him, went after him,
went after him and just about drove the poor
man insane and bankrupted him, almost
bankrupted him.

And when it came down to it, all the
facts were studied and read, it cost the state
I don't know how many million dollars, they
fined him $20.

Now, this is what we're trying to
make you understand, you have to leave us
alone.

Septic tanks. There is no better
way to deal with wastewater than septic tanks.
I don't care what anybody says. My well is
tested every year by the state with my well
permit. My well is 40 feet deep. My septic
tank was put in in 1920 when they built my
house. It is 60 yards from my well. I have
perfect water because it works. Yes, some of
them may fail but you can't make these blanket
assessments.

Then the next thing I want to yell
about, about these assessments. Here was
regrets, okay, well, this model is going
wrong, but they keep changing it. Well, it
didn't work out this way so, well, we will
just readjust it to make it -- it's all smoke
and mirrors. It's like a giant shell game.
Where's the pea next? You keep moving it, you
keep changing the rules.

Like he said, where is it going to
end? When is it going to end? I don't know.
I don't understand, you know, what we're
supposed to do as a people. How are we
supposed to feed all of you people? How are
we supposed to feed the world?

In the next -- by 2050, agriculture
of the world is going to have to produce as
much feed for human consumption in the next 40
years as it has in the past 10,000 years, in
the next 40 years. How are we going to do
that if we keep constantly have to play these
silly games.

The meeting that we had in Bel Air,
you were there and I talked to you then.
We're going to get credit for these things?

MR. RHODERICK: Yes.

MR. VAUGHAN: Well, it's all
pickety-pick bullshit stuff. If you want to
fix something, start with municipal, get that
fixed, no more municipal wastewater going into
the bay, untreated, then come back and start
worrying about us.

We don't pollute intentionally. We
don't pollute -- we can't. We can't afford
it. Every drop of manure that we produce, we
utilize for our crops. Every time we go out
on the field, we're getting scrutinized. Oh,
we can't spread manure before March 1st. Now,
my neighbor is spreading sludge. He's been
spreading sludge for two weeks. When you call
the Maryland DA, complaining, do you know what they tell me? It's permitted.

Now, he can spread sludge but you're not supposed to spread manure. It's all smoke and mirrors. And how are we supposed to care about anything you people are doing when you've been goofing around all this time and you've accomplished nothing? I mean, I don't know.

MR. ESKIN: Well, we actually have accomplished a lot. In the face of growth, we've stabilized the loads going into the bay. There is some areas that have been showing significant improvement. You cite, you know, a pipe that broke. Yes, things that we build break occasionally. It was fixed. The sewage is relatively removed. We're going to have a city --

I'm sure things break on your farm and then you fix them. Well, this broke, probably was 50 or 60 or 70 years old. It
broke in the earthquake, certainly that
couldn't be predicted, and they fixed it as
quickly as they could. We were spending two
billion dollars, more than that, across the
state to fix these things that happen more
frequently.

You know, basically it's old,
there's pinholes in the pipes and so forth.
We are fixing that. We are making progress.
Where we're not making progress, more people
come in -- as you point out, there's going to
be more people in the world. We're fighting
against that as well.

I think that the agriculture
community is certainly doing its part. There
is no doubt about that. But there are areas
where it's likely that too much manure is
generated, more than can be used locally.
Across the state, it might be fine but there
are local areas and then what happens when it
runs off.
And I think they're working right
now if I'm not mistaken to make the sludge
regulations and the manure regulations to some
extent consistent with each other.

So we were trying to pull this all
together. It's complicated. It's difficult.

It's expensive.

As far as, you know, getting the EPA
off our backs, you need to talk to Congress
about that. They passed the Clean Water Act.

We're a country of laws. It says that we need
to do these things and EPA is just doing its
job. It's doing what Congress told it to do.

You know, it's the best answer I
could have for you. It may be not be
something really satisfactory. You may still
feel that we're not doing our job and this
whole thing is crazy.

I can tell you that through the
Clean Water Act, I mean, think back to why it
happened. Lake Erie is catching on fire. Our
streams, the Potomac is a cesspool and now it's a bass fishery.

We are making progress. Sometimes, you know, it seems like, well, they're picking on me or they're getting too nitpicky about things that we need to do. We're all hanging through stuff. That is how we make progress. Now we're getting to the more difficult phase and it is hard. I understand that. But we're told that, you know, according to our laws it needs to be done and so we're trying to do the best we can.

I mean, in some states the state may have developed a plan all by themselves. Are we perfect? No, of course we're not perfect. We're doing the best we can under the current situation. We're soliciting input. We're doing our best to get the word out, we're holding these meetings, you know, again and again.

If we missed you, I'm sorry about
that. Get your name to John, I'll make
sure -- they'll put you on the list and make
sure we send you a letter. I don't know what
more to say beyond that.

MR. RHODERICK: Just real quick, I
mean, I am really proud of Maryland farmers
because if you look, and I'm looking right
across the board, I mean -- Bill, help me out,
what was the one in Virginia or was it
Pennsylvania, 49,000 farmers?

MR. THARPE: Yes, Pennsylvania,
49,000 farmers in the Chesapeake Bay, 30,000
of them didn't have conservation plans.

MR. RHODERICK: We've got over 68
percent conservation plans in Maryland. I
mean, you look -- as you say, look at the
cover crops you've got. We are so far --
we're showing you the numbers up there, as you
said, like raw load, we're making almost 10
million pounds a year from what you're already
doing and we only have to do four million
more. I think Pennsylvania, they have got to
come up with a plan for 12 million pounds.
I mean, we are so far ahead and, you
know, there is a goalpost and I think with the
plan we've got in place, we can beat it. That
is huge right there.
I am not discouraged. I'm just
thrilled we're here. I'm aware of that
because these other, Virginia and
Pennsylvania, they don't have a plan still.
MR. MILLER: So, John, when you
reach that goal, will you go away?
MR. RHODERICK: Me personally?
MR. MILLER: It started out with
nitrogen. Nitrogen was a problem. Well, then
when we found out -- well, let's find
something else, so then we went to phosphorus.
Now it's sediment, now it's septic. The rules
keep changing and the better you get, the more
you twist the screws.
MR. RHODERICK: Well, what we have
1 heard from the EPA and what they said was you
2 have the plan up here, you've got numbers.
3 You've got widgets on the board. If you
4 implement them and meet the goals --
5           MR. MILLER: Yes, will you go away?
6           MR. RHODERICK: Well, the water
7 quality -- recognize the water quality may not
8 respond as quickly and it may take time. So
9 they're very focused on can we meet the goals,
10 can we do the widgets. With that, we
11 recommend a plan and that is a huge statement
12 right there. I mean, you know, obviously down
13 the road if we're going to respond, yes, but
14 initially, if we meet the plan, we stay on
15 track, they're off our back.
16           MR. LE GARDEUR: My name's Theaux Le
17 Gardeur. I'm a Gunpowder Riverkeeper. I have
18 a small retail business up in Monkton. We
19 take a lot of people fishing around the cold
20 water resources of Baltimore County, and I
21 have three questions for you.
One is about the model. And I want to ask, on the model, what kind of compliance information was put into the model regarding point sources? That is, is the model a best-case scenario if everything is working under permit conditions, or was the compliance information put in on actual permit conditions?

MR. ESKIN: They used the actual discharge monitoring data. In fact, that was a problem for us this year because it looked -- it's been a very heavy rainfall year and the wastewater treatment plants get something called inflow infiltration and it increases the flow through the plant. So the loads go up just because of the rain, even though the plant's operating more efficiently. So yes, it's actual data that goes into the model profile process.

MR. LE GARDEUR: And I wanted to mention I come from a family of farmers in
Louisiana and these farmers, they're asking about wastewater treatment plant loads and storm water loads.

Really, those questions interest me too because I know that looking at nitrogen in Baltimore County, on the Phase II WIP, nitrogen is about ten times about that as far as the load allocations that are represented in the Baltimore County plant, and phosphorus loads are about three times that.

Yet when I look at wastewater treatment plants throughout the Baltimore County watershed, there's six wastewater treatment plants and only one by 2020 is going to be updated to connect to Back River and the others don't have any other plants to be updated.

MR. ESKIN: These are minor plants?

MR. LE GARDEUR: They're minor plants, yes.

MR. ESKIN: And we looked at that
and it's still on the table. In fact, we put into the WIP that we would upgrade five plants statewide. The task force recommended we do ten. We're still looking at that.

The major plants, the 67 major plants account for 95 percent of the flow. So all of those minor plants put together are only five percent and it's really not necessarily very cost effective statewide to upgrade those plants, although locally it might be able to make a difference.

That is part of what is going into the process of deciding which plants -- which of those -- which of the five minors that we're going to upgrade might be local conditions [inaudible].

MR. LE GARDEUR: I would love for you to push Baltimore County to look at upgrading the minor plants that are in Baltimore County because we have seen so many beach closures at Haviland and down towards
the Bird River, Lower Gunpowder in the summer and fall.

MR. ESKIN: When there's closures, that's usually due to bacteria, not nutrients, and really if there is a bacterial issue, that would be handled with compliance. Basically these days, disinfection is very, very good. We know how to do it very well. We have been doing it for about a hundred years. So the beach closures probably aren't necessarily due to wastewater treatment plants.

MR. LE GARDEUR: Well, we have storm water and we have other -- and we have --

MR. ESKIN: I was --

MR. LE GARDEUR: -- a consent decree, Baltimore County consent decree.

They're not supposed to have any spills by 2020 but it happens every time it rains.

MR. ESKIN: Usually, the spills are not at the plant themselves. They're in the piping and transport system and that's what
that million dollars was going to fix.

MR. LE GARDEUR: Okay. All right.

Thank you.

MR. ESKIN: So we're working on that.

Do you know how much the actual consent decree is, like 1.2 million?

MR. STEWART: Yes, I think for Baltimore County the price tag is somewhere around 1.2 million dollars. We've got until 2020 to get all of those upgrades in and there are still some without consent decree. And the city has until 2014. They actually had the consent decree before we did.

The major focus originally is on the system itself, looking at finding the leaks and so forth but it's also on the pumping stations. There's 120 some odd pumping stations. They're not treatment stations but because sewage flows downhill, basically you've got to get over the hill to get it to
the treatment plant and so they've put a lot of progress on the pumping stations, getting those up and they have actually prioritized the systems based on age.

So the older the system, the earlier it is in terms of going in, checking it, and they have to do flow studies, they have to calibrate the systems and then they have to identify based on that -- identify where the problems are and then get the design to our system. In some cases it's simply relining, in other cases it's actually replacing the existing system with a brand-new system. So it's not an easy thing to do. It takes a little bit of time to go through your design and all of that but it is making progress.

In terms of the bacteria at the beaches, storm water runoff, if you fix all of the sanitary sewer and you don't have any leaks, you're still going to have bacteria problems at the beaches. That is just because
we have wildlife, we have pets, we have other
sources of bacteria, you're going to have
[inaudible].

I don't think there is anywhere in
the United States after a rain event that
you're going to actually not have problems
with bacteria.

MR. LE GARDEUR: Can I ask a quick
follow-up on storm water. So the follow-up on
storm water, as you mentioned, compliance has
been a big aspect of how you regulate
wastewater treatment plants. I understand
that MDE is under a consent decree to
essentially evaluate storm water in Baltimore
County every three years.

MR. ESKIN: I mean, basically the
program is every five years. We're working
with EPA on that.

MR. LE GARDEUR: But MDE is to
provide a compliance aspect to Baltimore
County storm water?
MR. STEWART: There is a number of things MDE has to do. The actual storm water regulations are delegated for enforcement at the local level and so MDE, every three years, does a delegation review -- it's not under a consent decree or anything like that -- for erosion and sediment it's every two years.

Again, it's a delegation thing and then MDE comes out and looks at the program, looks to see whether it's accurate, whether it's meeting everything it's supposed to do and whether we're fixing it if it's not. But I'm not aware of any consent decree.

MR. ESKIN: No, I didn't hear anything about that either.

Is there anybody who hasn't asked a question yet who has a question to ask?

MS. POWERS: Jen Powers, Gunpowder Valley Conservancy. This goes back to the farmer's comment about just learning about CREP. The 2008 Farm Bill had a lot of
programs for conservation and money for farmers but what I had learned was that there wasn't enough staff, I guess, maybe to implement at the ag district or [inaudible]. But just in the framework to get the word out to advise farmers on this money is available to them.

How is Maryland going to change that and is Maryland working towards making sure those programs are retained in the 2012 reorganization of the Farm Bill?

MR. RHODERICK: Okay. Good question. Great. We have a good answer, hopefully. Basically, you're right. Where we're at is it's never been about our programs. We have capital moneys. It's the ability to get out and work with individual farmers.

At this point, the best we do is when a farmer comes in to us and says I heard about this and I am interested in it, would
you come out and look. We have a backlog in
the office of people like that.

So that means we're not doing the
other, which is going out and visiting the new
cooperators or working with farmers and
really, you know, providing assessment service
that we should, so, right. And that is the
issue.

Just as you heard, people are
unaware. As these programs roll out, we can't
get the word out. We send newsletters. These
guys do a great job, you know, but, you know,
you really need to go down the lane and knock
on doors and we don't have that ability.

So with that in mind and what you
saw up here, when we did talk to the governor,
we were understaffed and he saw these figures
about we have to go to an aggressive strategy,
we can't do it with the existing resources.

He recognized that, and if you
notice, right now there is in the legislation
under the trust fund, they would potentially provide us enough funding to hire 30 additional people. Sounds like a big number but that's about one additional person in each conservation district, but that's a great start.

I think we did our analysis based on that and we need about 140 to 160 people to initiate it and we have about 80, so 30 is a great start towards that number but we're still going to need more.

MS. POWERS: And what are you doing to protect those benefits that were in the 2008 that are maybe cut in the 2012?

MR. RHODERICK: Well, that's at the national level. You have seen what I have seen in the paper. While they're increasing funding, certain sections of the Farm Bill is under attack. That's all I can say at this point.

MS. HORSEY: John, we have those
people that are out there doing CREP outreach now.

MR. RHODERICK: Right. We do -- we did hire specific CREP -- we do have a couple of people doing grant funds to -- we got some grant money do that.

MR. WILLS: Keith Wills, Baltimore County Farm Bureau. We're working -- we just met earlier this week at the soil conservation district, trying to put a program together to I guess to inventory the [inaudible] BIDs.

Two questions I have that came from this and I am not sure if you know the answer or not but the nutrient training programs, they're verified on an annual basis, correct?

MR. RHODERICK: Depends on the BMP. Annual practice -- everything has to be done, at least annual verification. Those cover crops are [inaudible].

MR. WILLS: A question on that. Is there any type of outreach that's actually
going on to educate the, I'm going to call it
the absentee landowner. That is the ground
that is being tilled by a farmer, owned by
someone else, as to having, like I said, a
longer term lease contract on that land.

Because, let's be honest, if it's a
cover crop program and it's being done on a
annual basis and you've only got a one-year
lease on the ground, right? Are you going to
put any more money than what's available? You
need to get your one crop out of there when
you don't know if you're going to be -- if
that ground's going to be yours.

Are there any -- is there any plan
for any type of outreach or education programs
for anything like that?

MR. RHODERICK: For the absentee
landowners, I mean, obviously if you lease
ground, you've got the guys here, as you say
leased ground is all about, you know, who is
going to pay the most. So, you know, if I am
a landowner, you know, I've got a couple of farmers who want to lease it, do I want to tie myself into somebody and pony up, no.

MR. WILLS: When you say it doesn't have to be, you know, the newest and best [inaudible].

The other question I have is -- I am not sure you can answer this one either. If you're doing an actual cost share BMP, it was brought to my attention that if the profit is actually, the cost share portion is over the $5,000, that there's actually attachment to the deed of the landowner's property that runs that away from the BMP; is that correct?

MR. RHODERICK: Eric, help me. Is it 10,000?

MR. HINES: Five.

MR. WILLS: I had talked with several people this weekend and knows the program and they're not aware of that at all.

And actually those who were aware, that is a
real -- very negative that if you're a
landowner, have something attached to the deed
of the property, they're very concerned about
that. I just see that as a major aspect of
going forward in the cost share programs but
that is the --

MR. RHODERICK: That's the
controller's office. These are taxpayers'
dollars so they want, you know, accountability
that, you know, funds expended, you know, is
maintained and it's there. So that is
something that is from the controller's
office.

MR. WILLS: Okay.

MR. SWACKHAMER: Another question
on -- I'm Gene Swackhamer, farmer in Baltimore
County and also MARC here in this building.

On the trading of nutrient values
that are appropriate, does the -- I can see it
in the aggregate how it benefits and how it's
an escape valve for further development, but
is there any basin or county constraints on
the trading so that the credits and so forth
in the aggregate also get reflected at the
point at which the use is being developed? Do
you follow what I am saying on that?
MR. RHODERICK: Are you talking
about delivery ratios or equating a pound as a
pound?
MR. SWACKHAMER: Well, yes. If in
the aggregate you're looking at basins or a
large territory, the nutrient trading will
work very well, I think. But then if it's an
adjacent property to me, and it more than
offsets anything that I've ever done because
all of a sudden they've benefited septic tanks
in another county but they're not working on
the stream that flows through my property, how
do you get -- it's distorted data, I think,
after a while.
MR. RHODERICK: We have in -- the
tool we use, it looks at both where the
buyer's located and where the seller is. So I'll say if you're a buyer, keep it simple, you know, here in Baltimore County. But if you're buying, let's say, in Washington County --

MR. SWACKHAMER: The buyers are going to be wellers.

MR. RHODERICK: Well, the buyers, the wellers here, the only offset you can find in Washington County, we have a mechanism in place and, again, it's a model mechanism but it talks about the delivery ratios. So you equate both loads delivered to the bay. So where you're located, what --

MR. SWACKHAMER: That's right. That's why it works well in the aggregate, but not if it's starting slurry home fairly quickly.

MR. ESKIN: Well, trades are limited to -- I mean, there is -- if there is something that is going to cause degradation
of water, that trade would not be allowed. So basically, and because John has the thresholds, you need to have a certain -- you need to have done a certain amount towards the restoration goal, you can't -- you'll be in good shape locally as well.

MR. RHODERICK: We actually had that case on a plant that's not to be named. It was on a tributary and they wanted to increase their flow and they wanted to trade by offsets. But in loading the model, by them putting more load into that specific tributary, it was going to create -- it would have caused a problem so they couldn't trade. Even though they wanted to expand, you can't do it.

MR. THARPE: Bill Tharpe from Harford County Soil Conservation. I don't want to be pessimistic but I need to hear the answer to the other side of the coin.

In the past meetings, in the ag work
group meetings, we've talked about contingencies and I assume the contingencies are if we don't meet our goals, but when will they kick in? Will they kick in at 2017, at 2025? Who establishes those contingency plans and, you know, then who has enforcement --

MR. ESKIN: I can't give you a definite answer. I think that the way it will likely work is that, well, we like to be working with counties. I'm sure John will continue working with you conservation tracker to know where we are. I would expect that the first point at which we talk seriously about consequences would be the 2013 milestones, and unless something goes through in the General Assembly, now basically you can't do anything unless it's all paid for. Conowingo can't open its gates, Conowingo can't close its gates, you know, it's all over the place. If we can have something like that, and gave copies of that to the media, they
would say, well, even though you've passed this, you're not going to be able to meet your goals, we're going to start recommending consequences and tell you what to do.

But assuming that, you know, there's generally cooperation, I would say that if you look at progress in 2013, if there is something fairly seriously amiss, I would say that they would probably give us a chance to correct it. But if that correction isn't happening, then there would be discussions about consequences.

They're not going to come in and say, oops, you're not making it and the next day they're going out there with the marshals or something changing permits, it's not going to happen that way. It's going to be a discussion.

They don't want to impose consequences. They really, really don't. They know it would probably end up in court.
It would be a mess for everybody. They'd much rather work with us, cooperatively, to make the progress.

But on the other hand, in the spotlight, and these other states who aren't doing well and they permit something here, then how are they going to justify it somewhere else.

So very general, we will have to see how it works out. I am optimistic that it won't come down to consequences.

MR. RHODERICK: I mean, let me give you an example. If they go to the farm and they just said, what if we cut CREP out, I mean, part of your goals up there with farms as far as funds clearly there is a dialogue to go here. You entered into this contract, if you want to call it, based on, you know, funding that was in place and there's, of course, no reason to --

MR. THARPE: We've already lost
CREP, I mean, you know, Baltimore [inaudible] hasn't allocated to anything and if it does, it's going to be connected to an endangered species. So I have watched three to five projects because of that funding program not being set up the same way as it was last year.

MR. RHODERICK: We've got to talk to [inaudible].

MR. THARPE: Good luck.

MR. AARON: Mike Aaron, Blue Water Baltimore. Couple of related questions. Number one, just staying with the whole deadline issue, county plans aren't due to be finalized until June, the state plans are going to be finalized the end of March. How do you sort of get the county information from statewide if there is that disconnect?

And another sort of related question. A lot of the county plans didn't have any funding mechanisms or didn't have what I would consider adequate funding.
mechanisms. How do you submit a statewide plan without knowing how these things are going to be funded?

MR. ESKIN: There is actually a fair amount of funding in total, not nearly enough for what we need, but there is a fair amount. Part of the reason, not going into details, is that it's based upon [inaudible] is not really good for us, with us having submitted in March in the General Assembly though it's not due until the first week in April, but the Bay Restoration Fund, I mean, they're talking about now, you know, it was do we double, do we triple it. Some even said quadruple it. They may probably have to split the baby here and go somewhere about two and a half million. Then we need to look at the budget. What's in the trust fund. Where we actually have asked EPA for some more funding and they said, yes, we'll talk to you [inaudible] more funding.
And I know we have been -- we've gone down and spoke with the Undersecretary of Agriculture about this, about the WIP and about the need for funding among other things. Agriculture -- the federal Department of Agriculture actually has helped out in Anne Arundel County with some of their upgrades to wastewater treatment plants under the Rural Development Program.

So there is funding out there, the state revolving loan funds. I think I said earlier that some of those funds are being used for grants now. There are opportunities. This is economically -- everybody's getting hammered: the local, state and the federal level. So the way I like to look at it is what we need to do now is to make progress. Don't worry about taking off the whole, you know, seven-billion-dollar bite, ask yourself what can we do in this upcoming budget. How do we show continuing, incremental progress.
We do know that there is going to have to be likely some local increase for storm water permits and local upgrades, regardless. Several municipalities, at least one county, two if you count Prince George's, have a storm water utility, P.G.'s value added tax. That's a good place to start, at least to get the authorizations and the structure in place, even if you don't actually begin imposing funding right now.

That's the kind of progress EPA's going to look for, and you can get revenue. You have to set up meetings even if that revenue isn't just coming in just yet.

MR. THARPE: That was a long way to say you're not sure, but we'll do the best we can.

MR. ESKIN: That's exactly right. There are unknowns. These are bad -- economically, it's a bad time to start this, but every other time we try to make progress,
there was, oh, not now, we can't afford it now. It's been spent, it's too complicated. Until finally, you know, it just all exploded and it happened to explode at the very worst possible time.

MR. THARPE: Any guesses on how to deal with what is going to be a significant shortfall for bills that are currently in the legislature for funding, storm water for funding, dealing with septic tanks that don't pass?

MR. ESKIN: I don't even want to think about it if they don't pass this. If the bay legislation funding doesn't pass, that is a whole new ballgame and I have no idea how that is going to turn out. I've heard that it seems very likely there is going to be some agreement. I don't know more than that. I am not directly involved with those discussions.

MR. McGINNIS: The greatest loading just seems to be on the Eastern Shore -- Wayne McGinnis, farmer. Greatest loading is on the
Eastern Shore, the Potomac watershed. Are those farms required to have a proportional reduction in loading as compared to Baltimore County?

MR. RHODERICK: Yes. I went -- a couple of you are familiar, we actually showed previously some charts and you see like -- I want to say Caroline County, the load reduction they were looking at was almost a million pounds, Kent County was a million pounds. Whereas in Baltimore County, based on the amount of land acres you had and animals -- come on, Jim, help me, was it 100,000 or 200,000 pounds for Baltimore County?

MR. THARPE: 235.

MR. RHODERICK: 235. So yes, depending on how much ag acreage you had and the amount of animals, that's how -- that's what drove those load numbers per county.

MR. AARON: [Inaudible.]
MR. ESKIN: I'm sorry, say that again.

MR. AARON: The MDE has delegated authority for enforcement actions.

MR. ESKIN: Sure. That hasn't changed because of the WIP. It's still the same.

MR. AARON: Okay. Is there any thought on how to alter loads in the case of new information that comes down for climate change?

MR. ESKIN: You know, that is an interesting question and it's a very real question. I don't think that we know enough to answer it at this time. We know, for example, or we believe the trend seems to be that because of climate change, we're seeing larger variations in the weather. So you have, you know, downpours more often than you used to. You have higher winds than you used to.
So it's a good question. If we're designing for what has been happening in the past, say, you know, one inch is becoming a larger and larger portion of our total rainfall, going to come in larger storms rather than the average storm. In other words, the precipitation in the average storm is going up.

We have to -- we don't have enough experience, enough data yet to really make any projections, but I am pretty confident somebody is going to bring that up for the next generation model and whether or not we can do that.

Even now, though, we use an average period of like a ten-year hydrology, so that's, you know, not affected by year to year. We may have to move that ten-year period up to capture more variation than we had. You know, 15 years ago with ten-year hydrology we were using in this iteration of
the model. But yes, I mean, we are going to
get more sediment into the water as the water
level goes up and we have a rising water
level.

MR. AARON: [Inaudible] farmers.

And then we come back to them and then say,
hey, there's more sediment, there's more
nutrients [inaudible].

COURT REPORTER: I'm sorry, I can't
hear anything you're saying.

MR. AARON: It seems like the
discussion on the reduction of sediment is
pretty weak.

MR. ESKIN: Yes.

MR. AARON: But based on the
understanding that the phosphorus finding of
sediment and the impact of storms, it seems
that we need some more detail in that section.

MR. ESKIN: We have been working on
nutrients for 20 plus years. We've really
haven't been working on sediment for nearly
that long and I'm sure we're going to see some improvements in the way we handle sediments in the revision of the model in -- by 2017.

Right now, it's actually a pretty good estimate that the practices that we use to control phosphorus, which is basically keeping the sediment in place, we're also keeping sediment in place obviously in roughly the right amount. There is some places where that may not prove to be true, very specifically if a lot -- let's say a particular basin, most of the phos reductions coming from the wastewater treatment plants, we are just directly getting a lot of phosphorus reduction but no associated sediment reduction.

That is where that will fall apart.

So now D.C. might have a problem with the Blue Plains Committee, but on the other hand, they're paved over so where is the sediment going to come from.
So it might be a load problem but statewide we don't think it's going to be too much of an issue. Overall, we'll get a better approximation of that in 2017, I think.

MR. MILLER: I have a comment. And it's great that we can all come here tonight and get together and talk and you can hear different points of view and still be civil. And I've lived a real sheltered life. I mean, I don't get out much and I don't want to cause anyone embarrassment by singling one person out, but I have to.

It's fascinating me, this young lady sitting over here tonight. She's been recording all this, her fingers have not stopped since we started.

And you're to be commended for it.

COURT REPORTER: Thank you.

(Applause.)

MR. ESKIN: By the way, the reason that she's doing that is so that we can post a
transcript so that people who were not able to attend tonight can get online and see what went on and maybe they can form their own questions. They won't be here but at least they'll be posted on the Agro-Ecology's Web site.

MR. AARON: I only have two more.

MR. ESKIN: Let's get them both at once.

MR. AARON: These are a little more detailed so bear with me. On page 39, there is a reference to "those needing to purchase nutrient offsets will be required to purchase slightly more credits than they need." What does "slightly" means?

MR. ESKIN: Well, that's part of the policy that we're working out.

MR. RHODERICK: If you actually look at the current trading program policy, it talks about, as you said, we're very concerned not just to have a one-on-one trade, so right
now we're required for trading ten percent
over. So if you were the buyer and you needed
a thousand credits, we're going to make you
buy 1100. You get your thousand but the other
ten percent goes through, the good with the
bad [inaudible].

MR. ESKIN: That's on the trading.

MR. RHODERICK: That's on the
trading.

MR. ESKIN: But on the offset
policy, the ratio's maybe higher.

MR. RHODERICK: Right. They may be
higher. Depending on where you're looking.

There is that whole component.

MS. HORSEY: The part that he's
referring to is under Safety Margin for
Offsets.

MR. ESKIN: One more question, then
we will give you a shot, or did you want to
address this?

SPEAKER: Yes. It's my
understanding that the offset policy is about
a year away from being fully developed.

MR. ESKIN: I think that we're
trying to move that forward. In fact, we
talked about trying to start the public
discussion on that. It can come in with the
WIP but then we backed off because of the task
force and we wanted to see how the General
Assembly responded to that. So we will
probably start getting something out in the
spring.

MR. AARON: A draft.

MR. ESKIN: Yes, a discussion piece.

MR. AARON: You reached a mutual
guidance for details in connection to local
jurisdictions and that's [inaudible] in the
WIP which is great news. Is there any case
when permits have not yet had a short local
time period and then it's expired for several
years? Any assurances you can provide that
they'll all be complete and approved by
December 31st, 2012?

MR. ESKIN: I would be willing to put it in the WIP having milestones, specific dates. We have talked about that with EPA. I don't remember the exact dates so I don't want to commit here but they have insisted as part of their evaluation of our draft WIP and our milestones that we commit to firm dates and they will be in the milestones in WIP.

MR. AARON: Thank you for your patience.

MR. MARK McGINNIS: Mark McGinnis, farmer. I just would like to say about the issue of trades. Possibly all of the ag industry, when they come up with these extra above and beyond what they need, that we save them for farmers. So if a farmeer has a spill, we could use that all for them and let the urban and septic take care of their own and come up with their -- [inaudible] make fining them to do the infrastructure.
MR. RHODERICK: Yes. Remember, this is a voluntary component. Unless you agree to let us come out and do an assessment and we can advise you whether you have credits that might be salable and then it's still your decision totally if you want to sell them or sue them, you know. It's -- so it's -- nobody's coming out and saying you've got to get the [inaudible] you got to make these things available. That's not what it's about.

MR. ESKIN: There is also an assumption in your question that I think is important to address. We're not going to be tracking things at the level of an individual spill for a farm or for a wastewater treatment plant with a broken pipe or something like that. Basically, that's not an ongoing road. That's something that will be fixed.

That's not to say that there won't be an enforcement action but it's not going to be a part of the WIP per se. Basically, we're
looking longer term where we are on loads. So you would not be debited, if you will.

With respect to the WIP for a spill on your farm, MDE might be out or conservationists might be out to see if they can fix it, but it's not really going into those calculations. It's just too insignificant, it's ephemeral. That's not what we're asking. We just can't deal with those.

So I just want to -- it's not Big Brother here watching, you know, every ounce of nutrients. These are broad planning targets and, you know, we're talking at the basin level, we'll get to the state. So they are, you know, broad-based plans.

SPEAKER: Did the variables account for it?

MR. ESKIN: It's decibel dust. It's lost in the noise of, you know, the change in rainfall you get each year and the slight
variation of the limitation efficiency and the soil, it's just minor.

SPEAKER: Except in the case of the --

MR. ESKIN: Locally, it would have little effect depending on size. But in terms of the baywide, that's not going to be tracked.

SPEAKER: But somehow it should be monitored somehow because if you go back and look at the track record of these treatment plants and they're continually and continually having overflows, having spills: 100,000, one million, two million, 200,000. It's constant.

MR. ESKIN: And it does get captured. There's something called a calibration the bay program does with the model. The model says you should have -- at this time of the year in this location, you should have this amount of concentration of nutrients in the water. That is the place
where we monitor and then we compare the model projections to the monitored data. So it's a ground-truthing for the model and they make it match up.

And the reason they do that is that there are increments, small loads, you know, you can't capture them individually, but in MAST you capture them through calibration. So that does happen. It's not going to capture that particular one, but if you assume that the spills are random and distributed in body, random and distributed in space, then you will in fact be capturing them through the calibration check.

MR. KLINGELHOFETZ: Bill Klingelhofetz. I had a question about how you capture the gaseous nitrogen that comes off of the sewerage treatment plants.

MR. ESKIN: You mean methane or ammonia or what?

MR. KLINGELHOFETZ: Methane,
ammonia. There could be several forms of nitrogen that come off in a gaseous state.

MR. ESKIN: Yes. Okay. Let's take a step back. A little chemistry. The forms of nitrogen that we're concerned about is three major forms. There is ammonia, there's nitrate and there's nitrite. Those are the forms that are biologically active.

When it goes into the wastewater treatment plant, it's enhanced nutrient removal basically through a bunch of reactions that happen because of bacteria. First without oxygen and with oxygen they change that ammonia, nitrate and nitrite into N2 gas. That is the -- 80 percent of our atmosphere is this N2 gas and that is not biologically active.

So that is the whole reason why this is so efficient, it works. It takes forms that cause problems and converts them into a form that's essentially inert. It doesn't
interact with anything.

MR. KLINSELHOFETZ: But nitrogen changes forms so many times that if you saturate something, it's not going to stay in the same form.

MR. ESKIN: Well, once it's an N2 gas, the primary way that's going to get back into nitrates, is just the lightning, because when the lightning heats it up it gets combustion, and the oxygen in the atmosphere combines with the nitrogen in the atmosphere to create this N2.

The other forms, that happens, say power plant, that is the whole purpose of the Healthy Air Act is to capture that nitrogen before it leaves the stack so we're not adding to the nitrogen in the atmosphere. Because not only is that bad for the bay, but that's one of the smog formers.

So that is why, under the Clean Air Act, we're also trying to control nitrogen.
And methane is a greenhouse gas so it has nothing to do with the bay.

So bottom line is biologically, biologically active forms in a wastewater treatment plant are converted into biologically inactive, harmless form. And that's the whole purpose of that processing, to take a chemical that's bad in excess and convert it to something that doesn't have an impact.

Thank you all for taking the time to participate in this process.

(Proceedings concluded at 8:42 p.m.)
STATE OF MARYLAND

HOWARD COUNTY

I, Dawn Michele Hyde, a Notary Public of the State of Maryland, Howard County, do hereby certify that the above-captioned proceeding took place before me at the time and place herein set out.

I further certify that the proceeding was recorded stenographically by me and this transcript is a true record of the proceedings.

I further certify that I am not of counsel to any of the parties, nor an employee of counsel, nor related to any of the parties, nor in any way interested in the outcome of the action.

As witness my hand and seal this 1st day of March, 2012.

Dawn M. Hyde

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The above meeting was held on
Thursday, March 1st, 2012 at Baltimore County
Agricultural Center, 1114 Shawan Road,
Cockeysville, Maryland 21030, commencing at
6:30 p.m., and was reported by Dawn Hyde, a
notary public.
ATTENDEES:

MR. RICHARD ESKIN
Director of Science Services Administration
Maryland Department of the Environment

MR. JOHN RHODERICK
Administrator
Maryland Department of Agriculture

PROCEDINGS

* * * *

MR. ESKIN: Okay. My name is Richard Eskin, director of science services at the Maryland Department of the Environment and I am MDE's lead on the Bay TMDL and Watershed Implementation Plan.

This evening I am going to give you a quick rundown of sort of where we are and what Phase II is, what is in the document. We're currently in the public review period for the Phase II WIP and so we are here to answer questions that could help you better understand the WIP document itself, help you prepare your comments for submission if you're planning to do that, and then just help you to understand the general process.

When I am done, John Rhoderick will sort of take the agricultural side, what they have done, the process they have gone through and where everything is now. And then we will open it up to a question and answer period.

So why don't I jump right on in. I would like to begin by acknowledging the Town Creek Foundation. They have given funding to the Hughes Agro-Ecology Center, Hughes Center for Agro-Ecology who organized this, did all the logistics. Without their help, we could not have done the job that we did in getting the word out to folks. I know some people will still be dissatisfied but we have really made a major effort and we really appreciate the help of both the Town Creek Foundation and the Agro-Ecology Center.

I'm going to go over some basics because people may be new to this process. I want to make sure everybody at least has the bare bones about it and then I'll get into a little bit more detail, but I'll go through fairly quickly. You can stop to ask questions or ask questions after the presentation if you need to.

So let's begin with the TMDL. You know, well, everybody knows, I think -- well, people in Maryland at least know that every summer we have a large dead zone in the bay and that's, in our jargon, that means the bay is impaired, it does not meet its water quality standards.

When that happens, we do a TMDL, Total Maximum Daily Load. That is an estimate of the maximum amount of pollutant that can enter a water body and still let that water body meet water quality standards.

The concept is fairly simple. Total load equals the waste load allocation which is the loads of pollution coming from all the regulated sources. So if it needs a permit, it's a regulated source, it's part of the waste load allocation.

Load allocation is basically everything else. That's the farms, it's the lawns, it's the atmosphere deposition that all
eventually gets down to the bay.

There is a margin of safety but that's what we call implicit. It's built in. In any monitoring exercise, you need to make a certain number of assumptions and we just made conservative assumptions rather than setting apart an exclusive margin of safety.

We have been working on the bay restoration since 1983 when the first watershed water bay agreement was signed. We have made a lot of progress, come a long way. We've done a lot of good things. The progress is slow, basically all the good things we do are balanced by continuing growth and it's been quite a while.

In 2000, there was a baywide agreement that if the bay wasn't restored in ten years, we would move to a TMDL. We didn't restore the bay, so now we're moving into a more regulatory framework. The TMDL itself is required by the Clean Water Act, and the TMDL is not directly enforceable itself, but permits that are written must be consistent with the TMDL. So the TMDL essentially allocates loads to sources and then the permits for those sources need to reflect that. So we moved into a more regulatory framework just with the TMDL itself.

As part of the TMDL, EPA requirements is something called reasonable assurance, particularly for the load allocation. For the waste load allocation where you have permits that is enforceable, you write permits, you have enforcement, inspections and so forth, the load allocation it's not quite such a clear guarantee that what you need to do will get done.

So as part of that, EPA says, "Well, if you have a plan and that plan is public and it's transparent and we can hold you to that plan, then that provides better reasonable assurance that the TMDL will actually be implemented." So it calls to do an implementation plan.

We've done that, we've put it out on our Web site. It's available. And again, I'm going to say this a few times, we are now in the public review period and we want your comments by March 9th.

Of course, you have a plan, you want to know if you're sticking to the plan, so tracking and evaluating progress is really important. For those of you from local governments, developing, tracking and recording systems is very important. We want to give you credit for everything you have done, for every dollar you have spent, but we can't give you that credit if we don't know about it.

So you need to develop those systems to track what you are doing so it can be reported to us so it gets reflected in our progress reports to EPA.

The other thing that's new in this accountability framework are these two-year milestones. What we used to do before, as I sort of alluded to, is in 2000 you would get this agreement: We're going to fix the bay in ten years, and you don't really check on your progress or do anything about it for the first eight. And then 2008, you realize, uh-oh, we're not going to make it.

Well, it was determined that we're not going to do that anymore. So basically every two years we'll check on our progress. And what happens if we're not making progress, well, EPA has assured us that there will be federal consequences. What might those be? Well, they can open up the permits. That's where they have got their major control. So let's say that we have a minor wastewater treatment plant and it's discharging at 18 milligrams per liter
secondary treatment. They can say you will retrofit that plant and make it discharge at only three milligrams per liter and we really don't care where you get the money, you are required to do this.

Which is why the Watershed Implementation Plan is so important because rather than having EPA tell us what to do, the Watershed Implementation Plan allows us to tell EPA how we're going to achieve our allocations.

EPA could expand coverage. This might be requiring storm water permits. Not every county has a storm water permit. Although Baltimore County certainly does but smaller counties don't. EPA could say, Maryland, you're not making enough progress, we are going to require storm water permits across all of the counties.

They can just do more enforcement which is sort of, you know, a lesser level of consequence. And, of course, they can just give enhanced oversight which means they're constantly asking us to do better and more and nitpicking with everything.

So what have we done as far as this Phase II process. I should just take a step back for those who are new to this. We did Phase I in 2010 and we submitted the Phase I Water Implementation Plan to EPA in December of 2010. That was a statewide program.

The big difference here is that we have gone into a lot more detail, more geographic specificity and far more input from local teams from counties, municipalities, than we had in Phase I.

To get that in, we set up local teams. Each one had a state liaison, and local government officials put the teams together, mainly involved public citizens -- private citizens. And they talked about what they wanted to do and got the plan to us. We developed a tool to help them put that plan together called MAST, or Maryland Assessment and Scenario Tool.

Think of MAST as sort of a spreadsheet for doing restoration strategy. It essentially lists all of the best management practices, lists all the land uses. And then you put in what percentage of that land use you want to implement with a given BMP and then it adds it all up for you and tells you how much loads you have used, what your loads are.

So you can do what-ifs. What if we used more of this practice and less of that. What if we used more of that and less of this, and see how it adds up.

MAST is a helpful tool. What MAST actually does is simulate EPA's watershed model, it doesn't simulate the watershed itself. Rather, we're trying to make it like a watershed model because that's the final decision maker. What the watershed model says is what you get in terms of credit.

We used to have to use spreadsheets and we'd submit something for the watershed model run and it would come back and say, oh, you're way off and then -- it takes a week each time to do this. So you can imagine you didn't have many opportunities to really tweak your strategies. My department alone ran more than 200 MAST scenarios in order to help develop the strategies.

So we have done that. Actually, we also gave local government folks hands-on training at MDE. We had a computer training group. They actually came in, three or four sessions. The person who wrote the program did the training to help them understand what we needed to be done.

We had to develop 2017, 2025 strategies. That's done. That was a submission that we gave to EPA about a month.
 ago, and now we're in the public review and  
revision period. March -- it runs through  
March 9th. And basically then between  
March 9th and March 30th, we're going to  
review your comments, take them into account,  
make what changes we need to make in the final  
version of the implementation plan and submit  
it to EPA on March 30th.  
What is in the plan? Section one  
has the target loads by state, statewide, and  
by sector, and there's an appendix attached  
that does it by basin.  
We have five major basins and that's  
going to be our reporting level to EPA. The  
five basins are the Potomac, the Patuxent, the  
Susquehanna -- we just have a little bit of  
the Susquehanna basin in Maryland -- on the  
Western Shore and the Eastern Shore.  
Now, although we will be reporting  
to EPA at the basin level, we will continue  
working with the counties at the county level  

EPA said no, we can't do that  
anymore. From now on, you know, whatever  
loads are not already captured in the TMDL,  
they are new loads and they need to be offset.  
So if you're going to change the  
land use, say, by developing an area, you're  
going to increase the load by 50 pounds, you  
have to find 50 pounds somewhere else that  
you're going to reduce to offset the new load.  
And there was some discussion of cost and  
funding.  
In Section II, that's all about the  
process we have with the local teams, with the  
local governments. The meetings we have, how  
we work with them on MAST and so forth.  
Section III is actually what we got  
back from the local teams. So if you're from  
Cecil or Harford or Baltimore, you could see  
what your team sent in to MDE. And then we  
talk a little about where we're going in  
the future.  

There's lots of supporting  
information in the appendices. I am not going  
to go through them all but there's a lot of  
information that is available online for you  
to look at.  
By the way, if you haven't seen it  
yet -- how many have looked at Phase II WIP,  
actually? Wow, that is -- I am impressed.  
I'm impressed. You know it's available on our  
Web site. You go to our home page, there's a  
Water Implementation Plan banner, you click on  
that and you can get to it from there.  
We have set time frames to getting  
this all done. 2017 to get to 60 percent of  
the implementation, 2025 to do it all. When  
we had started out, we wanted to get to 70  
percent of the implementation in 2017. People  
said no, that is impossible. It's not fair,  
and we listened. And so we backed off. So  
now Maryland has the same basic pace as all of  
the other jurisdictions in the bay watershed.
We are doing very well in terms of our overall reductions because of the Bay Restoration Fund. That has been in place for quite a number of years now. We have all of our processes developed. And upgrading a wastewater treatment plant is a big project and it takes time. You do a feasibility study, you do an engineering study, you do a design study and you get contracts and it takes a long time.

Because we have been working on this for quite a while, we are sort of ahead of the game and so they're carrying us on some of the things that may go a little slower. But nevertheless, we cannot make it on wastewater treatment plants alone.

Agriculture is really important and they're doing a great job to keep up with us. And then we need to get storm water and septic systems going. But we're looking for and expect incremental progress across all of the sectors.

Scale. I touched on this already. We have the five basins. That is the level at which we were reporting to EPA. We started working and we're still going to continue to work in many respects at the county scale because that's really where the responsibility resides.

I mean, let's face it, there is no watershed that has a budget. Watersheds don't have budgets. They don't have planners. It's counties, the governmental units that have budgets and the ability to implement stuff. So that is really where we need to work. And we are going to continue to work at that scale with individual counties and municipal counties as appropriate.

This accounting for growth issue is going be a difficult one. We know that. There was a task force, a legislative task force, that met before session started.

Colloquially, it was known as the septic task force. Officially it was the sustainability and wastewater disposal task force. They came up with a fairly brief but very excellent report of recommendations regarding septic systems and the Bay Restoration Fund and so forth.

So we put aside our accounting-for-growth policy for a little bit to see what kind of response the task force report got from the General Assembly to see what they do. Because we don't want to try and step on their toes and, you know, get in each other's way. So we will let them do their work, we will see where we stand and then we'll pick up the accounting-for-growth policy after the session. I think that is pretty much it.

Filling the gap. Not all counties submitted to us the complete strategy. They didn't give us a strategy that fully met their allocation to cover all the reductions that were needed. So in those cases, MDE had to give a complete strategy to EPA. So we needed to fill in the gap and that's what we did.

So we started, whatever we got from the local teams we kept that. We used everything they gave us, but if we needed more, then we added more strategies in this order: Anything requiring a permit because obviously that's going to have to be done regardless; any broad programmatic controls like urban nutrient management. They're cost effective, that we think anybody would want to do.

And then finally, we added other best management practices using the same approach we used to development the allocation.

There's still an opportunity to come back. If anybody, any county, any municipality didn't submit complete strategy.
you can come back and do it your way. I mean, basically what you're faced with is two options. You can give us strategy to do it your way or you can do it our way and we fill in the gaps. So there is still opportunities to do that.

So the bottom line is these are pound reductions. We have got 11 and a half million pound reduction from 2010. That's 22 percent reduction load of the 2010 load.

Phosphorus, just under 500,000 pounds, and 26 million pounds of sediment, and you can see the percentage there as well.

MR. KLINGELHOFETZ: Excuse me, where do these numbers come from? Is that from nutrient management or...?

MR. ESKIN: The percent we can -- we obviously have to start from where are we in 2010 and that is a combination of model data and monitoring data. So we do a progress run from the wastewater treatment plants, they measure it at the end of the pipe. So we know exactly what they have done. So that is the point source numbers for 2010.

For nonpoint source, things that don't come out of the pipe like the agricultural things, we used the bay model, and the implementation, EMPs that were reported to us, that is what goes into the model. And then the model combines the point and nonpoint source to say here's where we are in 2010.

The other numbers are just basically a subtraction from what the bay model -- where the bay model is saying we need to get. 2010 is telling us where we are now, our allocations were given to us by EPA. The difference is the pound reduction that we need to accomplish.

Future steps. Okay. As I said, there is still an opportunity to refine your plans, to modify it, to fill out gaps that you weren't able to do earlier. After June of 2012, subsequent changes will be incorporated through an adaptive management process. And I can't tell you right now exactly how that will work but I do know that if you said you could guarantee me that these were the things that were put in the ground, and even though we said you've got to do that, you did this and we got the same amount of nutrient reduction, we're not going to turn it away.

Tracking and reporting. We're hoping to work with local jurisdictions basically on a quarterly basis. We don't want to come to 2013 and then somebody has to say, oh, you didn't make sufficient progress, we're going to do this to you. We don't want that to happen. We want to keep the lines of communication open so everybody knows what to expect.

And that's why we work with jurisdictions, the model is going to be fixed -- well, I shouldn't say fixed, upgraded, refined, improved in 2017 and we would like to get better information, more accurate information on septic systems, better understanding of land use and so forth so that everybody has even more confidence in the model.

The remaining schedule. On January 6th we submitted the state milestones to EPA. We brought them out January 25th to March 30th in the public comment period. March 30th to June 30th, basically that is when you can make the final refinements, and July 2nd it's all over and I can go on vacation. There you go.

Now John Rhoderick will come up and tell you about the other half of the process.

MR. RHODERICK: Good evening. I'm John Rhoderick. I am with the Maryland Department of Agriculture, and similar to Rich, I was put in a position of facilitating,
developing the agricultural portion of the
strategy.
So why is that being pulled out
separately? I mean, if you think about it
caseually, this is a chair. There's a
couple of components. One being wastewater
load, one being the septic load, the other
being the urban load from storm water, and
then the ag load.
So why do we pull ag a little
differently? Well, it has to do with having
been working with ag and implementing
practices.
For the most part, the other three
components, when we talk about wastewater,
urban and septic, that's something that
happens, as you say, somewhat at the county
level and the state level. When you talk
about agriculture, you're talking about
programs and funding and implementation that
occurs in a little different setting.
So we looked at that component and
said because there is people that work
specifically with the ag community, those are
the people we need to get in the room because
those are the people that are boots on the
ground and they know and understand what is
going on out there.
So what we did was in parallel with
the urban component, we set up ag work groups
in each county and we had a series of
meetings. And those work groups were not just
ag people. There were county planners there,
they had public works people, et cetera.
But we really focused on bringing in
people, personally inviting them there that
were people that worked with the farm
community and with landowners. Because those
are the people that could tell us going
forward what there was available out there to
still do, as well as what they already worked
on. So they knew from the farm community what
the options were going forward that we thought
we could get done. So with that in mind...
First I want to start with just kind
of a background slide, and I do this
purposefully because there is a lot of
information out there that gets ramped up in
newspapers and I want to again remind
everybody, we're in Maryland, and in Maryland
agriculture is not the dominant load.
This is an urban state. Maryland is
a more urban state than agricultural, so when
we look at it from that perspective, about 35
percent of the load going into the bay from
Maryland is agriculture.
However, having said that, as you
can see, depending on what watershed we're in,
agriculture can be a very dominant player,
especially on the Eastern Shore, Choptank and
other regions.
But here specifically in Baltimore
County, you look at the Patapsco/Back River,
said -- even though EPA asks for 2025, our governor said I want this done by 2020. I want everything implemented and I want to see what it's going to take.

And that was a valuable exercise, as you'll see a little later. But 2020 was our target to get all the stuff implemented in the ground to meet the goals.

Since that time, as I said, we have had -- we extended what we did from those work groups out to the 2025 plan. But we also developed within that two-year milestones, as Rich alluded to, because that is what we have to have. So we had those as well.

So here's what we have. We have these ag work groups. We actually had two sets of meetings in each county so -- was it 48 meetings? We had two sets of goals. I'll talk about that in a second because we got started early before we had final numbers.

So we started with one set of numbers, and then when the new model came out, we had at least a framework of how we were going to do it and we used the new model numbers to come up with our final plan.

And we had two sets of tools we used at that time and we worked off of two different strategies. The first time we did this, again because we didn't have the final numbers, we sat down and said, okay, the caveat here is by 2020, given the existing resources we have and the existing people in place, whether it be the conservation reserve program, EQUIP, whatever programs we work with farmers, by 2020 how much more can we get done, given existing resources.

The second time we came -- because now we had new numbers and a new model and clearly it said we had to do more, we came up with what we call the aggressive strategy, a strategy that would not get accomplished with existing resources and programs but it would meet the goal. So that is what we were able to do is look at it from two perspectives, and that was very important.

Okay. The other thing is, as Rich mentioned, is we're looking at, or on the urban side, for counties to develop some kind of tracking system to really get a handle on what they have out there. From the ag perspective, we were very fortunate. We have conservation tracker, which has been in place for a few years, and it's allowed us to get a much better handle on what is already on the ground and that helps us going forward to know how much we have done.

And sitting with the right people in the room, they can say, well, given that, I see no additional opportunities for this kind of management practice, or I see this other management practice has got a lot of opportunity.

Okay. So this is from, some of you that have been in the room and played with this, this is from the first meeting, and as Rich said, we didn't have much to go on but we went with the simple spreadsheet. Not the best idea but it's what we had at the time.

So what we did is we took on this slide -- I know it's a little hard to read but you can probably see it in your information. These are the only BMPs that the model sees for agriculture.

We do a lot more for farmers but in the model world, which is what we're dealing with for now, there is only certain BMPs the model reads. So we started with these because that is all we're going to get credit for in the model.

So we went through and very simply we had to model some information about what the load reductions for nitrogen and
phosphorus were for each. We could put in information county by county about how much they had done currently, and then what we did is very simply go out in the next column and say okay, if for barnyard runoff control, which is actually recovery, if you've already done 50 barns in this county, how many additional opportunities are out there? How many additional farms or barns can we go out and put roof guttering on?

So it's a simple exercise of doing that and we could calculate load reductions based on that and we had our goal and so basically we saw if we could meet it. And that's how we did the first set of 24 meetings, county by county. And again, that was based on existing resources and existing programs.

So here is where we ended up. The old bay model prior to August, the old bay model said for agriculture in Maryland, the raw load, if you were doing nothing, if we weren't preventing anything from going into the bay, the raw load for agriculture would be 22 million pounds for Maryland going into the bay.

However, we have all these conservation practices and by tracking, conservation tracker, and they have been submitted. So rather than 22 million pounds going into the bay, the current load going into the bay calculated in the model is 17.7.

So we're mitigating on average an annual rate of about 9 million pounds of potential pollutants that would be going into the bay through the conservation practices we've installed to date.

So this is the load we had and it was, that's great, that's 17 million pounds. But we need a plan to get you down to 13.7. According to the old model, if we could get the agricultural load down to that, we've met our obligation for agriculture. So we did that.

As you can see, this is where we ended up. We didn't quite get there. So saying based on the existing resources we have, which would be the number of people out there working with the farm community, as well as the programs we have, and given the fact that we have to do this by 2020, this is how far we could get.

And this was a valuable piece of information because it allowed us to step back and look at this and say, well, you know, it's going to take more, you know, we can get some significant reductions but it's not sufficient to meet the model.

So then in August, as I mentioned, we got the new bay model numbers and they were more aggressive. You'll see those in a minute. And they also changed significantly because the new model -- one model to the next changes significantly.

At that time, as Rich mentioned, the Department of Environment gave us a new tool called MAST, and this was the agricultural piece of it. We liked this a lot because unlike that spreadsheet you saw, the spreadsheet, as Rich said, gives you false information because it's not as simple on a model as putting additional BMPs. It doesn't work like that in the model.

In a generic term, if I had an acre of land out there and I said I am going to do nutrient management on it, that's one BMP. So in the model it says okay. Then I say, I am going to do cover crops. The model doesn't give me -- it doesn't add one load reduction to the other. You get less and less. It's a decreasing amount, so that is why a spreadsheet doesn't work.

MS. HORSEY: It's a train.

MR. RHODERICK: A train. Thank you.
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| It's called a treatment train and I know it's getting into the weeds but that is why we like this because for the first time it's giving us information about how the model works. So we can sit here and plug BMPs in on, as Rich says, very specific land uses and we could see, as we continued to put more and more of the same -- BMPs on the same land, we didn't get, you know, reductions didn't go linear on the -- they kind of tapered off. And that was good because that helped us see exactly how the model works. So we used this. We were the first ones out of the gate using it. Not all the things worked on it, so while this agriculture piece worked, the animals and the no-transport didn't, but we still went about our business of looking at BMPs that were part of that, we just couldn't get a lead from this on where we were. So here is where we ended up. Now, the interesting thing is I know the other slide you didn't really take notes, so look at the numbers. They're completely different. This is the new model. So instead of saying under the old model where they said the raw load for agriculture was 22 million pounds, this new model says 28 million pounds. Well, that's a big difference. Similarly, our progress. The old model says you reduced that load down to 17.7 million pounds. New model says, whoops, you're not -- you haven't gotten that far. So this is why we ended up with new goals that were much more aggressive. Luckily, as you can see, this was the goal we had to get to under the new model and this is where we ended up. We ended up just under. So we have a strategy in place in the WIP that says for agriculture statewide we can meet that. And this is what it looks like for phosphorus. This was interesting for us as well because, as you can see, nitrogen was much more difficult to meet. Phosphorus, we actual met it and exceeded it. Now, having said that, we since have learned there is -- and you'll hear more about it in the points, but there is an issue with the model for phosphorus so we're not jumping up and down about this. This is great, but we think there is a problem in the model and we wouldn't want to suggest that we're way under at this point. So this is what it looks like, as Rich said, how we will be presenting it to EPA, we did present to EPA. They want to see it by basin. This is how it looks. So by basin, you know, here is where we were in 2009 -- I apologize, Rich is using 2010, an update. But in 2009, here is where we were, and the red is where we tried to get to in our plans and the green is where we actually ended up. As you can see, it varies from basin to basin. Eastern Shore is much more difficult to get there. Even with the aggressive strategy, we're just a little over. Potomac River, we're well under and you can see these are the two we want to focus on because this is where the major load is, according to the model. It's not the Western Shore, Susquehanna and Patuxent, but major loads are here. But overall, that equals the state plan that meets the goal. And then for phosphorus, the interesting part is look at the Eastern Shore. We had a tough time making it for nitrogen but we got well under for phosphorus. So again, this is what the model -- at least the information from the model and that's why I think we're a little leery because this phosphorus number, because as
most of you who read the paper, we believe there's a lot more phosphorus on the shore. So to suggest suddenly that, you know, it's real easy to meet it doesn't seem to make logical sense. This is the statewide, this is broken down, as you said, for 2013 where our goals are and will be by then, 2017 and 2025. Some of the, you know, and I apologize, we don't have enough information up, it's already too busy. But if you look at stuff like forest buffers, I mean, people will look at this number and say this isn't -- from a statewide perspective, this isn't a lot of new acres. You have to remember what is missing from here is where we've come from. We've done over 26,000 acres of forest buffers to date. So we have done some of the easy acres. It's much tougher to get these additional BMPs for stuff like forest buffers because the opportunities are not there. So you have to understand, on some of these, where we are to date versus what the chart's saying.

MR. AARON: Quick question. There are a couple of places where the 2013 milestones are higher than the 2017 goal and then go -- like at the very top line, 5,280 acres to 3,168 to 5,280. I assume that's just a --

MR. RHODERICK: Yes, that's a typo. MR. AARON: In all cases it should increase?

MR. RHODERICK: Yes, they should be increasing and we have had a couple of those pop up before and I apologize.

MR. AARON: Just making sure I understood how it's supposed to work.

MR. RHODERICK: They should all be ramping up. Okay. And this is obviously a second page. And as you can see, it takes two pages to show all these BMPs because for agriculture, we're looking at a suite of practices and obviously, again, this is not everything we do that has work quality benefits for agriculture, but this is some of what the model will read. So we're limited in that capacity.

Okay. This slide we liked because this, to us, I believe, is the value of those local meetings. When I talked about we had our first set of meetings, that was over here. For the majority of it, these were probably the major practices we saw up on the screen.

But if you look at the chart next to it, look how it shifts. Look at my precision/decision ag. When we talked about an aggressive strategy versus existing resources, it changes the dynamics of where we're going to get these reductions and how we're going to get these reductions.

So for us, it targets back to us on how we need to focus our programs and our resources if we're going to meet the goals.

Okay. WIP Modeling Summary.

Basically where we ended up, as I said, is all 23 counties did submit an ag strategy. An ag strategy for all 23 counties, and as of 12 o'clock tomorrow they will be up and available at the MDA Web site. If you go under conservation, you can view any county, there is a map. You can pop on the map and see any county and see their plan just like I displayed it there for 2013, 2017, 2025 plan.

Okay. As you can see, we haven't done that other approach, which was great. We did submit them to the bay program. As you see, it took about three times to submit them because -- a number of things: first time submitting information like this. Second one was -- remember, they just came out with this model in August and they were under a deadline to have it out so that we could use it and
submit plans by the new year. The model never really had proper QA/QC so there were some issues that we had to go through with the bay program in order to get the information in and through the model. And with that in mind, obviously we believe there's some further confirmation that needs to be done about some of the ag information and how the model is handling it. Validation. And this goes to my guys in the audience, Bill and who else is out there? Jim is out there and Eric. When we were using MAST, as I mentioned, we were the guinea pigs. In some cases, as we used it, there were some things in the MAST, as we put BMPs in there, we could sense something wasn't right. It's mimicked in the model and we weren't sure. There were some issues. And since then, we've had to adjust what you were seeing in MAST. So -- and that's been done. Things we're looking at and also

were highlighted by our ag work group, again, because for the first time they were able to look at the model. It was spitting out to us like animal numbers in each county. It couldn't tell us what the model was using for animal numbers.

So the first time we would look at it and say, well, wait a minute -- and I know this happened, I think it was Allegany County and I think it happened in Harford too, their dairy herd or their dairy manure, and there is no cows there in the county, but yet in the model it has got a slurry, it's got a load for manure for dairy.

So there was things like that that popped up, and that is fine. Those are the quirks that we can see and we understand now. We will deal with it.

And this is just again showing you that some counties, as you say, it was not -- MAST, as I just referred to, was not reading correctly. You know, you look at some areas like this where some of the crop, at least, it was off by 177 percent. That is pretty significant but that's fine. It was a plan to help us get there. But for some of the guys to reassure them we're aware of some of those issues that came up.

And again with phosphorus, there was a couple of issues with phosphorus for certain counties.

Okay. Next steps. As I mentioned, we are not alone as we use this tool to get a firsthand glimpse at the model. The other states, again, same thing. So what we have is there has been some questions and so EPA set up work groups. There is an ag work group, there's an urban work group. Urban work group has a list of probably 23 things they want to look at. Ag, we have a list of about 40.

And these things, what they have done is they have set up some subcommittees

already, and I apologize, that should be 2012 not '13. But for this year, these three subcommittees are going to look at specific things about the model and some of our BMPs. And so the first work group that's been set up is the nutrient management work group and they're looking at a couple of these. I know like what was near and dear to us was this one that says nursery BMPs, for Bill and a couple of other people. When we looked at the model, and we do a lot of things with nurseries to mitigate their nutrients, but according to the model, there's only one BMP we could use and that was water capture and reuse.

And we kept saying there's five or six other things related to nutrient management and nurseries, according to the model. So that is one thing that we're looking at.

The other one's down here. When we
1. brought out the paper for cover crops and we use, you know, forage radish, you know, we had a lot of cover crops this year was forage radish. We don't get credit for model numbers at this time. So again, we know it has work quality benefits. We've got to update the model a little.

2. Conservation tillage, the same thing. There's a couple of things up here that we want to make sure are working correctly so we get our full credit.

3. Now, jumping, as Rich did, to this accounting for growth. This is a new component of EPA's requirement because, as Rich said, for every pound of new load that would go in the bay, it's got to be offset.

4. We were basically capped across -- every sector is capped. So if you're going to put another pound in the bay, somebody's got to do something above and beyond what they're required to do under the TMDL.

5. Not only do you have to meet the load reduction, but somebody's got to do something above and beyond if you are going to add some more load.

6. So with that in mind, we do have a training program. It's been up and running for a while. The ag portion of it, you know, is a component that we're looking at as the possibility to provide those additional load reductions above and beyond the TMDL for when new development comes in or when new discharges want to discharge and need a permit. We have set up a process to work with farmers to identify if they have offset potentials and we can do verification, certification of monitoring.

7. And again, this is voluntary on the farm community. Let me assure you, this is not we're coming out looking for these. They're only if you guys want to participate. Last year, we had over 5,000 hits on our Web site. If you're not familiar with it, it's mdnutrienttrading.org and you go on, we had 160 accounts opened. We did about 80 farm assessments last year. We'll probably do a little over 200 this year to -- for looking for offset potentials and we've hired some additional staff to help with that.

8. A few counties recognized this -- I'm talking about the planning, the planners and the counties and county commissioners. I'll use Howard County as an example, it's very close, where they actually went to the soil conservation district and they said we understand what's coming here but as a developer comes in our planning office, we're going to tell him he has got to find offsets for his load. So how do we do it?

9. So they've actually contracted with the district to go out and work with the farm community and start looking for some of these offsets. So that as a developer comes in, they would have a one-stop shop to say, okay, these are the offsets you need, and go to the conservation district, they identify some farmers that you may want to talk to that may provide this for you, and you will pay for it, by the way. And again, we know we have some grants that we'll try to help out with that as well.

10. I am just going to end up with this, which brings us back to where Rich was. Again, for agriculture, as you saw, we meet the statewide targets. We are well under for phosphorus but I am not holding on to that, you know. I am standing on that one.

11. Here's what it looks like statewide. I mean, right here, 51 million pounds in 2009, according to the model, is what we were dumping in the bay, all sectors in Maryland. We had to come up with a plan to get us down to 41.7. What we came up with was a statewide plan through all sectors that got us there.
I'm sorry, the other way around, 41.1 from 41.010.

For ag nitrogen, in '09 we were dumping 19.7 million pounds in. We needed a plan to get down to 15.2 and our plan takes us to 15.1. And you can see for both phosphorus and nitrogen and you can see all the other sectors as well.

So at that point, Rich and I are going to entertain questions, and I think there's a protocol.

MR. AARON: My name's Mike Aaron. I've got a couple. So the statewide WIP is done on the basin level, the county WIPs are all done on county levels. You addressed that a little bit. Could you just address it a little more.

MR. RHODERICK: The bay model was basically started in Hillhurst[phonetic] for a 64,000-mile-square area. It does very well at large geographic areas. When we started using it and broke it down to the county level, it was not working correctly. And so EPA saw that as well so basically said we want you to lead -- and we agreed -- that it works about -- the farthest you can take the model down to is basin level and so that is why we submitted data at the basin level. But beyond holding, as you say, especially for the districts and agriculture, we're holding, you know, our limitations are based on the county level, our observations were at the county level.

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MR. THARPE: My name is Bill Tharpe, County Soil Conservation District. John, my question is your statement about how the MAST program does not account directly when you move away different practices. We do practices that, you know, that really overlap one another. So are we really getting true credit for all the practices that we're doing?

The other part of that question is, in the bay model, have some of the items that generated the proper reduction in credit been adjusted, specifically one that Farm Bureau brought up was, you know, yield potential out of using old data which, you know, should be higher which actually relates to more nutrient uptake. So that -- those -- are we getting true reduction credits that ag should be getting?

MR. ESKIN: On the first one, when we see two BMPs, let's say you had two BMPs, they each had 20 percent efficiency, used independently. Well, you put that first BMP in and it's going to get that whole 20 percent but now it's already taken away all of the easily remediated nutrients, if you will.

So you add on the second one, you had that first one there and it took care of part of that per-acre load, the second one is going to be somewhat less efficient. The third one is going to be somewhat less efficient than if used independently, and that sequencing interaction between the BMPs is part of what is in the model and that's why spreadsheets don't work too well. But this MAST that simulates the model comes a lot closer to capturing the integrate efficiency, if you will, of that treatment train.

MR. THARPE: But they're all getting credit, though, right?

MR. ESKIN: They're all getting credit, but as you put more and more on, and in fact I think that you learned something about either one makes a difference, so if you do nutrient management before you do precision agriculture, you got very little additional. But if you reversed it, you did somewhat better.

MR. RHODERICK: It's like Rich explained it. The first BMP is 20 percent, it means you will only get 80 percent remaining. Now you put 20 percent on 80 percent...
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remaining, so it decreases the value.
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The second point about, and we did
gloss over this and I apologize. As you saw,
there is some issues up there and we're trying
to prioritize them. We are going to hold the
model where it is at this point, but we are
working the next three years through this
whole list of issues. They in 2015 will be
updating the model based on all these issues.

MS. HORSEY: '17.

MR. RHODERICK: Well, it won't come
out to '17 but they're going to do it in '15
but '17 is when you'll see the corrections.
So we all know we have work to do so nobody is
backing off. We may be further along, we may
find, by '17 based on some of these issues.

MR. ESKIN: And there are some
things that can happen now. If there's
practices that you know are in the ground that
weren't accounted for, if they were put in the
ground after January 2006, that's not a model
problem, that is a data problem, that we
didn't give the model accurate information.

But the kinds of changes where you
have to recalibrate the model, like changes in
land use, that is going to have to wait. And
the reason we're closing it off in 2015 is
because all of these problems, and as you
start using it, you find more and more errors,
we don't have time to fix them so we're going
to allow that two years for the communication,
the dialogue to take place. We can start
using it, as the problems pop up, we can fix
them.

And in fact, MAST has pointed out
many problems with the model, most of which or
many of which were in fact addressed. So
where it didn't require recalibration, EPA
said, oh, yes, you're right. That is a
problem, they went back and fixed it. They
didn't have any better -- MAST, I think, was a
better model than it would have been
otherwise.

MS. FINNEY: Vanessa Finney with the
Maryland Nursery and Landscape Association. I
just want to ask John, how does -- what is the
plan to address the lack of validation of the
nurseries and how do we respond to the plan,
knowing that there's nonvalidated for nursery
or lack of recognition?

MR. RHODERICK: I apologize.
They're on -- I apologize. We had them on a
slide but -- they're on that list of 40, as I
mentioned, for the ag work group, that nursery
you saw will be dealt with this year. There
should be a suite of BMPs such as nutrient
management, cover crop, et cetera, that should
be applied to the land use for nurseries as
well.

MS. FINNEY: Well, how do you
accomplish finding that out? I know there was
a survey but [inaudible].

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COURT REPORTER: I'm sorry, can you
speak up, I can't hear you.

MS. FINNEY: I'm asking about how
the nurseries are going to be able to record
the BMP, they go on record with the BMPs that
they are engaged in. I know MAST did a survey
but the [inaudible] from that survey so is
anything going to become special and reach out
to nursery, or why is -- as a representative
of the industry to do something, myself,
acting as -- be more active in getting back to
you.

MR. RHODERICK: No, both. I
actually talked to the state and so we need to
sit down at every possible opportunity to the
nurser people and get them to understand about
this, you know, about the fact that they have
a load and an obligation in the model they may
not be aware of and, you know, we may need to
provide information, you know.

The easiest thing is to go in and
visit with Bill or with Jim or anybody in the
districts, in the county they're in, to
document what they have done. But as I said,
your limitation right now is 1 BMP load.

MS. FINNEY: Will that change? Will
they open the doors and let [inaudible] have
more to say?

MR. RHODERICK: I hope. I didn't
see the -- when I see that on the schedule.
That's an immediate concern this year.

MR. ESKIN: Just a little bit more
broadly, there is -- EPA recognizes that there
are a lot of BMPs being done that aren't
credited in the model and there's a whole
process through these work groups at the bay
program.

So basically you submit the data
that says, you know, here is what you see in
these four pages published in the peer-review
literature, here is the numbers that they
provide for this BMP, and we think that you
need to look at this and use those numbers or
some combination of those numbers to start
validating these BMPs and providing credit.

And then it gets you to the model,
it gets us to whatever table they use and it
will show us that per acre load or per roll,
whatever it is, per unit load. So that's
happening across the board, both for urban and
agricultural Best Management Practices.

MS. FINNEY: But it's too late to
come in in WIP II?

MR. ESKIN: You can comment on it,
certainly. I mean, in fact, that will be an
excellent idea that you should say we're doing
all these BMPs and they're not being credited
to the model. We think it should be made a
priority. We would estimate that would
account for x percent of the load by pounds,
whatever estimates you want to use and make
your case that, you know, this needs to be
addressed and it's absolutely best to be on
record with that.

MS. FINNEY: Thank you.

MR. LIPPINCOTT: Wally Lippincott.

One of the important things I thought about
first grades put together like being in those
different categories of wastewater treatment,
and urban and ag each having their own goals
separated because we know the national policy
has, you know, kind of indicated other
problems, that's why we have to be addressed
in the TMDL.

But a lot of the folks I work with
have concerns that the offset concept
threatens the viability or continuity or
continuation of agriculture in the state.
Theoretically, you know, more and more
practices, more and more land, good, land
going to the forest and less left for the
[inaudible]. What is your reaction and how
should -- can I help address these people's
concerns?

MR. RHODERICK: We really didn't get
into the whole strategy. I mean, as I
mentioned, I was focused on ag as an offset
option, but if a developer came in as a
component, the county may, you know, say to
him, well, one of the options is we want to
get some of these failing septic tanks
upgraded. If you're willing to pay for those,
in that set of septic, you'll be reducing the
load offsets.

So it's not on the back of
agriculture. I didn't want to leave that
impression. Some other options is the county
may chose alternatively to take one of the
minor wastewater treatment plants and hook it
up to a major, so instead of running, as Rich
said, 18 milligrams per liter, it's now
running 4 milligrams per liter.

Therefore, they have created a
mechanism for additional developers to hook
up, get that power capped and using that
strategy.

So yes, we are focused on, as you say, first meeting our commitment on the TMDL. We want to make sure that we've got enough practices out there to meet our commitment and we [inaudible].

SPEAKER: Richard, how is this going to be regulated? For instance, is it -- the county going to regulate it or is MDE going to regulate? Because what I am seeing is, you know, it's set up, it's like dominoes and like there is a lot of development and stuff, it could take away a lot of best managements on a farm due to flooding and whatnot.

MR. ESKIN: I would not frame it so much as being regulated as being tracked and reported. So, for example, some things come under permits, so the reporting is formal, like wastewater treatment plants, industrial discharges give us every month what's called a discharge monitoring report where they are required legally to report what is happening.

The storm water controls will happen under the storm water permits for the most part.

There is another permit called municipal separate storm sewer system permit, or MS4, and jurisdiction needs to submit an annual report as part of the permit protocols reporting is required.

For the septic systems, a lot of the septic upgrades being made with BRF, Bay Restoration Fund money, and so that is being tracked too because it's being paid for by the state. And then John is using conservation tracker, going around the state to keep track of what the farmers are putting on the land.

So there is a little bit, depending on the particular sector, as to how it's being tracked. But as to where there is a permit, it will be regulated, which means inspected and enforced and where there is not a permit,
broad-based setback requirements of all terrain would be considered a taking and also would be a zoning issue and therefore invalid. What do you have to say about that?

MR. ESKIN: John, I am not aware of that issue or any court decision. Are you saying the courts have decided or that --

MR. McGINNIS: Delaware Supreme Court recently made the decision, and there was another case in the Midwest a year or two ago on a similar matter but it was a business venture.

MR. RHODERICK: Are you talking about the proposed nutrient management breaks that require a 35-foot setback?

MR. McGINNIS: Yes.

MR. RHODERICK: That is not part of this. Okay? I mean, this whole plan has been put together using standard practices for agriculture. It doesn't require the nutrient management 35-foot setback. This is based on all voluntary proper practices.

MS. McGINNIS: At the last meeting there was a woman who spoke about the -- from the EPA -- I'm Harriet McGinnis.

At the last meeting a woman spoke that the EPA had entered a nitrogen/lead input into the state system and how they were generally aware the air is responsible for 40 percent of the nitrogen, and I don't see any input from the EPA on the nitrogen from the EPA as the woman had spoken in the last meeting.

MR. ESKIN: What EPA has done -- the actual -- to simplify things for the states, the number that we are basically using, although it's publicly available, the total number is -- I think it's something like 217 when you include air, but EPA is not allocating the air to the individual states because that is happening nationally. So basically just took the whole air issue off the top and EPA is responsible for getting those reductions out of the Clean Air Act regulations that they're moving. I think it's called cross-state something now, CSAR. So they are responsible for that portion.

Anything that we can do over and above what is required federally, we can get credit for but we're not ignoring air. In fact, the director of air and radiation management at MDE is meeting regularly with the modelers in Annapolis at EPA, talking about how we can get a better angle on the air issue, how we get credited for what we're doing here in Maryland, say, with the Healthy Air Act and how, for example, we adopt clean cars or what's called catalytic 2, we should get additional credit for that.

Anything that is not included in the broad national air regulations that we do over and above that, we want to get credit for. We are not ignoring that issue.

MS. McGINNIS: Do you perceive that it will go into our program, our state program?

MR. ESKIN: Yes, I think it will. In fact, I know that EPA right now is talking about some new fuel standards that require a lower sulfur in gasoline. I mean, if it's sulfur, well, we're not talking about sulfur. But what happens is the sulfur in the gasoline poisons the catalyst to some extent, it's still operational but they're not as efficient as they could be. And what those -- the catalyst and the catalytic converters do is actually remove the nitrogen that occurs at high temperature in your engine.

So if these catalytic converters are more efficient because there is less sulfur in the gasoline, we'll actually get a very good reduction in the atmospheric generation that we can take credit for. We're looking at all of that.
MS. McGINNIS: What about the air over the bay where there is no cars?

MR. ESKIN: Well, the air is very well-mixed. I mean, you know, the winds are coming from, you know, west. In fact, part of our problem -- something like 70 percent of the nitrogen oxides that are coming into Maryland are coming across the state border.

We've basically done all that we can on air, very near, because we have got some of the most stringent requirements on power plants anywhere in the nation. So we've done -- everything else is coming from outside and that is why some of the states are even suing EPA to make other states reduce their load. Even though they don't have a problem, they're shifting their loads over here. So we're working very hard on that area. We're working with EPA as well as working with Maryland to address the air issues.

MR. BARNABA: My name's Kevin Barnaba. I'm the environmental health director for Harford County Health Department. I have a question related to septic systems.

We've talked about how this is going to be regulated and you had mentioned more track when talking about septic systems.

Well, for Harford County, the amount of money that we've received from the Bay Restoration Fund for septic system upgrades probably wouldn't even resolve about one percent of what we have to do as far as nitrogen loads for our septic systems. So my question is if the other 99 plus percent can't be met, what happens?

MR. ESKIN: Well, there is a couple of things that you can do. This is the kind of thing that you should consider in your plan. So let's say you have some failing septic systems, you maybe want to hook them up to a wastewater treatment plant. That's not cheap either but you could do that.

Another option would be to, let's say you have a minor wastewater treatment plant and you upgrade that plant instead of doing the septic systems. That might be actually a, certainly easier to handle and deal with and may be more cost effective depending on whether -- maybe you could get rural development funds from USDA, or there is a state revolving loan fund, a certain percent for that now needs to be in grants and is available. So there is a number of funding options depending on what you choose.

In doing the allocations, we try very hard not to actually target or be perceived as targeting any particular set. Unfortunately, this all started out, somebody came in to say we're going to get agriculture, we're going to get storm water, and we disagree entirely with that. We're not out to get anybody. We wanted our allocation to be as equitable and objective as possible.

Basically, we want the people who will pay the amount of reduction you need to accomplish is proportional to the amount of pollution you create. That may not be the most cost-effective way.

But that's an equitable way and we were hoping that the cost effectiveness would come around subsequently when you say, okay, that is our allocation to this sector, we'll pay somebody else to do it because they can do it a lot cheaper than we can do it ourselves, and that's how you get to the cost effectiveness.

So, look, don't feel that although you have an allocation for septic systems, that it's written in concrete and it can't be modified. Look for alternative ways to open it. Community systems that do better than individual systems might be an option.

A developer comes in and let's say there's a failing septic system not too far
away, maybe you could get that developer, as part of his offsets, to build a community system that could encompass both his development and the adjacent development because if you're already putting in a system, it's pretty cost effective and so instead of upgrading those septic systems, you can connect it to a local community system that would be more cost effective than either connecting them to a bigger wastewater treatment plant or upgrading the individual septic.

So think out of the box. Think about ways to leverage the private sector to get them to help you because when those accounting-for-growth policies come out, they're going have to find those offsets.

MR. MILLER: My name's Gary Miller and I'm not a fan of the state government and I'm certainly not a fan of the EPA. And you're saying the EPA does not target agriculture, but when it comes down to your farm, your family, and your livelihood that is affected, it certainly comes across that way.

There is very few folks in the agricultural community so that is where we get this -- that we feel as though we are targeted.

Your model changes -- if our goal -- and if the goals you set are met by, say, 2020, will the EPA go away or will it just make it more stringent? I bet it won't go away.

MR. ESKIN: They won't make it more stringent either. This TMDL which -- the number for the whole bay actually has been very stable as they have run the various predictions and models. Pretty close to the same number, and that is sort of the fixed amount. The bay can take that amount and still be where we need it to be. So as long as we're getting that amount, we're not going to make that TMDL more stringent.

We may find that the practices aren't as efficient as we thought they were and therefore we need to do a little bit more, but we're not going to make them more stringent per se.

Now, in terms of, say, agriculture feeling targeted, even before this bay TMDL, EPA came around to maybe just to Baltimore City and Baltimore County, WSSC, that's the Washington Suburban Sanitary Commission that handles the water and sewer for all the area around D.C., and they have to upgrade all of their -- well, they have to upgrade their major infrastructure, the pipes, we get storm overflows and stuff like that.

Well, those communities each has to ante up over a billion dollars to fix that infrastructure. So the urban folks are getting hit pretty hard too, and I know, I see my bill going up year by year.

This is an impact -- Clean Water Act was revised in 1972 and really we have not paid attention in many ways. It's not just agriculture, it's urban areas, it's the agencies, it's EPA itself who got sued left and right for not doing what they were supposed to do. And now basically it's come to the point where people said you need to follow the law that was passed and we're having to make up for 35 years of ignoring that law. And it's not coming at a good time.

MR. MILLER: Right. When the EPA gets sued, it doesn't come out of your pocket. When I get sued, when my neighbor gets sued, it comes out of his pocket.

MR. ESKIN: Well, actually, it does. That billion dollars, I mean, I pay some of that so it does come out of my pocket.

MR. MILLER: Well, wait till you get hit with a four and a half or five million dollar lawsuit personally.
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<tr>
<td>MR. ESKIN: No, that doesn't --</td>
<td>I don't know where you're getting</td>
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<td>MR. MILLER: Right --</td>
<td>your information on what we get credit for and</td>
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<td>MR. ESKIN: Right. But --</td>
<td>what we don't get credit for. I just found</td>
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<td>MR. MILLER: That's what --</td>
<td>out two weeks ago information about the CREP</td>
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<td>MR. ESKIN: Well, you're not, I</td>
<td>program which gives you credit for a lot of</td>
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<td>mean, at least you were [inaudible]. I know</td>
<td>other conservation things that we do that we</td>
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<td>there's something going on the Eastern Shore</td>
<td>don't get credit for. This has been going on</td>
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<td>and we won't talk about that tonight.</td>
<td>for years but I never knew about it.</td>
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<td>MR. MILLER: Right.</td>
<td>This meeting, I didn't know about it</td>
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<td>MR. VAUGHAN: But that's a different</td>
<td>until two days ago. Now, maybe I am supposed</td>
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<td>issue.</td>
<td>to be on a computer or something. I don't</td>
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<td>MR. ESKIN: No, it's not.</td>
<td>know. But I'm not. We have to find out this</td>
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<td>MR. ESKIN: Well, it is because I</td>
<td>information by ourselves.</td>
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<td>don't agree with the way -- with what is going</td>
<td>Okay. The next thing. When you're</td>
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<td>on there. Basically, our department handled</td>
<td>talking about the bay loading, I want -- does</td>
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<td>it and that should have been the end of it but</td>
<td>anybody here realize that when the earthquake</td>
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<td>not -- I think it's really unfortunate, I</td>
<td>happened back a couple of months ago, a</td>
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<td>think, that those folks are being treated like</td>
<td>54-inch main sep coming out of Baltimore City,</td>
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<td>collateral damage and it's really -- my</td>
<td>20 million gallons a day for 30 days raw</td>
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<td>feeling is -- the developer expressed this as</td>
<td>sewage into the bay. Was that on the news?</td>
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<td>well -- that they're not being treated fairly.</td>
<td>How many -- hold up your hands. How many knew</td>
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<td>And but there's nothing that we can do about</td>
<td>I found out about it from a</td>
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<td>that here tonight.</td>
<td>Baltimore County sewer foreman and he said if</td>
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<td>So we're here to really talk about</td>
<td>they admitted to 20, you can figure it's</td>
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<td>the WIP and the TMDL and help people</td>
<td>double that. So all of our work continues to</td>
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<td>understand what is happening.</td>
<td>get wiped out by this municipal stuff and it</td>
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<td>MR. VAUGHAN: My name's Dan Vaughan</td>
<td>goes on and on and on and on.</td>
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<td>and I'm from Harford County and I don't know</td>
<td>The EPA has got to leave us the heck</td>
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<td>where to start. I'm going to apologize for</td>
<td>alone. I don't know where -- I don't know how</td>
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<td>rambling because I don't know where to start.</td>
<td>we're going to stop it but something's got to</td>
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<td>I'm this close to either crying or puking. I</td>
<td>be done. You're talking about -- he made</td>
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<td>don't know which. I don't know where to start</td>
<td>mention about people being sued and, John, you</td>
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<td>in all this.</td>
<td>were in on this just a year or so ago and the</td>
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<td>Okay. The WIP meetings, we had one</td>
<td>efficiency, the money that you're dumping into</td>
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<td>in February. We're going to get together in</td>
<td>this and you're not accomplishing nothing.</td>
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<td>September and go over all these things that we</td>
<td>You've spent $20 billion to get to where we</td>
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<td>weren't given credit for. We never had no</td>
<td>are today and you're still saying the bay is</td>
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<td>meeting. I've been on the WIP program since I</td>
<td>no better.</td>
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<td>was asked to be on the committee, and the</td>
<td>You went after a local farmer for</td>
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<td>first meeting that we had of the committee --</td>
<td>two years, costs I don't know how many</td>
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<td>and you know this, Bill -- I have never been</td>
<td>millions of dollars, and Judge Cavanaugh fined</td>
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<td>contacted once about another meeting.</td>
<td>that? Okay. Was it on the news? No.</td>
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him 20 bucks because he did everything he was supposed to do. But you and people in the Maryland EPA went after him, went after him, went after him and just about drove the poor man insane and bankrupted him, almost bankrupted him.

And when it came down to it, all the facts were studied and read, it cost the state I don't know how many million dollars, they fined him $20.

Now, this is what we're trying to make you understand, you have to leave us alone.

Septic tanks. There is no better way to deal with wastewater than septic tanks. I don't care what anybody says. My well is tested every year by the state with my well permit. My well is 40 feet deep. My septic tank was put in in 1920 when they built my house. It is 60 yards from my well. I have perfect water because it works. Yes, some of them may fail but you can't make these blanket assessments.

Then the next thing I want to yell about, about these assessments. Here was regrets, okay, well, this model is going wrong, but they keep changing it. Well, it didn't work out this way so, well, we will just readjust it to make it -- it's all smoke and mirrors. It's like a giant shell game.

Where's the pea next? You keep moving it, you keep changing the rules.

Like he said, where is it going to end? When is it going to end? I don't know. I don't understand, you know, what we're supposed to do as a people. How are we supposed to feed all of you people? How are we supposed to feed the world?

In the next -- by 2050, agriculture of the world is going to have to produce as much feed for human consumption in the next 40 years as it has in the past 10,000 years, in the next 40 years. How are we going to do that if we keep constantly have to play these silly games.

The meeting that we had in Bel Air, you were there and I talked to you then. We're going to get credit for these things?

MR. RHODERICK: Yes.

MR. VAUGHAN: Well, it's all pickety-pick bullshit stuff. If you want to fix something, start with municipal, get that fixed, no more municipal wastewater going into the bay, untreated, then come back and start worrying about us.

We don't pollute intentionally. We don't pollute -- we can't. We can't afford it. Every drop of manure that we produce, we utilize for our crops. Every time we go out on the field, we're getting scrutinized. Oh, we can't spread manure before March 1st. Now, my neighbor is spreading sludge. He's been spreading sludge for two weeks. When you call the Maryland DA, complaining, do you know what they tell me? It's permitted.

Now, he can spread sludge but you're not supposed to spread manure. It's all smoke and mirrors. And how are we supposed to care about anything you people are doing when you've been goofing around all this time and you've accomplished nothing? I mean, I don't know.

MR. ESKIN: Well, we actually have accomplished a lot. In the face of growth, we've stabilized the loads going into the bay. There is some areas that have been showing significant improvement. You cite, you know, a pipe that broke. Yes, things that we build break occasionally. It was fixed. The sewage is relatively removed. We're going to have a city --

I'm sure things break on your farm and then you fix them. Well, this broke, probably was 50 or 60 or 70 years old. It
broke in the earthquake, certainly that
couldn't be predicted, and they fixed it as
quickly as they could. We were spending two
billion dollars, more than that, across the
state to fix these things that happen more
frequently.

You know, basically it's old,
there's pinholes in the pipes and so forth.
We are fixing that. We are making progress.
Where we're not making progress, more people
come in -- as you point out, there's going to
be more people in the world. We're fighting
against that as well.

I think that the agriculture
community is certainly doing its part. There
is no doubt about that. But there are areas
where it's likely that too much manure is
generated, more than can be used locally.
Across the state, it might be fine but there
are local areas and then what happens when it
runs off.

And I think they're working right
now if I'm not mistaken to make the sludge
regulations and the manure regulations to some
extent consistent with each other.
So we were trying to pull this all
together. It's complicated. It's difficult.
It's expensive.
As far as, you know, getting the EPA
off our backs, you need to talk to Congress
about that. They passed the Clean Water Act.
We're a country of laws. It says that we need
to do these things and EPA is just doing its
job. It's doing what Congress told it to do.
You know, it's the best answer I
could have for you. It may be not be
something really satisfactory. You may still
feel that we're not doing our job and this
whole thing is crazy.
I can tell you that through the
Clean Water Act, I mean, think back to why it
happened. Lake Erie is catching on fire. Our

streams, the Potomac is a cesspool and now
it's a bass fishery.

We are making progress. Sometimes,
you know, it seems like, well, they're picking
on me or they're getting too nitpicky about
things that we need to do. We're all hanging
through stuff. That is how we make progress.
Now we're getting to the more difficult phase
and it is hard. I understand that. But we're
told that, you know, according to our laws it
needs to be done and so we're trying to do the
best we can.

I mean, in some states the state may
have developed a plan all by themselves. Are
we perfect? No, of course we're not perfect.
We're doing the best we can under the current
situation. We're soliciting input. We're
doing our best to get the word out, we're
holding these meetings, you know, again and
again.

If we missed you, I'm sorry about

that. Get your name to John, I'll make
sure -- they'll put you on the list and make
sure we send you a letter. I don't know what
more to say beyond that.

MR. RHODERICK: Just real quick, I
mean, I am really proud of Maryland farmers
because if you look, and I'm looking right
across the board, I mean -- Bill, help me out,
what was the one in Virginia or was it
Pennsylvania, 49,000 farmers?

MR. THARPE: Yes, Pennsylvania,
49,000 farmers in the Chesapeake Bay, 30,000
of them didn't have conservation plans.

MR. RHODERICK: We've got over 68
percent conservation plans in Maryland. I
mean, you look -- as you say, look at the
cover crops you've got. We are so far --
we're showing you the numbers up there, as you
said, like raw load, we're making almost 10
million pounds a year from what you're already
doing and we only have to do four million
more. I think Pennsylvania, they have got to come up with a plan for 12 million pounds. I mean, we are so far ahead and, you know, there is a goalpost and I think with the plan we've got in place, we can beat it. That is huge right there.

I am not discouraged. I'm just thrilled we're here. I'm aware of that because these other, Virginia and Pennsylvania, they don't have a plan still.

MR. MILLER: So, John, when you reach that goal, will you go away?

MR. RHODERICK: Me personally?

MR. MILLER: It started out with nitrogen. Nitrogen was a problem. Well, then when we found out -- well, let's find something else, so then we went to phosphorus. Now it's sediment, now it's septic. The rules keep changing and the better you get, the more you twist the screws.

MR. RHODERICK: Well, what we have heard from the EPA and what they said was you have the plan up here, you've got numbers. You've got widgets on the board. If you implement them and meet the goals --

MR. ESKIN: They used the actual discharge monitoring data. In fact, that was a problem for us this year because it looked -- it's been a very heavy rainfall year and the wastewater treatment plants get something called inflow infiltration and it increases the flow through the plant. So the loads go up just because of the rain, even though the plant's operating more efficiently. So yes, it's actual data that goes into the model profile process.

MR. LE GARDEUR: My name's Theaux Le Gardeur. I have a small retail business up in Monkton. We take a lot of people fishing around the cold water resources of Baltimore County, and I have three questions for you.

One is about the model. And I want to ask, on the model, what kind of compliance information was put into the model regarding point sources? That is, is the model a best-case scenario if everything is working under permit conditions, or was the compliance information put in on actual permit conditions?

MR. ESKIN: These are minor plants?

MR. LE GARDEUR: They're minor plants, yes.

MR. ESKIN: And we looked at that.
and it's still on the table. In fact, we put into the WIP that we would upgrade five plants statewide. The task force recommended we do ten. We're still looking at that.

The major plants, the 67 major plants account for 95 percent of the flow. So all of those minor plants put together are only five percent and it's really not necessarily very cost effective statewide to upgrade those plants, although locally it might be able to make a difference.

That is part of what is going into the process of deciding which plants -- which of those -- which of the five minors that we're going to upgrade might be local conditions.

MR. LE GARDEUR: I would love for you to push Baltimore County to look at upgrading the minor plants that are in Baltimore County because we have seen so many beach closures at Haviland and down towards the Bird River, Lower Gunpowder in the summer and fall.

MR. ESKIN: When there's closures, that's usually due to bacteria, not nutrients, and really if there is a bacterial issue, that would be handled with compliance. Basically these days, disinfection is very, very good. We know how to do it very well. We have been doing it for about a hundred years. So the beach closures probably aren't necessarily due to wastewater treatment plants.

MR. LE GARDEUR: Well, we have storm water and we have other -- and we have --

MR. ESKIN: I was --

MR. LE GARDEUR: -- a consent decree, Baltimore County consent decree. They're not supposed to have any spills by 2020 but it happens every time it rains.

MR. ESKIN: Usually, the spills are not at the plant themselves. They're in the piping and transport system and that's what that million dollars was going to fix.

MR. LE GARDEUR: Okay. All right. Thank you.

MR. ESKIN: So we're working on that.

Do you know how much the actual consent decree is, like 1.2 million?

MR. STEWART: Yes, I think for Baltimore County the price tag is somewhere around 1.2 million dollars. We've got until 2020 to get all of those upgrades in and there are still some without consent decree. And the city has until 2014. They actually had the consent decree before we did.

The major focus originally is on the system itself, looking at finding the leaks and so forth but it's also on the pumping stations. There's 120 some odd pumping stations. They're not treatment stations but because sewage flows downhill, basically you've got to get over the hill to get it to the treatment plant and so they've put a lot of progress on the pumping stations, getting those up and they have actually prioritized the systems based on age.

So the older the system, the earlier it is in terms of going in, checking it, and they have to do flow studies, they have to calibrate the systems and then they have to identify based on that -- identify where the problems are and then get the design to our system. In some cases it's simply relining, in other cases it's actually replacing the existing system with a brand-new system. So it's not an easy thing to do. It takes a little bit of time to go through your design and all of that but it is making progress.

In terms of the bacteria at the beaches, storm water runoff, if you fix all of the sanitary sewer and you don't have any leaks, you're still going to have bacteria problems at the beaches. That is just because
we have wildlife, we have pets, we have other sources of bacteria, you're going to have [inaudible].

I don't think there is anywhere in the United States after a rain event that you're going to actually not have problems with bacteria.

MR. LE GARDEUR: Can I ask a quick follow-up on storm water. So the follow-up on storm water, as you mentioned, compliance has been a big aspect of how you regulate wastewater treatment plants. I understand that MDE is under a consent decree to essentially evaluate storm water in Baltimore County every three years.

MR. ESKIN: I mean, basically the program is every five years. We're working with EPA on that.

MR. LE GARDEUR: But MDE is to provide a compliance aspect to Baltimore County storm water?

MR. STEWART: There is a number of things MDE has to do. The actual storm water regulations are delegated for enforcement at the local level and so MDE, every three years, does a delegation review -- it's not under a consent decree or anything like that -- for erosion and sediment it's every two years.

Again, it's a delegation thing and then MDE comes out and looks at the program, looks to see whether it's accurate, whether it's meeting everything it's supposed to do and whether we're fixing it if it's not. But I'm not aware of any consent decree.

MR. ESKIN: No, I didn't hear anything about that either.

Is there anybody who hasn't asked a question yet who has a question to ask?

MS. POWERS: Jen Powers, Gunpowder Valley Conservancy. This goes back to the farmer's comment about just learning about CREP. The 2008 Farm Bill had a lot of programs for conservation and money for farmers but what I had learned was that there wasn't enough staff, I guess, maybe to implement at the ag district or [inaudible]. But just in the framework to get the word out to advise farmers on this money is available to them.

How is Maryland going to change that and is Maryland working towards making sure those programs are retained in the 2012 reorganization of the Farm Bill?

MR. RHODERICK: Okay. Good question. Great. We have a good answer, hopefully. Basically, you're right. Where we're at is it's never been about our programs. We have capital moneys. It's the ability to get out and work with individual farmers.

At this point, the best we do is when a farmer comes in to us and says I heard about this and I am interested in it, would you come out and look. We have a backlog in the office of people like that.

So that means we're not doing the other, which is going out and visiting the new cooperators or working with farmers and really, you know, providing assessment service that we should, so, right. And that is the issue.

Just as you heard, people are unaware. As these programs roll out, we can't get the word out. We send newsletters. These guys do a great job, you know, but, you know, you really need to go down the lane and knock on doors and we don't have that ability.

So with that in mind and what you saw up here, when we did talk to the governor, we were understaffed and he saw these figures about we have to go to an aggressive strategy, we can't do it with the existing resources.

He recognized that, and if you notice, right now there is in the legislation
under the trust fund, they would potentially provide us enough funding to hire 30 additional people. Sounds like a big number but that's about one additional person in each conservation district, but that's a great start.

I think we did our analysis based on that and we need about 140 to 160 people to initiate it and we have about 80, so 30 is a great start towards that number but we're still going to need more.

MS. POWERS: And what are you doing to protect those benefits that were in the 2008 that are maybe cut in the 2012?

MR. RHODERICK: Well, that's at the national level. You have seen what I have seen in the paper. While they're increasing funding, certain sections of the Farm Bill is under attack. That's all I can say at this point.

MS. HORSEY: John, we have those people that are out there doing CREP outreach now.

MR. RHODERICK: Right. We do -- we did hire specific CREP -- we do have a couple of people doing grant funds to -- we got some grant money do that.

MR. WILLS: Keith Wills, Baltimore County Farm Bureau. We're working -- we just met earlier this week at the soil conservation district, trying to put a program together to I guess to inventory the [inaudible] BIDs.

Two questions I have that came from this and I am not sure if you know the answer or not but the nutrient training programs, they're verified on an annual basis, correct?

MR. RHODERICK: Depends on the BMP.

Annual practice -- everything has to be done, at least annual verification. Those cover crops are [inaudible].

MR. WILLS: A question on that. Is there any type of outreach that's actually going on to educate the, I'm going to call it the absentee landowner. That is the ground that is being tilled by a farmer, owned by someone else, as to having, like I said, a longer term lease contract on that land.

Because, let's be honest, if it's a cover crop program and it's being done on a annual basis and you've only got a one-year lease on the ground, right? Are you going to put any more money than what's available? You need to get your one crop out of there when you don't know if you're going to be -- if that ground's going to be yours.

Are there any -- is there any plan for any type of outreach or education programs for anything like that?

MR. RHODERICK: For the absentee landowners, I mean, obviously if you lease ground, you've got the guys here, as you say leased ground is all about, you know, who is going to pay the most. So, you know, if I am a landowner, you know, I've got a couple of farmers who want to lease it, do I want to tie myself into somebody and pony up, no.

MR. WILLS: When you say it doesn't have to be, you know, the newest and best [inaudible].

The other question I have is -- I am not sure you can answer this one either. If you're doing an actual cost share BMP, it was brought to my attention that if the profit is actually, the cost share portion is over the $5,000, that there's actually attachment to the deed of the landowner's property that runs that away from the BMP; is that correct?

MR. RHODERICK: Eric, help me. Is it 10,000?

MR. HINES: Five.

MR. WILLS: I had talked with several people this weekend and knows the program and they're not aware of that at all. And actually those who were aware, that is a
real -- very negative that if you're a
landowner, have something attached to the deed
of the property, they're very concerned about
that. I just see that as a major aspect of
going forward in the cost share programs but
that is the --
MR. RHODERICK: That's the
controller's office. These are taxpayers'
dollars so they want, you know, accountability
that, you know, funds expended, you know, is
maintained and it's there. So that is
something that is from the controller's
office.
MR. WILLS: Okay.
MR. SWACKHAMER: Another question
on -- I'm Gene Swackhamer, farmer in Baltimore
County and also MARC here in this building.
On the trading of nutrient values
that are appropriate, does the -- I can see it
in the aggregate how it benefits and how it's
an escape valve for further development, but

is there any basin or county constraints on
the trading so that the credits and so forth
in the aggregate also get reflected at the
point at which the use is being developed? Do
you follow what I am saying on that?
MR. RHODERICK: Are you talking
about delivery ratios or equating a pound as a
pound?
MR. SWACKHAMER: Well, yes. If in
the aggregate you're looking at basins or a
large territory, the nutrient trading will
work very well, I think. But then if it's an
adjacent property to me, and it more than
offsets anything that I've ever done because
all of a sudden they've benefited septic tanks
in another county but they're not working on
the stream that flows through my property, how
do you get -- it's distorted data, I think,
after a while.
MR. RHODERICK: We have in -- the
tool we use, it looks at both where the

buyer's located and where the seller is. So
I'll say if you're a buyer, keep it simple,
you know, here in Baltimore County. But if
you're buying, let's say, in Washington
County --
MR. SWACKHAMER: The buyers are
going to be wellers.
MR. RHODERICK: Well, the buyers,
the wellers here, the only offset you can find
in Washington County, we have a mechanism in
place and, again, it's a model mechanism but
it talks about the delivery ratios. So you
equate both loads delivered to the bay. So
where you're located, what --
MR. SWACKHAMER: That's right.
That's why it works well in the aggregate, but
not if it's starting slurry home fairly
quickly.
MR. ESKIN: Well, trades are limited
to -- I mean, there is -- if there is
something that is going to cause degradation
of water, that trade would not be allowed. So
basically, and because John has the
thresholds, you need to have a certain -- you
need to have done a certain amount towards the
restoration goal, you can't -- you'll be in
good shape locally as well.
MR. RHODERICK: We actually had that
case on a plant that's not to be named. It
was on a tributary and they wanted to increase
their flow and they wanted to trade by
offsets. But in loading the model, by them
putting more load into that specific
tributary, it was going to create -- it would
have caused a problem so they couldn't trade.
Even though they wanted to expand, you can't
do it.
MR. THARPE: Bill Tharpe from
Harford County Soil Conservation. I don't
want to be pessimistic but I need to hear the
answer to the other side of the coin.
In the past meetings, in the ag work
group meetings, we've talked about contingencies and I assume the contingencies are if we don't meet our goals, but when will they kick in? Will they kick in at 2017, at 2025? Who establishes those contingency plans and, you know, then who has enforcement --

MR. ESKIN: I can't give you a definite answer. I think that the way it will likely work is that, well, we like to be working with counties. I'm sure John will continue working with you conservation tracker to know where we are. I would expect that the first point at which we talk seriously about consequences would be the 2013 milestones, and unless something goes through in the General Assembly, now basically you can't do anything as far as funds clearly there is a dialogue to go here. You entered into this contract, if you want to call it, based on, you know, funding that was in place and there's, of course, no reason to --

MR. RHODERICK: I mean, let me give you an example. If they go to the farm and they just said, what if we cut CREP out, I mean, part of your goals up there with farms as well as CREP out, I mean, you're going to have to do something. You entered into this contract, if you want to call it, based on, you know, funding that was in place and there's, of course, no reason to --

MR. THARPE: We've already lost CREP, I mean, you know, Baltimore [inaudible] hasn't allocated to anything and if it does, it's going to be connected to an endangered species. So I have watched three to five projects because of that funding program not being set up the same way as it was last year.

MR. RHODERICK: We've got to talk to [inaudible].

MR. THARPE: Good luck.

MR. AARON: Mike Aaron, Blue Water Baltimore. Couple of related questions. Number one, just staying with the whole deadline issue, county plans aren't due to be finalized until June, the state plans are going to be finalized the end of March. How do you sort of get the county information from statewide if there is that disconnect? And another sort of related question. A lot of the county plans didn't have any funding mechanisms or didn't have what I would consider adequate funding.
mechanisms. How do you submit a statewide plan without knowing how these things are going to be funded?

MR. ESKIN: There is actually a fair amount of funding in total, not nearly enough for what we need, but there is a fair amount. Part of the reason, not going into details, is that it's based upon [inaudible] is not really good for us, with us having submitted in March in the General Assembly though it's not due until the first week in April, but the Bay Restoration Fund, I mean, they're talking about now, you know, it was do we double, do we triple it. Some even said quadruple it. They may probably have to split the baby here and go somewhere about two and a half million. Then we need to look at the budget. What's in the trust fund. Where we actually have asked EPA for some more funding and they said, yes, we'll talk to you [inaudible] more funding.

And I know we have been -- we've gone down and spoke with the Undersecretary of Agriculture about this, about the WIP and about the need for funding among other things. Agriculture -- the federal Department of Agriculture actually has helped out in Anne Arundel County with some of their upgrades to wastewater treatment plants under the Rural Development Program. So there is funding out there, the state revolving loan funds. I think I said earlier that some of those funds are being used for grants now. There are opportunities. This is economically -- everybody's getting hammered: the local, state and the federal level. So the way I like to look at it is what we need to do now is to make progress. Don't worry about taking off the whole, you know, seven-billion-dollar bite, ask yourself what can we do in this upcoming budget. How do we show continuing, incremental progress.

We do know that there is going to have to be likely some local increase for storm water permits and local upgrades, regardless. Several municipalities, at least one county, two if you count Prince George's, have a storm water utility, P.G.'s value added tax. That's a good place to start, at least to get the authorizations and the structure in place, even if you don't actually begin imposing funding right now.

That's the kind of progress EPA's going to look for, and you can get revenue. You have to set up meetings even if that revenue isn't just coming in just yet.

MR. THARPE: That was a long way to say you're not sure, but we'll do the best we can.

MR. ESKIN: That's exactly right. There are unknowns. These are bad -- economically, it's a bad time to start this, but every other time we try to make progress, there was, oh, not now, we can't afford it now. It's been spent, it's too complicated. Until finally, you know, it just all exploded and it happened to explode at the very worst possible time.

MR. THARPE: Any guesses on how to deal with what is going to be a significant shortfall for bills that are currently in the legislature for funding, storm water for funding, dealing with septics that don't pass?

MR. ESKIN: I don't even want to think about it if they don't pass this. If the bay legislation funding doesn't pass, that is a whole new ballgame and I have no idea how that is going to turn out. I've heard that it seems very likely there is going to be some agreement. I don't know more than that. I am not directly involved with those discussions.

MR. McGINNIS: The greatest loading just seems to be on the Eastern Shore -- Wayne McGinnis, farmer. Greatest loading is on the...
Eastern Shore, the Potomac watershed. Are those farms required to have a proportional reduction in loading as compared to Baltimore County?

MR. RHODERICK: Yes. I went -- a couple of you are familiar, we actually showed previously some charts and you see like -- I want to say Caroline County, the load reduction they were looking at was almost a million pounds, Kent County was a million pounds. Whereas in Baltimore County, based on the amount of land acres you had and animals -- come on, Jim, help me, was it 100,000 or 200,000 pounds for Baltimore County?

MR. THARPE: 235.

MR. RHODERICK: 235. So yes, depending on how much ag acreage you had and the amount of animals, that's how -- that's what drove those load numbers per county.

MR. AARON: [Inaudible.]

MR. ESKIN: I'm sorry, say that again.

MR. AARON: The MDE has delegated authority for enforcement actions.

MR. ESKIN: Sure. That hasn't changed because of the WIP. It's still the same.

MR. AARON: Okay. Is there any thought on how to alter loads in the case of new information that comes down for climate change?

MR. ESKIN: You know, that is an interesting question and it's a very real question. I don't think that we know enough to answer it at this time. We know, for example, or we believe the trend seems to be that because of climate change, we're seeing larger variations in the weather. So you have, you know, downpours more often than you used to. You have higher winds than you used to.

So it's a good question. If we're designing for what has been happening in the past, say, you know, one inch is becoming a larger and larger portion of our total rainfall, going to come in larger storms rather than the average storm. In other words, the precipitation in the average storm is going up.

We have to -- we don't have enough experience, enough data yet to really make any projections, but I am pretty confident somebody is going to bring that up for the next generation model and whether or not we can do that.

Even now, though, we use an average period of like a ten-year hydrology, so that's, you know, not affected by year to year. We may have to move that ten-year period up to capture more variation than we had. You know, 15 years ago with ten-year hydrology we were using in this iteration of the model. But yes, I mean, we are going to get more sediment into the water as the water level goes up and we have a rising water level.

MR. AARON: [Inaudible] farmers. And then we come back to them and then say, hey, there's more sediment, there's more nutrients [inaudible].

COURT REPORTER: I'm sorry, I can't hear anything you're saying.

MR. AARON: It seems like the discussion on the reduction of sediment is pretty weak.

MR. ESKIN: Yes.

MR. AARON: But based on the understanding that the phosphorus finding of sediment and the impact of storms, it seems that we need some more detail in that section.

MR. ESKIN: We have been working on nutrients for 20 plus years. We've really haven't been working on sediment for nearly
that long and I'm sure we're going to see some improvements in the way we handle sediments in the revision of the model in -- by 2017. Right now, it's actually a pretty good estimate that the practices that we use to control phosphorus, which is basically keeping the sediment in place, we're also keeping sediment in place obviously in roughly the right amount. There is some places where that may not prove to be true, very specifically if a lot -- let's say a particular basin, most of the phos reductions coming from the wastewater treatment plants, we are just directly getting a lot of phosphorus reduction but no associated sediment reduction. That is where that will fall apart. So now D.C. might have a problem with the Blue Plains Committee, but on the other hand, they're paved over so where is the sediment going to come from.

So it might be a load problem but statewide we don't think it's going to be too much of an issue. Overall, we'll get a better approximation of that in 2017, I think. MR. MILLER: I have a comment. And it's great that we can all come here tonight and get together and talk and you can hear different points of view and still be civil. And I've lived a real sheltered life. I mean, I don't get out much and I don't want to cause anyone embarrassment by singling one person out, but I have to. It's fascinating me, this young lady sitting over here tonight. She's been recording all this, her fingers have not stopped since we started. And you're to be commended for it. COURT REPORTER: Thank you. (Applause.) MR. ESKIN: By the reason that she's doing that is so that we can post a transcript so that people who were not able to attend tonight can get online and see what went on and maybe they can form their own questions. They won't be here but at least they'll be posted on the Agro-Ecology's Web site.

MR. AARON: I only have two more. MR. ESKIN: Let's get them both at once.

MR. AARON: These are a little more detailed so bear with me. On page 39, there is a reference to "those needing to purchase nutrient offsets will be required to purchase slightly more credits than they need." What does "slightly" means?

MR. ESKIN: Well, that's part of the policy that we're working out.

MR. RHODERICK: If you actually look at the current trading program policy, it talks about, as you said, we're very concerned not just to have a one-on-one trade, so right now we're required for trading ten percent over. So if you were the buyer and you needed a thousand credits, we're going to make you buy 1100. You get your thousand but the other ten percent goes through, the good with the bad [inaudible].

MR. ESKIN: That's on the trading.

MR. RHODERICK: That's on the trading.

MR. ESKIN: But on the offset policy, the ratio's maybe higher.

MR. RHODERICK: Right. They may be higher. Depending on where you're looking. There is that whole component.

MS. HORSEY: The part that he's referring to is under Safety Margin for Offsets.

MR. ESKIN: One more question, then we will give you a shot, or did you want to address this?

SPEAKER: Yes. It's my
understanding that the offset policy is about
a year away from being fully developed.

MR. ESKIN: I think that we're
trying to move that forward. In fact, we
talked about trying to start the public
discussion on that. It can come in with the
WIP but then we backed off because of the task
force and we wanted to see how the General
Assembly responded to that. So we will
probably start getting something out in the
spring.

MR. AARON: A draft.

MR. ESKIN: You reached a mutual
guidance for details in connection to local
jurisdictions and that's [inaudible] in the
WIP which is great news. Is there any case
when permits have not yet had a short local
time period and then it's expired for several
years? Any assurances you can provide that
they'll all be complete and approved by
December 31st, 2012?

MR. ESKIN: I would be willing to
put it in the WIP having milestones, specific
dates. We have talked about that with EPA. I
don't remember the exact dates so I don't want
to commit here but they have insisted as part
of their evaluation of our draft WIP and our
milestones that we commit to firm dates and
they will be in the milestones in WIP.

MR. AARON: Thank you for your
patience.

MR. MARK McGINNIS: Mark McGinnis,
farmer. I just would like to say about the
issue of trades. Possibly all of the ag
industry, when they come up with these extra
above and beyond what they need, that we save
them for farmers. So if a farmeer has a
spill, we could use that all for them and let
the urban and septic take care of their own
and come up with their -- [inaudible] make
fining them to do the infrastructure.

MR. RHODERICK: Yes. Remember, this
is a voluntary component. Unless you agree to
let us come out and do an assessment and we
can advise you whether you have credits that
might be salable and then it's still your
decision totally if you want to sell them or
sue them, you know. It's -- so it's --
nobody's coming out and saying you've got to
get the [inaudible] you got to make these
things available. That's not what it's about.

MR. ESKIN: There is also an
assumption in your question that I think is
important to address. We're not going to be
tracking things at the level of an individual
spill for a farm or for a wastewater treatment
plant with a broken pipe or something like
that. Basically, that's not an ongoing road.
That's something that will be fixed.
That's not to say that there won't
be an enforcement action but it's not going to
be a part of the WIP per se. Basically, we're
looking longer term where we are on loads. So
you would not be debited, if you will.

With respect to the WIP for a spill
on your farm, MDE might be out or
conservationists might be out to see if they
can fix it, but it's not really going into
those calculations. It's just too
insignificant, it's ephemeral. That's not
what we're asking. We just can't deal with
those.

So I just want to -- it's not Big
Brother here watching, you know, every ounce
of nutrients. These are broad planning
targets and, you know, we're talking at the
basin level, we'll get to the state. So they
are, you know, broad-based plans.

SPEAKER: Did the variables account
for it?

MR. ESKIN: It's decibel dust. It's
lost in the noise of, you know, the change in
rainfall you get each year and the slight

34 (Pages 130 to 133)
variation of the limitation efficiency and the
soil, it's just minor.

SPEAKER: Except in the case of
the --

MR. ESKIN: Locally, it would have
little effect depending on size. But in terms
of the baywide, that's not going to be
tracked.

SPEAKER: But somehow it should be
monitored somehow because if you go back and
look at the track record of these treatment
plants and they're continually and continually
having overflows, having spills: 100,000, one
million, two million, 200,000. It's constant.

MR. ESKIN: And it does get
captured. There's something called a
calibration the bay program does with the
model. The model says you should have -- at
this time of the year in this location, you
should have this amount of concentration of
nutrients in the water. That is the place
where we monitor and then we compare the model
projections to the monitored data. So it's a
ground-truthing for the model and they make it
match up.

And the reason they do that is that
there are increments, small loads, you know,
you can't capture them individually, but in
MAST you capture them through calibration. So
that does happen. It's not going to capture
that particular one, but if you assume that
the spills are random and distributed in body,
random and distributed in space, then you will
in fact be capturing them through the
calibration check.

MR. KLINDELHOFETZ: Bill
Klingelhofetz. I had a question about how you
capture the gaseous nitrogen that comes off of
the sewerage treatment plants.

MR. ESKIN: You mean methane or
ammonia or what?

MR. KLINDELHOFETZ: Methane,
ammonia. There could be several forms of
nitrogen that come off in a gaseous state.

MR. ESKIN: Yes. Okay. Let's take
a step back. A little chemistry. The forms
of nitrogen that we're concerned about is
three major forms. There is ammonia, there's
nitrate and there's nitrite. Those are the
forms that are biologically active.

When it goes into the wastewater
treatment plant, it's enhanced nutrient
removal basically through a bunch of reactions
that happen because of bacteria. First
without oxygen and with oxygen they change
that ammonia, nitrate and nitrite into N2 gas.

That is the -- 80 percent of our atmosphere is
this N2 gas and that is not biologically
active.

So that is the whole reason why this
is so efficient, it works. It takes forms
that cause problems and converts them into a
form that's essentially inert. It doesn't
interact with anything.

MR. KLINDELHOFETZ: But nitrogen
changes forms so many times that if you
saturate something, it's not going to stay in
the same form.

MR. ESKIN: Well, once it's an N2
gas, the primary way that's going to get back
into nitrates, is just the lightning, because
when the lightning heats it up it gets
combustion, and the oxygen in the atmosphere
combines with the nitrogen in the atmosphere
to create this N2.

The other forms, that happens, say
power plant, that is the whole purpose of the
Healthy Air Act is to capture that nitrogen
before it leaves the stack so we're not adding
to the nitrogen in the atmosphere. Because
not only is that bad for the bay, but that's
one of the smog formers.

So that is why, under the Clean Air
Act, we're also trying to control nitrogen.
And methane is a greenhouse gas so it has nothing to do with the bay.

So bottom line is biologically, biologically active forms in a wastewater treatment plant are converted into biologically inactive, harmless form. And that's the whole purpose of that processing, to take a chemical that's bad in excess and convert it to something that doesn't have an impact.

Thank you all for taking the time to participate in this process.

(Proceedings concluded at 8:42 p.m.)

STATE OF MARYLAND
HOWARD COUNTY

I, Dawn Michele Hyde, a Notary Public of the State of Maryland, Howard County, do hereby certify that the above-captioned proceeding took place before me at the time and place herein set out.

I further certify that the proceeding was recorded stenographically by me and this transcript is a true record of the proceedings.

I further certify that I am not of counsel to any of the parties, nor an employee of counsel, nor related to any of the parties, nor in any way interested in the outcome of the action.

As witness my hand and seal this 1st day of March, 2012.

Dawn M. Hyde
My Commission Expires 10/7/2015