

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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1     ATTENDEES:

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3     MR. RICHARD ESKIN

4     Director of Science Services Administration

5     Maryland Department of the Environment

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7     MR. JOHN RHODERICK

8     Administrator

9     Maryland Department of Agriculture

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1 P R O C E E D I N G S

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

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

18 When I am done, John Rhoderick will  
19 sort of take the agricultural side, what they  
20 have done, the process they have gone through  
21 and where everything is now. And then we will

1 open it up to a question and answer period.

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

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

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

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

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

19           Load allocation is basically  
20 everything else. That's the farms, it's the  
21 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           As part of the TMDL, EPA  
10 requirements is something called reasonable  
11 assurance, particularly for the load  
12 allocation. For the waste load allocation  
13 where you have permits that is enforceable,  
14 you write permits, you have enforcement,  
15 inspections and so forth, the load allocation  
16 it's not quite such a clear guarantee that  
17 what you need to do will get done.

18           So as part of that, EPA says, "Well,  
19 if you have a plan and that plan is public and  
20 it's transparent and we can hold you to that  
21 plan, then that provides better reasonable

1 assurance that the TMDL will actually be  
2 implemented." So it calls to do an  
3 implementation plan.

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

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

19 So you need to develop those systems  
20 to track what you are doing so it can be  
21 reported to us so it gets reflected in our

1 progress reports to EPA.

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

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

17           What might those be? Well, they can  
18 open up the permits. That's where they have  
19 got their major control. So let's say that we  
20 have a minor wastewater treatment plant and  
21 it's discharging at 18 milligrams per liter

1 secondary treatment. They can say you will  
2 retrofit that plant and make it discharge at  
3 only three milligrams per liter and we really  
4 don't care where you get the money, you are  
5 required to do this.

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

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

20 They can just do more enforcement  
21 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

1 developed a tool to help them put that plan  
2 together called MAST, or Maryland Assessment  
3 and Scenario Tool.

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

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

17 MAST is a helpful tool. What MAST  
18 actually does is simulate EPA's watershed  
19 model, it doesn't simulate the watershed  
20 itself. Rather, we're trying to make it like  
21 a watershed model because that's the final

1 decision maker. What the watershed model says  
2 is what you get in terms of credit.

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

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

19 We had to develop 2017, 2025  
20 strategies. That's done. That was a  
21 submission that we gave to EPA about a month

1 ago, and now we're in the public review and  
2 revision period. March -- it runs through  
3 March 9th. And basically then between  
4 March 9th and March 30th, we're going to  
5 review your comments, take them into account,  
6 make what changes we need to make in the final  
7 version of the implementation plan and submit  
8 it to EPA on March 30th.

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

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

19           Now, although we will be reporting  
20 to EPA at the basin level, we will continue  
21 working with the counties at the county level

1 because that is where a lot of the work gets  
2 done and that is where we'll be going. Expect  
3 and hope for reporting on what has been at the  
4 county scale and we will roll it up and report  
5 to EPA at the basin scale.

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

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

17 That meant more hookups to those  
18 wastewater treatment plants, more septic  
19 systems in the ground, more paved streets to  
20 increase runoff, so we sort of neutralized the  
21 progress that we made.

1                   EPA said no, we can't do that  
2    anymore. From now on, you know, whatever  
3    loads are not already captured in the TMDL,  
4    they are new loads and they need to be offset.

5                   So if you're going to change the  
6    land use, say, by developing an area, you're  
7    going to increase the load by 50 pounds, you  
8    have to find 50 pounds somewhere else that  
9    you're going to reduce to offset the new load.  
10   And there was some discussion of cost and  
11   funding.

12                  In Section II, that's all about the  
13   process we have with the local teams, with the  
14   local governments. The meetings we have, how  
15   we work with them on MAST and so forth.

16                  Section III is actually what we got  
17   back from the local teams. So if you're from  
18   Cecil or Harford or Baltimore, you could see  
19   what your team sent in to MDE. And then we  
20   talk a little about where we're going in  
21   the future.

1                   There's lots of supporting  
2 information in the appendices. I am not going  
3 to go through them all but there's a lot of  
4 information that is available online for you  
5 to look at.

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

13                   We have set time frames to getting  
14 this all done. 2017 to get to 60 percent of  
15 the implementation, 2025 to do it all. When  
16 we had started out, we wanted to get to 70  
17 percent of the implementation in 2017. People  
18 said no, that is impossible. It's not fair,  
19 and we listened. And so we backed off. So  
20 now Maryland has the same basic pace as all of  
21 the other jurisdictions in the bay watershed.

1                   We are doing very well in terms of  
2   our overall reductions because of the Bay  
3   Restoration Fund. That has been in place for  
4   quite a number of years now. We have all of  
5   our processes developed. And upgrading a  
6   wastewater treatment plant is a big project  
7   and it takes time. You do a feasibility  
8   study, you do an engineering study, you do a  
9   design study and you get contracts and it  
10  takes a long time.

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

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

1 sectors.

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

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

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

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

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

19           Filling the gap. Not all counties  
20 submitted to us the complete strategy. They  
21 didn't give us a strategy that fully met their

1 allocation to cover all the reductions that  
2 were needed. So in those cases, MDE had to  
3 give a complete strategy to EPA. So we needed  
4 to fill in the gap and that's what we did.

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

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

19 There's still an opportunity to come  
20 back. If anybody, any county, any  
21 municipality didn't submit complete strategy,

1 you can come back and do it your way. I mean,  
2 basically what you're faced with is two  
3 options. You can give us strategy to do it  
4 your way or you can do it our way and we fill  
5 in the gaps. So there is still opportunities  
6 to do that.

7 So the bottom line is these are  
8 pound reductions. We have got 11 and a half  
9 million pound reduction from 2010. That's 22  
10 percent reduction load of the 2010 load.  
11 Phosphorus, just under 500,000 pounds, and 26  
12 million pounds of sediment, and you can see  
13 the percentage there as well.

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

17 MR. ESKIN: The percent we can -- we  
18 obviously have to start from where are we in  
19 2010 and that is a combination of model data  
20 and monitoring data. So we do a progress run  
21 from the wastewater treatment plants, they

1 measure it at the end of the pipe. So we know  
2 exactly what they have done. So that is the  
3 point source numbers for 2010.

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

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

19 Future steps. Okay. As I said,  
20 there is still an opportunity to refine your  
21 plans, to modify it, to fill out gaps that you

1 weren't able to do earlier. After June of  
2 2012, subsequent changes will be incorporated  
3 through an adaptive management process. And I  
4 can't tell you right now exactly how that will  
5 work but I do know that if you said you could  
6 guarantee me that these were the things that  
7 were put in the ground, and even though we  
8 said you've got to do that, you did this and  
9 we got the same amount of nutrient reduction,  
10 we're not going to turn it away.

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

20 And that's why we work with  
21 jurisdictions, the model is going to be

1 fixed -- well, I shouldn't say fixed,  
2 upgraded, refined, improved in 2017 and we  
3 would like to get better information, more  
4 accurate information on septic systems, better  
5 understanding of land use and so forth so that  
6 everybody has even more confidence in the  
7 model.

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

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

18           MR. RHODERICK: Good evening. I'm  
19 John Rhoderick. I am with the Maryland  
20 Department of Agriculture, and similar to  
21 Rich, I was put in a position of facilitating,

1 developing the agricultural portion of the  
2 strategy.

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

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

14           For the most part, the other three  
15 components, when we talk about wastewater,  
16 urban and septics, that's something that  
17 happens, as you say, somewhat at the county  
18 level and the state level. When you talk  
19 about agriculture, you're talking about  
20 programs and funding and implementation that  
21 occurs in a little different setting.

1           So we looked at that component and  
2   said because there is people that work  
3   specifically with the ag community, those are  
4   the people we need to get in the room because  
5   those are the people that are boots on the  
6   ground and they know and understand what is  
7   going on out there.

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

14          But we really focused on bringing in  
15  people, personally inviting them there that  
16  were people that worked with the farm  
17  community and with landowners. Because those  
18  are the people that could tell us going  
19  forward what there was available out there to  
20  still do, as well as what they already worked  
21  on. So they knew from the farm community what

1 the options were going forward that we thought  
2 we could get done. So with that in mind...

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

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

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

20 But here specifically in Baltimore  
21 County, you look at the Patapsco/Back River,

1 ag's only three percent of the load. You look  
2 at some of the others like Patuxent, 18  
3 percent of the load. So again, it's very  
4 important regionally, when these plans are  
5 developed, to understand where your loads are  
6 coming from because that has a huge bearing on  
7 how we develop these plans.

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

15           So what we do is we took and  
16 developed ag work groups in each counties and  
17 we used the soil conservation districts as the  
18 lead. And basically, as I say, these, you  
19 know, we had a very at that time scripted set  
20 of deliverables. At that time, we were told  
21 that our goal was by 2020, our governor

1 said -- even though EPA asks for 2025, our  
2 governor said I want this done by 2020. I  
3 want everything implemented and I want to see  
4 what it's going to take.

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

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

15 So here's what we have. We have  
16 these ag work groups. We actually had two  
17 sets of meetings in each county so -- was it  
18 48 meetings? We had two sets of goals. I'll  
19 talk about that in a second because we got  
20 started early before we had final numbers.

21 So we started with one set of

1 numbers, and then when the new model came out,  
2 we had at least a framework of how we were  
3 going to do it and we used the new model  
4 numbers to come up with our final plan.

5           And we had two sets of tools we used  
6 at that time and we worked off of two  
7 different strategies. The first time we did  
8 this, again because we didn't have the final  
9 numbers, we sat down and said, okay, the  
10 caveat here is by 2020, given the existing  
11 resources we have and the existing people in  
12 place that work with the farms and landowners  
13 and the existing programs as we know them,  
14 whether it be the conservation reserve  
15 program, EQUIP, whatever programs we work with  
16 farmers, by 2020 how much more can we get  
17 done, given existing resources.

18           The second time we came -- because  
19 now we had new numbers and a new model and  
20 clearly it said we had to do more, we came up  
21 with what we call the aggressive strategy, a

1 strategy that would not get accomplished with  
2 existing resources and programs but it would  
3 meet the goal. So that is what we were able  
4 to do is look at it from two perspectives, and  
5 that was very important.

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

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

1 opportunity.

2           Okay. So this is from, some of you  
3 that have been in the room and played with  
4 this, this is from the first meeting, and as  
5 Rich said, we didn't have much to go on but we  
6 went with the simple spreadsheet. Not the  
7 best idea but it's what we had at the time.  
8 So what we did is we took on this slide -- I  
9 know it's a little hard to read but you can  
10 probably see it in your information. These  
11 are the only BMPs that the model sees for  
12 agriculture.

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

19           So we went through and very simply  
20 we had to model some information about what  
21 the load reductions for nitrogen and

1 phosphorus were for each. We could put in  
2 information county by county about how much  
3 they had done currently, and then what we did  
4 is very simply go out in the next column and  
5 say okay, if for barnyard runoff control,  
6 which is actually recovery, if you've already  
7 done 50 barns in this county, how many  
8 additional opportunities are out there? How  
9 many additional farms or barns can we go out  
10 and put roof guttering on?

11 So it's a simple exercise of doing  
12 that and we could calculate load reductions  
13 based on that and we had our goal and so  
14 basically we saw if we could meet it. And  
15 that's how we did the first set of  
16 24 meetings, county by county. And again,  
17 that was based on existing resources and  
18 existing programs.

19 So here is where we ended up. The  
20 old bay model prior to August, the old bay  
21 model said for agriculture in Maryland, the

1 raw load, if you were doing nothing, if we  
2 weren't preventing anything from going into  
3 the bay, the raw load for agriculture would  
4 be 22 million pounds for Maryland going into  
5 the bay.

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

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

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

1 our obligation for agriculture. So we did  
2 that.

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

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

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

1 changes significantly.

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

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

20 MS. HORSEY: It's a train.

21 MR. RHODERICK: A train. Thank you.

1 It's called a treatment train and I know it's  
2 getting into the weeds but that is why we like  
3 this because for the first time it's giving us  
4 information about how the model works.

5 So we can sit here and plug BMPs in  
6 on, as Rich says, very specific land uses and  
7 we could see, as we continued to put more and  
8 more of the same -- BMPs on the same land, we  
9 didn't get, you know, reductions didn't go  
10 linear on the -- they kind of tapered off.  
11 And that was good because that helped us see  
12 exactly how the model works.

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

21 So here is where we ended up. Now,

1 the interesting thing is I know the other  
2 slide you didn't really take notes, so look at  
3 the numbers. They're completely different.  
4 This is the new model.

5 So instead of saying under the old  
6 model where they said the raw load for  
7 agriculture was 22 million pounds, this new  
8 model says 28 million pounds. Well, that's a  
9 big difference. Similarly, our progress. The  
10 old model says you reduced that load down to  
11 17.7 million pounds. New model says, whoops,  
12 you're not -- you haven't gotten that far. So  
13 this is why we ended up with new goals that  
14 were much more aggressive.

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

21 And this is what it looks like for

1 phosphorus. This was interesting for us as  
2 well because, as you can see, nitrogen was  
3 much more difficult to meet. Phosphorus, we  
4 actual met it and exceeded it.

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

13 So this is what it looks like, as  
14 Rich said, how we will be presenting it to  
15 EPA, we did present to EPA. They want to see  
16 it by basin. This is how it looks. So by  
17 basin, you know, here is where we were in  
18 2009 -- I apologize, Rich is using 2010, an  
19 update. But in 2009, here is where we were,  
20 and the red is where we tried to get to in our  
21 plans and the green is where we actually ended

1 up.

2 As you can see, it varies from basin  
3 to basin. Eastern Shore is much more  
4 difficult to get there. Even with the  
5 aggressive strategy, we're just a little over.

6 Potomac River, we're well under and  
7 you can see these are the two we want to focus  
8 on because this is where the major load is,  
9 according to the model. It's not the Western  
10 Shore, Susquehanna and Patuxent, but major  
11 loads are here.

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

18 So again, this is what the model --  
19 at least the information from the model and  
20 that's why I think we're a little leery  
21 because this phosphorus number, because as

1 most of you who read the paper, we believe  
2 there's a lot more phosphorus on the shore.  
3 So to suggest suddenly that, you know, it's  
4 real easy to meet it doesn't seem to make  
5 logical sense.

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

16 You have to remember what is missing  
17 from here is where we've come from. We've  
18 done over 26,000 acres of forest buffers to  
19 date. So we have done some of the easy acres.  
20 It's much tougher to get these additional BMPs  
21 for stuff like forest buffers because the

1 opportunities are not there.

2 So you have to understand, on some  
3 of these, where we are to date versus what the  
4 chart's saying.

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

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

12 MR. AARON: In all cases it should  
13 increase?

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

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

19 MR. RHODERICK: They should all be  
20 ramping up. Okay. And this is obviously a  
21 second page. And as you can see, it takes two

1 pages to show all these BMPs because for  
2 agriculture, we're looking at a suite of  
3 practices and obviously, again, this is not  
4 everything we do that has work quality  
5 benefits for agriculture, but this is some of  
6 what the model will read. So we're limited in  
7 that capacity.

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

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

21           So for us, it targets back to us on

1 how we need to focus our programs and our  
2 resources if we're going to meet the goals.

3 Okay. WIP Modeling Summary.

4 Basically where we ended up, as I said, is all  
5 23 counties did submit an ag strategy. An ag  
6 strategy for all 23 counties, and as of 12  
7 o'clock tomorrow they will be up and available  
8 at the MDA Web site. If you go under  
9 conservation, you can view any county, there  
10 is a map. You can pop on the map and see any  
11 county and see their plan just like I  
12 displayed it there for 2013, 2017, 2025 plan.

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

1 submit plans by the new year.

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

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

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

21 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.

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

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

19           And this is just again showing you  
20 that some counties, as you say, it was not --  
21 MAST, as I just referred to, was not reading

1 correctly. You know, you look at some areas  
2 like this where some of the crop, at least, it  
3 was off by 177 percent. That is pretty  
4 significant but that's fine. It was a plan to  
5 help us get there. But for some of the guys  
6 to reassure them we're aware of some of those  
7 issues that came up.

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

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

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

1 already, and I apologize, that should be 2012  
2 not '13. But for this year, these three  
3 subcommittees are going to look at specific  
4 things about the model and some of our BMPs.

5 And so the first work group that's  
6 been set up is the nutrient management work  
7 group and they're looking at a couple of  
8 these. I know like what was near and dear to  
9 us was this one that says nursery BMPs, for  
10 Bill and a couple of other people. When we  
11 looked at the model, and we do a lot of things  
12 with nurseries to mitigate their nutrients,  
13 but according to the model, there's only one  
14 BMP we could use and that was water capture  
15 and reuse.

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

21 The other one's down here. When we

1 brought out the paper for cover crops and we  
2 use, you know, forage radish, you know, we had  
3 a lot of cover crops this year was forage  
4 radish. We don't get credit for model numbers  
5 at this time. So again, we know it has work  
6 quality benefits. We've got to update the  
7 model a little.

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

12 Now, jumping, as Rich did, to this  
13 accounting for growth. This is a new  
14 component of EPA's requirement because, as  
15 Rich said, for every pound of new load that  
16 would go in the bay, it's got to be offset.  
17 We were basically capped across -- every  
18 sector is capped. So if you're going to put  
19 another pound in the bay, somebody's got to do  
20 something above and beyond what they're  
21 required to do under the TMDL.

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

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

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

21                  Last year, we had over 5,000 hits on

1 our Web site. If you're not familiar with it,  
2 it's [mdnutrienttrading.org](http://mdnutrienttrading.org) and you go on, we  
3 had 160 accounts opened. We did about 80 farm  
4 assessments last year. We'll probably do a  
5 little over 200 this year to -- for looking  
6 for offset potentials and we've hired some  
7 additional staff to help with that.

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

18 So they've actually contracted with  
19 the district to go out and work with the farm  
20 community and start looking for some of these  
21 offsets. So that as a developer comes in,

1 they would have a one-stop shop to say, okay,  
2 these are the offsets you need, and go to the  
3 conservation district, they identify some  
4 farmers that you may want to talk to that may  
5 provide this for you, and you will pay for it,  
6 by the way. And again, we know we have some  
7 grants that we'll try to help out with that as  
8 well.

9 I am just going to end up with this,  
10 which brings us back to where Rich was.

11 Again, for agriculture, as you saw, we meet  
12 the statewide targets. We are well under for  
13 phosphorus but I am not holding on to that,  
14 you know. I am standing on that one.

15 Here's what it looks like statewide.  
16 I mean, right here, 51 million pounds in 2009,  
17 according to the model, is what we were  
18 dumping in the bay, all sectors in Maryland.  
19 We had to come up with a plan to get us down  
20 to 41.7. What we came up with was a statewide  
21 plan through all sectors that got us there.

1 I'm sorry, the other way around, 41.1 from  
2 41.010.

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

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

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

18 MR. RHODERICK: The bay model was  
19 basically started in Hillhurst[phonetic] for a  
20 64,000-mile-square area. It does very well at  
21 large geographic areas. When we started using

1 it and broke it down to the county level, it  
2 was not working correctly.

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

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

21 The other part of that question is,

1 in the bay model, have some of the items that  
2 generated the proper reduction in credit been  
3 adjusted, specifically one that Farm Bureau  
4 brought up was, you know, yield potential out  
5 of using old data which, you know, should be  
6 higher which actually relates to more nutrient  
7 uptake. So that -- those -- are we getting  
8 true reduction credits that ag should be  
9 getting?

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

17 So you add on the second one, you  
18 had that first one there and it took care of  
19 part of that per-acre load, the second one is  
20 going to be somewhat less efficient. The  
21 third one is going to be somewhat less

1 efficient than if used independently, and that  
2 sequencing interaction between the BMPs is  
3 part of what is in the model and that's why  
4 spreadsheets don't work too well. But this  
5 MAST that simulates the model comes a lot  
6 closer to capturing the integrate efficiency,  
7 if you will, of that treatment train.

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

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

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

1 remaining, so it decreases the value.

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

10           MS. HORSEY: '17.

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

17           MR. ESKIN: And there are some  
18 things that can happen now. If there's  
19 practices that you know are in the ground that  
20 weren't accounted for, if they were put in the  
21 ground after January 2006, that's not a model

1 problem, that is a data problem, that we  
2 didn't give the model accurate information.  
3 So that could be fixed.

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

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

1 better model than it would have been  
2 otherwise.

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

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

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

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

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

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

21                   The easiest thing is to go in and

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

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

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

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

17 So basically you submit the data  
18 that says, you know, here is what you see in  
19 these four pages published in the peer-review  
20 literature, here is the numbers that they  
21 provide for this BMP, and we think that you

1 need to look at this and use those numbers or  
2 some combination of those numbers to start  
3 validating these BMPs and providing credit.

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

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

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

1 record with that.

2 MS. FINNEY: Thank you.

3 MR. LIPPINCOTT: Wally Lippincott.

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

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

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

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

19                   Therefore, they have created a  
20 mechanism for additional developers to hook  
21 up, get that power capped and using that

1 strategy.

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

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

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

1 required legally to report what is happening.

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

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

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

17           So there is a little bit, depending  
18 on the particular sector, as to how it's being  
19 tracked. But as to where there is a permit,  
20 it will be regulated, which means inspected  
21 and enforced and where there is not a permit,

1 it's being tracked and verified.

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

8 MR. ESKIN: You mean the storm water  
9 guidance?

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

12 MR. ESKIN: I don't --

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

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

20 There's two separate processes going  
21 on. One is writing the permits, okay? EPA

1 Region 3 Water Protection Division in  
2 Philadelphia is working with our water  
3 management division on that.

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

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

20 MR. MCGINNIS: Wayne McGinnis,  
21 farmer. Some courts have ruled that the very

1 broad-based setback requirements of all  
2 terrain would be considered a taking and also  
3 would be a zoning issue and therefore invalid.  
4 What do you have to say about that?

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

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

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

16 MR. MCGINNIS: Yes.

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

1 all voluntary proper practices.

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

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

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

21 So basically just took the whole air

1 issue off the top and EPA is responsible for  
2 getting those reductions out of the Clean Air  
3 Act regulations that they're moving. I think  
4 it's called cross-state something now, CSAR.  
5 So they are responsible for that portion.

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

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

1 MS. MCGINNIS: Do you perceive that  
2 it will go into our program, our state  
3 program?

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

16 So if these catalytic converters are  
17 more efficient because there is less sulfur in  
18 the gasoline, we'll actually get a very good  
19 reduction in the atmospheric generation that  
20 we can take credit for. We're looking at all  
21 of that.

1 MS. McGINNIS: What about the air  
2 over the bay where there is no cars?

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

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

21 MR. BARNABA: My name's Kevin

1 Barnaba. I'm the environmental health  
2 director for Harford County Health Department.  
3 I have a question related to septic systems.

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

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

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

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

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

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

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

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

20                    A developer comes in and let's say  
21 there's a failing septic system not too far

1 away, maybe you could get that developer, as  
2 part of his offsets, to build a community  
3 system that could encompass both his  
4 development and the adjacent development  
5 because if you're already putting in a system,  
6 it's pretty cost effective and so instead of  
7 upgrading those septic systems, you can  
8 connect it to a local community system that  
9 would be more cost effective than either  
10 connecting them to a bigger wastewater  
11 treatment plant or upgrading the individual  
12 septics.

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

18 MR. MILLER: My name's Gary Miller  
19 and I'm not a fan of the state government and  
20 I'm certainly not a fan of the EPA. And  
21 you're saying the EPA does not target

1 agriculture, but when it comes down to your  
2 farm, your family, and your livelihood that is  
3 affected, it certainly comes across that way.

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

8           Your model changes -- if our goal --  
9 and if the goals you set are met by, say,  
10 2020, will the EPA go away or will it just  
11 make it more stringent? I bet it won't go  
12 away.

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

1 to make that TMDL more stringent.

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

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

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

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

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

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

19                  MR. MILLER: Well, wait till you get  
20                  hit with a four and a half or five million  
21                  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.

1 And but there's nothing that we can do about  
2 that here tonight.

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

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

13 Okay. The WIP meetings, we had one  
14 in February. We're going to get together in  
15 September and go over all these things that we  
16 weren't given credit for. We never had no  
17 meeting. I've been on the WIP program since I  
18 was asked to be on the committee, and the  
19 first meeting that we had of the committee --  
20 and you know this, Bill -- I have never been  
21 contacted once about another meeting.

1 I don't know where you're getting  
2 your information on what we get credit for and  
3 what we don't get credit for. I just found  
4 out two weeks ago information about the CREP  
5 program which gives you credit for a lot of  
6 other conservation things that we do that we  
7 don't get credit for. This has been going on  
8 for years but I never knew about it.

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

14 Okay. The next thing. When you're  
15 talking about the bay loading, I want -- does  
16 anybody here realize that when the earthquake  
17 happened back a couple of months ago, a  
18 54-inch main sep coming out of Baltimore City,  
19 20 million gallons a day for 30 days raw  
20 sewage into the bay. Was that on the news?  
21 How many -- hold up your hands. How many knew

1 that? Okay. Was it on the news? No.

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

8 The EPA has got to leave us the heck  
9 alone. I don't know where -- I don't know how  
10 we're going to stop it but something's got to  
11 be done. You're talking about -- he made  
12 mention about people being sued and, John, you  
13 were in on this just a year or so ago and the  
14 efficiency, the money that you're dumping into  
15 this and you're not accomplishing nothing.  
16 You've spent \$20 billion to get to where we  
17 are today and you're still saying the bay is  
18 no better.

19 You went after a local farmer for  
20 two years, costs I don't know how many  
21 millions of dollars, and Judge Cavanaugh fined

1 him 20 bucks because he did everything he was  
2 supposed to do. But you and people in the  
3 Maryland EPA went after him, went after him,  
4 went after him and just about drove the poor  
5 man insane and bankrupted him, almost  
6 bankrupted him.

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

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

14 Septic tanks. There is no better  
15 way to deal with wastewater than septic tanks.  
16 I don't care what anybody says. My well is  
17 tested every year by the state with my well  
18 permit. My well is 40 feet deep. My septic  
19 tank was put in in 1920 when they built my  
20 house. It is 60 yards from my well. I have  
21 perfect water because it works. Yes, some of

1     them may fail but you can't make these blanket  
2     assessments.

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

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

18                   In the next -- by 2050, agriculture  
19    of the world is going to have to produce as  
20    much feed for human consumption in the next 40  
21    years as it has in the past 10,000 years, in

1 the next 40 years. How are we going to do  
2 that if we keep constantly have to play these  
3 silly games.

4 The meeting that we had in Bel Air,  
5 you were there and I talked to you then.

6 We're going to get credit for these things?

7 MR. RHODERICK: Yes.

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

14 We don't pollute intentionally. We  
15 don't pollute -- we can't. We can't afford  
16 it. Every drop of manure that we produce, we  
17 utilize for our crops. Every time we go out  
18 on the field, we're getting scrutinized. Oh,  
19 we can't spread manure before March 1st. Now,  
20 my neighbor is spreading sludge. He's been  
21 spreading sludge for two weeks. When you call

1 the Maryland DA, complaining, do you know what  
2 they tell me? It's permitted.

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

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

19 I'm sure things break on your farm  
20 and then you fix them. Well, this broke,  
21 probably was 50 or 60 or 70 years old. It

1 broke in the earthquake, certainly that  
2 couldn't be predicted, and they fixed it as  
3 quickly as they could. We were spending two  
4 billion dollars, more than that, across the  
5 state to fix these things that happen more  
6 frequently.

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

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

1                   And I think they're working right  
2                   now if I'm not mistaken to make the sludge  
3                   regulations and the manure regulations to some  
4                   extent consistent with each other.

5                   So we were trying to pull this all  
6                   together. It's complicated. It's difficult.  
7                   It's expensive.

8                   As far as, you know, getting the EPA  
9                   off our backs, you need to talk to Congress  
10                  about that. They passed the Clean Water Act.  
11                  We're a country of laws. It says that we need  
12                  to do these things and EPA is just doing its  
13                  job. It's doing what Congress told it to do.

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

19                  I can tell you that through the  
20                  Clean Water Act, I mean, think back to why it  
21                  happened. Lake Erie is catching on fire. Our

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

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

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

21           If we missed you, I'm sorry about

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

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

11 MR. THARPE: Yes, Pennsylvania,  
12 49,000 farmers in the Chesapeake Bay, 30,000  
13 of them didn't have conservation plans.

14 MR. RHODERICK: We've got over 68  
15 percent conservation plans in Maryland. I  
16 mean, you look -- as you say, look at the  
17 cover crops you've got. We are so far --  
18 we're showing you the numbers up there, as you  
19 said, like raw load, we're making almost 10  
20 million pounds a year from what you're already  
21 doing and we only have to do four million

1 more. I think Pennsylvania, they have got to  
2 come up with a plan for 12 million pounds.

3 I mean, we are so far ahead and, you  
4 know, there is a goalpost and I think with the  
5 plan we've got in place, we can beat it. That  
6 is huge right there.

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

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

13 MR. RHODERICK: Me personally?

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

21 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.

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

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

20                   MR. LE GARDEUR: And I wanted to  
21 mention I come from a family of farmers in

1 Louisiana and these farmers, they're asking  
2 about wastewater treatment plant loads and  
3 storm water loads.

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

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

18 MR. ESKIN: These are minor plants?

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

21 MR. ESKIN: And we looked at that

1 and it's still on the table. In fact, we put  
2 into the WIP that we would upgrade five plants  
3 statewide. The task force recommended we do  
4 ten. We're still looking at that.

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

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

17 MR. LE GARDEUR: I would love for  
18 you to push Baltimore County to look at  
19 upgrading the minor plants that are in  
20 Baltimore County because we have seen so many  
21 beach closures at Haviland and down towards

1 the Bird River, Lower Gunpowder in the summer  
2 and fall.

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

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

14 MR. ESKIN: I was --

15 MR. LE GARDEUR: -- a consent  
16 decree, Baltimore County consent decree.  
17 They're not supposed to have any spills by  
18 2020 but it happens every time it rains.

19 MR. ESKIN: Usually, the spills are  
20 not at the plant themselves. They're in the  
21 piping and transport system and that's what

1 that million dollars was going to fix.

2 MR. LE GARDEUR: Okay. All right.

3 Thank you.

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

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

8 MR. STEWART: Yes, I think for  
9 Baltimore County the price tag is somewhere  
10 around 1.2 million dollars. We've got until  
11 2020 to get all of those upgrades in and there  
12 are still some without consent decree. And  
13 the city has until 2014. They actually had  
14 the consent decree before we did.

15 The major focus originally is on the  
16 system itself, looking at finding the leaks  
17 and so forth but it's also on the pumping  
18 stations. There's 120 some odd pumping  
19 stations. They're not treatment stations but  
20 because sewage flows downhill, basically  
21 you've got to get over the hill to get it to

1 the treatment plant and so they've put a lot  
2 of progress on the pumping stations, getting  
3 those up and they have actually prioritized  
4 the systems based on age.

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

17           In terms of the bacteria at the  
18 beaches, storm water runoff, if you fix all of  
19 the sanitary sewer and you don't have any  
20 leaks, you're still going to have bacteria  
21 problems at the beaches. That is just because

1 we have wildlife, we have pets, we have other  
2 sources of bacteria, you're going to have  
3 [inaudible].

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

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

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

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

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

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

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

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

18 MS. POWERS: Jen Powers, Gunpowder  
19 Valley Conservancy. This goes back to the  
20 farmer's comment about just learning about  
21 CREP. The 2008 Farm Bill had a lot of

1 programs for conservation and money for  
2 farmers but what I had learned was that there  
3 wasn't enough staff, I guess, maybe to  
4 implement at the ag district or [inaudible].  
5 But just in the framework to get the word out  
6 to advise farmers on this money is available  
7 to them.

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

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

19 At this point, the best we do is  
20 when a farmer comes in to us and says I heard  
21 about this and I am interested in it, would

1 you come out and look. We have a backlog in  
2 the office of people like that.

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

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

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

20 He recognized that, and if you  
21 notice, right now there is in the legislation

1 under the trust fund, they would potentially  
2 provide us enough funding to hire 30  
3 additional people. Sounds like a big number  
4 but that's about one additional person in each  
5 conservation district, but that's a great  
6 start.

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

12 MS. POWERS: And what are you doing  
13 to protect those benefits that were in the  
14 2008 that are maybe cut in the 2012?

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

21 MS. HORSEY: John, we have those

1 people that are out there doing CREP outreach  
2 now.

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

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

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

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

20 MR. WILLS: A question on that. Is  
21 there any type of outreach that's actually

1 going on to educate the, I'm going to call it  
2 the absentee landowner. That is the ground  
3 that is being tilled by a farmer, owned by  
4 someone else, as to having, like I said, a  
5 longer term lease contract on that land.

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

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

17 MR. RHODERICK: For the absentee  
18 landowners, I mean, obviously if you lease  
19 ground, you've got the guys here, as you say  
20 leased ground is all about, you know, who is  
21 going to pay the most. So, you know, if I am

1 a landowner, you know, I've got a couple of  
2 farmers who want to lease it, do I want to tie  
3 myself into somebody and pony up, no.

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

7 The other question I have is -- I am  
8 not sure you can answer this one either. If  
9 you're doing an actual cost share BMP, it was  
10 brought to my attention that if the profit is  
11 actually, the cost share portion is over the  
12 \$5,000, that there's actually attachment to  
13 the deed of the landowner's property that runs  
14 that away from the BMP; is that correct?

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

17 MR. HINES: Five.

18 MR. WILLS: I had talked with  
19 several people this weekend and knows the  
20 program and they're not aware of that at all.  
21 And actually those who were aware, that is a

1 real -- very negative that if you're a  
2 landowner, have something attached to the deed  
3 of the property, they're very concerned about  
4 that. I just see that as a major aspect of  
5 going forward in the cost share programs but  
6 that is the --

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

14 MR. WILLS: Okay.

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

18 On the trading of nutrient values  
19 that are appropriate, does the -- I can see it  
20 in the aggregate how it benefits and how it's  
21 an escape valve for further development, but

1 is there any basin or county constraints on  
2 the trading so that the credits and so forth  
3 in the aggregate also get reflected at the  
4 point at which the use is being developed? Do  
5 you follow what I am saying on that?

6 MR. RHODERICK: Are you talking  
7 about delivery ratios or equating a pound as a  
8 pound?

9 MR. SWACKHAMER: Well, yes. If in  
10 the aggregate you're looking at basins or a  
11 large territory, the nutrient trading will  
12 work very well, I think. But then if it's an  
13 adjacent property to me, and it more than  
14 offsets anything that I've ever done because  
15 all of a sudden they've benefited septic tanks  
16 in another county but they're not working on  
17 the stream that flows through my property, how  
18 do you get -- it's distorted data, I think,  
19 after a while.

20 MR. RHODERICK: We have in -- the  
21 tool we use, it looks at both where the

1 buyer's located and where the seller is. So  
2 I'll say if you're a buyer, keep it simple,  
3 you know, here in Baltimore County. But if  
4 you're buying, let's say, in Washington  
5 County --

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

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

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

19 MR. ESKIN: Well, trades are limited  
20 to -- I mean, there is -- if there is  
21 something that is going to cause degradation

1 of water, that trade would not be allowed. So  
2 basically, and because John has the  
3 thresholds, you need to have a certain -- you  
4 need to have done a certain amount towards the  
5 restoration goal, you can't -- you'll be in  
6 good shape locally as well.

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

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

21 In the past meetings, in the ag work

1 group meetings, we've talked about  
2 contingencies and I assume the contingencies  
3 are if we don't meet our goals, but when will  
4 they kick in? Will they kick in at 2017, at  
5 2025? Who establishes those contingency plans  
6 and, you know, then who has enforcement --

7 MR. ESKIN: I can't give you a  
8 definite answer. I think that the way it will  
9 likely work is that, well, we like to be  
10 working with counties. I'm sure John will  
11 continue working with you conservation tracker  
12 to know where we are. I would expect that the  
13 first point at which we talk seriously about  
14 consequences would be the 2013 milestones, and  
15 unless something goes through in the General  
16 Assembly, now basically you can't do anything  
17 unless it's all paid for. Conowingo can't  
18 open its gates, Conowingo can't close its  
19 gates, you know, it's all over the place.

20 If we can have something like that,  
21 and gave copies of that to the media, they

1 would say, well, even though you've passed  
2 this, you're not going to be able to meet your  
3 goals, we're going to start recommending  
4 consequences and tell you what to do.

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

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

19 They don't want to impose  
20 consequences. They really, really don't.  
21 They know it would probably end up in court.

1 It would be a mess for everybody. They'd much  
2 rather work with us, cooperatively, to make  
3 the progress.

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

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

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

21 MR. THARPE: We've already lost

1 CREP, I mean, you know, Baltimore [inaudible]  
2 hasn't allocated to anything and if it does,  
3 it's going to be connected to an endangered  
4 species. So I have watched three to five  
5 projects because of that funding program not  
6 being set up the same way as it was last year.

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

9 MR. THARPE: Good luck.

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

18 And another sort of related  
19 question. A lot of the county plans didn't  
20 have any funding mechanisms or didn't have  
21 what I would consider adequate funding

1 mechanisms. How do you submit a statewide  
2 plan without knowing how these things are  
3 going to be funded?

4 MR. ESKIN: There is actually a fair  
5 amount of funding in total, not nearly enough  
6 for what we need, but there is a fair amount.  
7 Part of the reason, not going into details, is  
8 that it's based upon [inaudible] is not really  
9 good for us, with us having submitted in March  
10 in the General Assembly though it's not due  
11 until the first week in April, but the Bay  
12 Restoration Fund, I mean, they're talking  
13 about now, you know, it was do we double, do  
14 we triple it. Some even said quadruple it.

15 They may probably have to split the  
16 baby here and go somewhere about two and a  
17 half million. Then we need to look at the  
18 budget. What's in the trust fund. Where we  
19 actually have asked EPA for some more funding  
20 and they said, yes, we'll talk to you  
21 [inaudible] more funding.

1                   And I know we have been -- we've  
2 gone down and spoke with the Undersecretary of  
3 Agriculture about this, about the WIP and  
4 about the need for funding among other things.  
5 Agriculture -- the federal Department of  
6 Agriculture actually has helped out in Anne  
7 Arundel County with some of their upgrades to  
8 wastewater treatment plants under the Rural  
9 Development Program.

10                   So there is funding out there, the  
11 state revolving loan funds. I think I said  
12 earlier that some of those funds are being  
13 used for grants now. There are opportunities.  
14 This is economically -- everybody's getting  
15 hammered: the local, state and the federal  
16 level. So the way I like to look at it is  
17 what we need to do now is to make progress.  
18 Don't worry about taking off the whole, you  
19 know, seven-billion-dollar bite, ask yourself  
20 what can we do in this upcoming budget. How  
21 do we show continuing, incremental progress.

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

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

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

18                   MR. ESKIN: That's exactly right.  
19    There are unknowns. These are bad --  
20    economically, it's a bad time to start this,  
21    but every other time we try to make progress,

1     there was, oh, not now, we can't afford it  
2     now. It's been spent, it's too complicated.  
3     Until finally, you know, it just all exploded  
4     and it happened to explode at the very worst  
5     possible time.

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

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

19            MR. MCGINNIS: The greatest loading  
20    just seems to be on the Eastern Shore -- Wayne  
21    McGinnis, farmer. Greatest loading is on the

1 Eastern Shore, the Potomac watershed. Are  
2 those farms required to have a proportional  
3 reduction in loading as compared to Baltimore  
4 County?

5 MR. RHODERICK: Yes. I went -- a  
6 couple of you are familiar, we actually showed  
7 previously some charts and you see like -- I  
8 want to say Caroline County, the load  
9 reduction they were looking at was almost a  
10 million pounds, Kent County was a million  
11 pounds. Whereas in Baltimore County, based on  
12 the amount of land acres you had and  
13 animals -- come on, Jim, help me, was it  
14 100,000 or 200,000 pounds for Baltimore  
15 County?

16 MR. THARPE: 235.

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

21 MR. AARON: [Inaudible.]

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

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

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

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

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

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

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

15           Even now, though, we use an average  
16    period of like a ten-year hydrology, so  
17    that's, you know, not affected by year to  
18    year. We may have to move that ten-year  
19    period up to capture more variation than we  
20    had. You know, 15 years ago with ten-year  
21    hydrology we were using in this iteration of

1 the model. But yes, I mean, we are going to  
2 get more sediment into the water as the water  
3 level goes up and we have a rising water  
4 level.

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

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

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

14 MR. ESKIN: Yes.

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

19 MR. ESKIN: We have been working on  
20 nutrients for 20 plus years. We've really  
21 haven't been working on sediment for nearly

1 that long and I'm sure we're going to see some  
2 improvements in the way we handle sediments in  
3 the revision of the model in -- by 2017.

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

17 That is where that will fall apart.  
18 So now D.C. might have a problem with the Blue  
19 Plains Committee, but on the other hand,  
20 they're paved over so where is the sediment  
21 going to come from.

1           So it might be a load problem but  
2     statewide we don't think it's going to be too  
3     much of an issue. Overall, we'll get a better  
4     approximation of that in 2017, I think.

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

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

17           And you're to be commended for it.

18           COURT REPORTER: Thank you.

19           (Applause.)

20           MR. ESKIN: By the way, the reason  
21    that she's doing that is so that we can post a

1 transcript so that people who were not able to  
2 attend tonight can get online and see what  
3 went on and maybe they can form their own  
4 questions. They won't be here but at least  
5 they'll be posted on the Agro-Ecology's Web  
6 site.

7 MR. AARON: I only have two more.

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

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

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

18 MR. RHODERICK: If you actually look  
19 at the current trading program policy, it  
20 talks about, as you said, we're very concerned  
21 not just to have a one-on-one trade, so right

1 now we're required for trading ten percent  
2 over. So if you were the buyer and you needed  
3 a thousand credits, we're going to make you  
4 buy 1100. You get your thousand but the other  
5 ten percent goes through, the good with the  
6 bad [inaudible].

7 MR. ESKIN: That's on the trading.

8 MR. RHODERICK: That's on the  
9 trading.

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

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

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

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

21 SPEAKER: Yes. It's my

1 understanding that the offset policy is about  
2 a year away from being fully developed.

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

12 MR. AARON: A draft.

13 MR. ESKIN: Yes, a discussion piece.

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

1 December 31st, 2012?

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

10 MR. AARON: Thank you for your  
11 patience.

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

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

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

19                   That's not to say that there won't  
20 be an enforcement action but it's not going to  
21 be a part of the WIP per se. Basically, we're

1 looking longer term where we are on loads. So  
2 you would not be debited, if you will.

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

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

17 SPEAKER: Did the variables account  
18 for it?

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

1 variation of the limitation efficiency and the  
2 soil, it's just minor.

3 SPEAKER: Except in the case of  
4 the --

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

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

15 MR. ESKIN: And it does get  
16 captured. There's something called a  
17 calibration the bay program does with the  
18 model. The model says you should have -- at  
19 this time of the year in this location, you  
20 should have this amount of concentration of  
21 nutrients in the water. That is the place

1 where we monitor and then we compare the model  
2 projections to the monitored data. So it's a  
3 ground-truthing for the model and they make it  
4 match up.

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

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

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

21 MR. KLINGELHOFETZ: Methane,

1 ammonia. There could be several forms of  
2 nitrogen that come off in a gaseous state.

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

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

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

1 interact with anything.

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

6 MR. ESKIN: Well, once it's an N<sub>2</sub>  
7 gas, the primary way that's going to get back  
8 into nitrates, is just the lightning, because  
9 when the lightning heats it up it gets  
10 combustion, and the oxygen in the atmosphere  
11 combines with the nitrogen in the atmosphere  
12 to create this N<sub>2</sub>.

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

20 So that is why, under the Clean Air  
21 Act, we're also trying to control nitrogen.

1 And methane is a greenhouse gas so it has  
2 nothing to do with the bay.

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

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

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

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1 STATE OF MARYLAND

2 HOWARD COUNTY

3 I, Dawn Michele Hyde, a Notary

4 Public of the State of Maryland, Howard

5 County, do hereby certify that the

6 above-captioned proceeding took place before

7 me at the time and place herein set out.

8 I further certify that the

9 proceeding was recorded stenographically by me

10 and this transcript is a true record of the

11 proceedings.

12 I further certify that I am not of

13 counsel to any of the parties, nor an employee

14 of counsel, nor related to any of the parties,

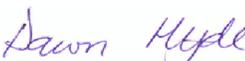
15 nor in any way interested in the outcome of

16 the action.

17 As witness my hand and seal this 1st

18 day of March, 2012.

19

  
Dawn M. Hyde

20

21

**DAWN M. HYDE  
NOTARY PUBLIC  
HOWARD COUNTY, MD**

My Commission Expires 10/7/2015

<b>A</b>			
<b>Aaron</b> 43:5,12,17 54:12,12 117:10,10 122:21 123:3,8 125:5,11,15 128:7 128:10 130:12,14 131:10	136:17 138:4 <b>actual</b> 40:4 71:14 96:7,9,18 100:6 103:2 109:9 <b>adaptive</b> 24:3 <b>add</b> 37:16 51:4 56:17 <b>added</b> 21:8,15 120:6 <b>adding</b> 137:16 <b>additional</b> 32:19 34:8,9 37:9 42:20 51:9 52:7 57:15 65:20 72:17 106:3 106:4 <b>address</b> 54:16 60:6 64:20 74:20 129:20 132:13 <b>addressed</b> 15:11 54:15 59:17 63:21 64:10 <b>adds</b> 12:10,16 <b>adequate</b> 117:21 <b>adjacent</b> 78:4 111:13 <b>adjust</b> 46:19 <b>adjusted</b> 56:3 <b>Administration</b> 2:4 <b>Administrator</b> 2:8 <b>admitted</b> 85:4 <b>adopt</b> 72:15 <b>advise</b> 104:6 132:4 <b>afford</b> 88:15 121:1 <b>ag</b> 26:9,10,12 27:3,9 27:12 29:16 30:16 32:10 44:16 45:5,5 46:8 47:1 48:16,19 51:7 54:3 56:8 60:13 64:7 65:3 104:4 113:21 122:18 131:14 <b>age</b> 101:4 <b>agencies</b> 81:5 <b>aggregate</b> 110:20 111:3,10 112:16 <b>aggressive</b> 31:21 36:19 39:14 41:5 44:17 105:18 <b>ago</b> 14:1 70:11 84:4	84:10,17 85:13 124:20 <b>agree</b> 82:14 132:2 <b>agreed</b> 55:5 69:6 <b>agreement</b> 6:10,17 9:6 121:17 <b>agricultural</b> 1:8 3:19 23:6 26:1 28:11 35:21 37:4 63:9 79:5 <b>agriculture</b> 2:9 18:17 25:20 26:19 28:9,14,17 33:12 34:21 35:3 36:1 38:15 39:7,19 44:2 44:5 53:11 55:9 57:15 64:15 65:12 70:20 76:17 79:1 80:7 81:4 87:18 90:14 119:3,5,6 <b>Agro-Ecology</b> 4:5,6 4:13 <b>Agro-Ecology's</b> 128:5 <b>ag's</b> 29:1 <b>ahead</b> 18:12 94:3 <b>air</b> 71:8,18,19,21 72:2,8,9,12,15,19 74:1,3,10,20 88:4 137:15,20 <b>Allegany</b> 47:9 <b>allocated</b> 117:2 <b>allocates</b> 7:4 <b>allocating</b> 71:19 <b>allocation</b> 5:14,18,19 7:12,12,15 21:1,18 76:20 77:9,15 <b>allocations</b> 10:11 23:16 68:5 76:13 97:8 <b>allow</b> 59:11 <b>allowed</b> 32:13 36:12 113:1 <b>allows</b> 10:9 <b>alluded</b> 9:5 30:13 <b>alter</b> 123:9	<b>alternative</b> 77:17 <b>alternatively</b> 65:14 <b>amiss</b> 115:8 <b>ammonia</b> 135:20 136:1,6,14 <b>amount</b> 5:10 24:9 37:18 75:7 77:2,3 79:19,19,21 113:4 118:5,6 122:12,19 126:9 134:20 <b>analysis</b> 106:7 <b>angle</b> 72:12 <b>animal</b> 47:4,6 <b>animals</b> 38:16 122:13,19 <b>Annapolis</b> 69:6,6 72:11 <b>Anne</b> 119:6 <b>annual</b> 35:13 67:8 107:15,17,18 108:8 <b>answer</b> 3:13 4:1 91:14 104:13 107:13 109:8 113:20 114:8 123:15 <b>ante</b> 80:18 <b>anybody</b> 21:13,20 62:1 76:20 84:16 86:16 103:16 <b>anymore</b> 9:12 16:2 <b>apart</b> 6:7 126:17 <b>apologize</b> 40:18 42:9 43:16 49:1 58:3 60:10,11 83:8 <b>appendices</b> 17:2 <b>appendix</b> 14:11 <b>Applause</b> 127:19 <b>applied</b> 60:17 <b>appreciate</b> 4:11 <b>approach</b> 21:17 45:14 <b>appropriate</b> 19:17 110:19 <b>approved</b> 130:21 <b>approximation</b> 127:4

<p><b>April</b> 118:11  <b>area</b> 16:6 54:20              74:18 80:12  <b>areas</b> 48:1 54:21              81:4 89:13 90:16              90:20  <b>Arundel</b> 119:7  <b>aside</b> 20:8  <b>asked</b> 83:18 103:16              118:19  <b>asking</b> 11:3 61:3              97:1 133:9  <b>asks</b> 30:1  <b>aspect</b> 102:11,20              110:4  <b>Assembly</b> 20:11              114:16 118:10              130:9  <b>assessment</b> 12:2              105:6 132:3  <b>assessments</b> 52:4              87:2,4  <b>associated</b> 126:15  <b>Association</b> 60:4  <b>assume</b> 43:9 114:2              135:10  <b>assuming</b> 115:5  <b>assumption</b> 132:12  <b>assumptions</b> 6:5,6  <b>assurance</b> 7:11 8:1  <b>assurances</b> 130:20  <b>assure</b> 51:18  <b>assured</b> 9:15  <b>atmosphere</b> 5:21              136:15 137:10,11              137:17  <b>atmospheric</b> 73:19  <b>attached</b> 14:11 110:2  <b>attachment</b> 109:12  <b>attack</b> 106:19  <b>attend</b> 128:2  <b>ATTENDEES</b> 2:1  <b>attention</b> 81:3              109:10  <b>audience</b> 46:11  <b>August</b> 34:20 36:17</p>	<p>45:20  <b>authority</b> 123:4  <b>authorizations</b> 120:8  <b>available</b> 8:5 17:4,9              27:19 45:7 71:16              76:11 104:6 108:10              132:10  <b>average</b> 35:12 124:6              124:7,15  <b>aware</b> 48:6 61:19              70:5 71:8 94:8              103:13 109:20,21</p> <hr/> <p style="text-align: center;"><b>B</b></p> <hr/> <p><b>baby</b> 118:16  <b>back</b> 11:7 13:5 16:17              21:20 22:1 36:12              44:21 53:10 59:20              61:11 65:11 84:17              88:12 91:20 95:15              97:15 103:19 125:6              134:10 136:4 137:7  <b>backed</b> 17:19 130:7  <b>background</b> 28:4  <b>backing</b> 58:15  <b>backlog</b> 105:1  <b>backs</b> 91:9  <b>bacteria</b> 99:4 101:17              101:20 102:2,7              136:12  <b>bacterial</b> 99:5  <b>bad</b> 120:19,20 129:6              137:18 138:8  <b>balanced</b> 6:14  <b>ballgame</b> 121:14  <b>Baltimore</b> 1:7,20              10:15 16:18 28:20              80:9,10 84:18 85:3              95:20 97:6,9,12              98:18,20 99:16              100:9 102:14,20              107:7 110:16 112:3              117:1,11 122:3,11              122:14  <b>bankrupted</b> 86:5,6  <b>banner</b> 17:11</p>	<p><b>bare</b> 4:17  <b>Barnaba</b> 74:21 75:1  <b>barns</b> 34:7,9  <b>barnyard</b> 34:5  <b>based</b> 34:13,17 36:5              55:11 58:9,16              70:21 101:4,9              106:7 116:18 118:8              122:11 125:15  <b>basic</b> 17:20  <b>basically</b> 5:19 6:13              9:12 14:3 22:2              23:12 24:13 25:12              29:18 34:14 45:4              50:17 54:19 55:4              62:17 68:18 69:8              71:15,21 74:9 77:1              81:7 82:15 90:7              99:6 100:20 102:16              104:14 113:2              114:16 126:6              132:17,21 136:11  <b>basics</b> 4:14  <b>basin</b> 14:12,17,20              15:5 40:16,17 41:2              41:3 54:14 55:6,8              111:1 126:12              133:15  <b>basins</b> 14:13,15 19:3              111:10  <b>basis</b> 24:13 107:15              108:8  <b>bass</b> 92:2  <b>bay</b> 3:6 5:4,5 6:1,8              6:10,17,19 9:6              17:21 18:2 20:6              23:6,13,14 28:13              34:20,20 35:3,5,10              35:11,15 36:18              45:15 46:4 50:16              50:19 53:18 54:18              56:1 62:15 67:11              69:5 74:2 75:8              79:15,19 80:8              84:15,20 85:17              88:12 89:12 93:12</p>	<p>112:13 118:11              121:13 134:17              137:18 138:2  <b>baywide</b> 6:16 134:7  <b>beach</b> 98:21 99:10  <b>beaches</b> 101:18,21  <b>bear</b> 128:11  <b>bearing</b> 29:6  <b>beat</b> 94:5  <b>becoming</b> 124:3  <b>Bel</b> 88:4  <b>believe</b> 42:1 44:9              46:7 123:16  <b>benefited</b> 111:15  <b>benefits</b> 44:5 50:6              106:13 110:20  <b>best</b> 12:6 21:16 33:7              63:9,21 66:13              91:14 92:12,16,18              104:19 109:5              120:16  <b>best-case</b> 96:5  <b>bet</b> 79:11  <b>better</b> 3:13 7:21 11:3              25:3,4 32:14 57:17              59:21 60:1 72:12              77:18 85:18 86:14              94:19 127:3  <b>beyond</b> 50:20 51:3              51:10 55:8 93:4              131:16  <b>BIDs</b> 107:11  <b>big</b> 11:11 18:6 29:13              39:9 102:11 106:3              133:11  <b>bigger</b> 78:10  <b>bill</b> 46:11 49:10              55:13 62:1 80:21              83:20 93:8 103:21              104:11 106:18              113:17 135:15  <b>billion</b> 80:18 81:17              85:16 90:4  <b>bills</b> 121:8  <b>biologically</b> 136:8,16              138:3,4,6</p>
---	---	--	--

<p><b>Bird</b> 99:1  <b>bit</b> 4:18 14:16 20:9              54:16 62:11 67:17              80:4 101:15  <b>bite</b> 119:19  <b>blanket</b> 87:1  <b>Blue</b> 117:10 126:18  <b>BMP</b> 12:10 37:13              49:14 56:13 57:19              61:5 62:4,21              107:16 109:9,14  <b>BMPs</b> 33:11,15 37:9              38:5,8,18 42:20              44:1 46:16 49:4,9              56:11,11 57:2              60:15 61:5 62:13              63:3,15 68:11  <b>board</b> 63:8 93:8 95:3  <b>body</b> 5:11,12 135:11  <b>bones</b> 4:17  <b>boots</b> 27:5  <b>border</b> 74:8  <b>bottom</b> 22:7 138:3  <b>box</b> 78:13  <b>brand-new</b> 101:13  <b>break</b> 89:16,19  <b>breaks</b> 70:14  <b>BRF</b> 67:11  <b>brief</b> 20:4  <b>bring</b> 124:12  <b>bringing</b> 27:14  <b>brings</b> 53:10  <b>broad</b> 21:11 72:19              133:13  <b>broadly</b> 62:12  <b>broad-based</b> 70:1              133:16  <b>broke</b> 55:1 89:15,20              90:1  <b>broken</b> 42:7 132:16  <b>Brother</b> 133:12  <b>brought</b> 25:10 50:1              56:4 109:10  <b>bucks</b> 86:1  <b>budget</b> 19:10 118:18              119:20</p>	<p><b>budgets</b> 19:11,13  <b>buffers</b> 42:12,18,21  <b>build</b> 78:2 89:15  <b>building</b> 110:17  <b>built</b> 6:3 86:19  <b>bullshit</b> 88:9  <b>bunch</b> 136:11  <b>Bureau</b> 56:3 107:8  <b>business</b> 38:17 70:11              95:18  <b>busy</b> 42:11  <b>buy</b> 129:4  <b>buyer</b> 112:2 129:2  <b>buyers</b> 112:6,8  <b>buyer's</b> 112:1  <b>buying</b> 112:4</p> <hr/> <p style="text-align: center;"><b>C</b></p> <hr/> <p><b>C</b> 3:1  <b>calculate</b> 34:12  <b>calculated</b> 35:11  <b>calculations</b> 133:7  <b>calibration</b> 134:17              135:8,14  <b>calibrize</b> 101:8  <b>call</b> 6:3 31:21 69:15              88:21 108:1 116:18  <b>called</b> 7:10 12:2 37:4              38:1 66:20 67:5              72:4,16 96:14              134:16  <b>calls</b> 8:2  <b>Calvert</b> 1:19  <b>capacity</b> 44:7  <b>capital</b> 104:16  <b>capped</b> 50:17,18              65:21  <b>capture</b> 49:14              124:19 135:7,8,9              135:17 137:15  <b>captured</b> 16:3              134:16  <b>capturing</b> 57:6              135:13  <b>care</b> 10:4 56:18              86:16 89:5 131:19</p>	<p><b>Caroline</b> 122:8  <b>carrying</b> 18:13  <b>cars</b> 72:16 74:2  <b>case</b> 63:20 70:10              113:8 123:9 130:17              134:3  <b>cases</b> 21:2 43:12              46:14 101:11,12  <b>catalyst</b> 73:10,13  <b>catalytic</b> 72:16 73:13              73:16  <b>catching</b> 91:21  <b>categories</b> 64:6  <b>cause</b> 112:21 127:10              136:20  <b>caused</b> 113:14  <b>Cavanaugh</b> 85:21  <b>caveat</b> 31:10  <b>Cecil</b> 16:18  <b>Center</b> 1:8 4:5,5,13  <b>certain</b> 6:5 33:15              48:9 76:9 106:18              113:3,4  <b>certainly</b> 10:15              63:13 76:5 78:20              79:3 90:1,15  <b>certification</b> 51:16  <b>certify</b> 139:5,8,12  <b>cesspool</b> 92:1  <b>cetera</b> 27:13 60:16  <b>chair</b> 26:5  <b>chance</b> 115:9  <b>change</b> 16:5 62:5              104:8 123:11,17              133:20 136:13  <b>changed</b> 36:20 123:6  <b>changes</b> 14:6 24:2              37:1 44:18 59:4,5              79:8 137:3  <b>changing</b> 87:6,11              94:19 115:16  <b>chart</b> 44:14  <b>charts</b> 122:7  <b>chart's</b> 43:4  <b>cheap</b> 75:21  <b>cheaper</b> 77:11</p>	<p><b>check</b> 9:7,13 135:14  <b>checking</b> 101:6  <b>chemical</b> 138:8  <b>chemistry</b> 136:4  <b>Chesapeake</b> 93:12  <b>choose</b> 76:12  <b>Choptank</b> 28:18  <b>chose</b> 65:14  <b>cite</b> 89:14  <b>citizens</b> 11:19,20  <b>city</b> 80:10 84:18              89:18 100:13  <b>civil</b> 127:8  <b>clean</b> 7:1 72:2,15              81:1 91:10,20              137:20  <b>clear</b> 7:16  <b>clearly</b> 31:20 116:16  <b>click</b> 17:11  <b>climate</b> 123:10,17  <b>close</b> 52:12 79:17              83:10 114:18  <b>closely</b> 68:19  <b>closer</b> 57:6  <b>closing</b> 59:7  <b> closures</b> 98:21 99:3              99:10  <b>Cockeysville</b> 1:9  <b>coin</b> 113:20  <b>cold</b> 95:19  <b>collateral</b> 82:19  <b>Colloquially</b> 20:1  <b>column</b> 34:4  <b>combination</b> 22:19              63:2  <b>combines</b> 23:9              137:11  <b>combustion</b> 137:10  <b>come</b> 6:11 13:5              21:19 22:1,15 23:5              24:14 25:16 31:4              42:17 53:19 58:11              66:17 77:8 78:16              81:7,13,18 88:12              90:11 94:2 96:21              105:1 115:13</p>
--	---	--	---

<p>116:11 122:13                  124:5 125:6 126:21                  127:6 130:6 131:15                  131:20 132:3 136:2  <b>comes</b> 51:11 52:15                  52:21 57:5 77:20                  79:1,3 81:15 103:9                  104:20 123:10                  135:17  <b>coming</b> 5:15 29:6                  51:19 52:14 74:5,7                  74:8,13 81:11                  84:18 120:14                  126:13 132:8  <b>commencing</b> 1:9  <b>commended</b> 127:17  <b>comment</b> 25:11                  63:11,12 103:20                  127:5  <b>comments</b> 3:15 8:8                  14:5  <b>Commission</b> 80:11                  139:21  <b>commissioners</b>                  52:10  <b>commit</b> 131:6,8  <b>commitment</b> 66:3,5  <b>committee</b> 83:18,19                  126:19  <b>communication</b>                  24:18 59:11  <b>communities</b> 80:17  <b>community</b> 27:3,17                  27:21 36:7 51:18                  52:20 77:18 78:2,8                  79:5 90:15  <b>compare</b> 135:1  <b>compared</b> 122:3  <b>complaining</b> 89:1  <b>complete</b> 20:20 21:3                  21:21 130:21  <b>completely</b> 39:3  <b>compliance</b> 96:2,6                  99:6 102:10,20  <b>complicated</b> 91:6                  121:2</p>	<p><b>component</b> 27:1,9                  50:14 51:8 65:5                  129:14 132:2  <b>components</b> 26:6,15  <b>computer</b> 13:14                  84:11  <b>concentration</b>                  134:20  <b>concept</b> 5:13 64:13  <b>conceptually</b> 26:5  <b>concern</b> 62:10  <b>concerned</b> 110:3                  128:20 136:5  <b>concerns</b> 64:13,21  <b>concluded</b> 138:13  <b>concrete</b> 77:16  <b>conditions</b> 96:6,8                  98:16  <b>confidence</b> 25:6  <b>confident</b> 124:11  <b>confirmation</b> 46:7  <b>Congress</b> 91:9,13  <b>connect</b> 78:8 97:15  <b>connected</b> 117:3  <b>connecting</b> 78:10  <b>connection</b> 130:15  <b>Conowingo</b> 114:17                  114:18  <b>consent</b> 99:15,16                  100:7,12,14 102:13                  103:6,13  <b>consequence</b> 11:1  <b>consequences</b> 9:16                  114:14 115:4,12,20                  116:11  <b>Conservancy</b> 68:3                  103:19  <b>conservation</b> 29:17                  31:14 32:12 35:7,8                  35:15 45:9 50:8                  52:13 53:3 55:14                  67:14 84:6 93:13                  93:15 104:1 106:5                  107:9 113:18                  114:11  <b>conservationists</b></p>	<p>133:5  <b>conservative</b> 6:6  <b>consider</b> 75:17                  117:21  <b>considered</b> 70:2  <b>consistent</b> 7:3 91:4  <b>constant</b> 134:14  <b>constantly</b> 11:3 88:2  <b>constraints</b> 111:1  <b>consumption</b> 87:20  <b>contacted</b> 83:21  <b>contingencies</b> 114:2                  114:2  <b>contingency</b> 114:5  <b>continually</b> 134:12                  134:12  <b>continuation</b> 64:15  <b>continue</b> 14:20 19:5                  19:15 114:11  <b>continued</b> 38:7  <b>continues</b> 85:5  <b>continuing</b> 6:14                  119:21  <b>continuity</b> 64:14  <b>contract</b> 108:5                  116:17  <b>contracted</b> 52:18  <b>contracts</b> 18:9  <b>control</b> 9:19 34:5                  126:6 137:21  <b>controller's</b> 110:8,12  <b>controls</b> 21:11 67:2  <b>convert</b> 138:9  <b>converted</b> 138:5  <b>converters</b> 73:13,16  <b>converts</b> 136:20  <b>cooperation</b> 115:6  <b>cooperatively</b> 116:2  <b>cooperators</b> 105:5  <b>copies</b> 114:21  <b>correct</b> 107:15                  109:14 115:10  <b>correction</b> 115:10  <b>corrections</b> 58:13  <b>correctly</b> 48:1 50:11                  55:2</p>	<p><b>cost</b> 16:10 21:12 76:6                  77:7,12 78:6,9 86:8                  98:9 109:9,11                  110:5  <b>costs</b> 85:20  <b>cost-effective</b> 77:5  <b>counsel</b> 139:13,14  <b>count</b> 120:5  <b>counties</b> 10:16,19                  11:14 14:21 19:12                  19:16,17 20:19                  29:16 32:8 45:5,6                  47:20 48:10 52:8                  52:10 114:10  <b>country</b> 91:11  <b>county</b> 1:7 10:14,15                  14:21 15:4,8 19:6                  21:20 26:17 27:10                  27:12 28:21 30:17                  34:2,2,7,16,16 45:9                  45:11 47:4,9,12                  52:10,11 54:14,15                  55:1,11,12,14 62:2                  65:5,13 66:9 75:2,7                  80:10 83:7 85:3                  95:20 97:6,9,13                  98:18,20 99:16                  100:9 102:15,21                  107:8 110:17 111:1                  111:16 112:3,5,10                  113:18 117:13,16                  117:19 119:7 120:5                  122:4,8,10,11,15                  122:20 139:2,5  <b>couple</b> 26:6 43:6,15                  48:9 49:7,10 50:9                  54:13 75:15 84:17                  107:4 109:1 117:11                  122:6  <b>course</b> 8:9 11:1                  92:15 116:20  <b>court</b> 61:1 70:6,9                  115:21 125:9                  127:18  <b>courts</b> 69:21 70:7  <b>cover</b> 21:1 37:15</p>
--	--	---	---

<p>50:1,3 60:16 93:17 107:18 108:7 <b>coverage</b> 10:12 <b>cows</b> 47:12 <b>crazy</b> 91:18 <b>create</b> 77:4 113:13 137:12 <b>created</b> 65:19 <b>credit</b> 8:15,17 13:2 33:17 50:4,11 55:20 56:2 57:9,11 63:3 72:8,17,20 73:20 83:16 84:2,3 84:5,7 88:6 <b>credited</b> 62:14 63:15 72:13 <b>credits</b> 56:8 111:2 128:14 129:3 132:4 <b>Creek</b> 4:4,12 <b>CREP</b> 84:4 103:21 107:1,4 116:14 117:1 <b>crop</b> 48:2 60:16 108:7,11 <b>crops</b> 37:15 50:1,3 88:17 93:17 107:19 <b>cross-state</b> 72:4 <b>crying</b> 83:10 <b>CSAR</b> 72:4 <b>current</b> 35:10 92:16 128:19 <b>currently</b> 3:11 34:3 121:8 <b>cut</b> 106:14 116:14</p> <hr/> <p style="text-align: center;"><b>D</b></p> <p><b>D</b> 3:1 <b>DA</b> 89:1 <b>Daily</b> 5:9 <b>dairy</b> 47:11,11,14 <b>damage</b> 82:19 <b>Dan</b> 83:6 <b>data</b> 22:19,20 55:7 56:5 59:1 62:17 96:10,18 111:18 124:10 135:2</p>	<p><b>date</b> 35:16 42:19 43:3 <b>dates</b> 131:4,5,8 <b>Dawn</b> 1:10 139:3,20 <b>day</b> 84:19 115:15 139:18 <b>days</b> 84:10,19 99:7 <b>dead</b> 5:4 <b>deadline</b> 45:20 117:13 <b>deal</b> 47:18 76:6 86:15 121:7 133:9 <b>dealing</b> 33:14 121:10 <b>dealt</b> 60:14 <b>dear</b> 49:8 <b>debited</b> 133:2 <b>December</b> 11:9 131:1 <b>decibel</b> 133:19 <b>decided</b> 70:7 <b>deciding</b> 98:13 <b>decision</b> 13:1 70:6,9 132:6 <b>decreases</b> 58:1 <b>decreasing</b> 37:18 <b>decree</b> 99:16,16 100:7,12,14 102:13 103:6,13 <b>deed</b> 109:13 110:2 <b>deep</b> 86:18 <b>definite</b> 114:8 <b>degradation</b> 112:21 <b>Delaware</b> 70:8 <b>delegated</b> 103:3 123:3 <b>delegation</b> 103:5,8 <b>deliverables</b> 29:20 <b>delivered</b> 112:13 <b>delivery</b> 111:7 112:12 <b>department</b> 1:1 2:5 2:9 3:5 13:9 25:20 37:3 75:2 82:15 119:5 <b>depending</b> 28:16 67:17 76:7,12</p>	<p>122:18 129:13 134:6 <b>Depends</b> 107:16 <b>deposition</b> 5:21 <b>design</b> 18:9 101:10 101:15 <b>designing</b> 124:2 <b>detail</b> 4:18 11:12 125:18 <b>detailed</b> 128:11 <b>details</b> 118:7 130:15 <b>determined</b> 9:11 <b>develop</b> 8:19 13:11 13:19 29:7 32:8 <b>developed</b> 12:1 18:5 29:5,16 30:12 92:14 111:4 130:2 <b>developer</b> 52:15,21 65:4 77:20 78:1 82:20 <b>developers</b> 65:20 <b>developing</b> 8:13 16:6 26:1 <b>development</b> 21:17 51:11 66:12 76:8 78:4,4 110:21 119:9 <b>dialogue</b> 59:12 116:16 <b>difference</b> 11:11 23:17 29:14 39:9 57:13 98:11 <b>different</b> 26:21 31:7 39:3 55:17 64:6 68:11,11 82:10 127:8 <b>differently</b> 26:11 <b>difficult</b> 19:19 40:3 41:4 91:6 92:8 <b>directly</b> 7:1 55:16 121:18 126:14 <b>director</b> 2:4 3:4 72:9 75:2 <b>disagree</b> 76:19 <b>discharge</b> 10:2 51:12 66:21 96:10</p>	<p><b>discharges</b> 51:12 66:20 <b>discharging</b> 9:21 <b>disconnect</b> 117:17 <b>discouraged</b> 94:7 <b>discussion</b> 16:10 115:18 125:12 130:6,13 <b>discussions</b> 115:11 121:18 <b>disinfection</b> 99:7 <b>displayed</b> 45:12 <b>disposal</b> 20:3 <b>dissatisfied</b> 4:10 <b>distorted</b> 111:18 <b>distributed</b> 135:11 135:12 <b>district</b> 52:13,19 53:3 55:14 104:4 106:5 107:10 <b>districts</b> 29:17 55:9 62:2 <b>division</b> 69:1,3 <b>document</b> 3:10,14 62:3 68:4 <b>doing</b> 8:20 12:5 15:12 18:1,18 34:11 35:1 55:20 63:14 72:14 76:4 76:13 81:6 89:6 90:15 91:12,13,17 92:16,18 93:21 99:9 105:3 106:12 107:1,5 109:9 116:6 127:21 <b>dollar</b> 8:16 81:21 <b>dollars</b> 80:18 81:17 85:21 86:9 90:4 100:1,10 110:9 <b>dominant</b> 28:9,17 <b>dominoes</b> 66:11 <b>doors</b> 62:6 105:14 <b>double</b> 85:5 118:13 <b>doubt</b> 90:16 <b>downhill</b> 100:20 <b>downpours</b> 123:19</p>
--	--	--	--

<p><b>draft</b> 130:12 131:7  <b>drop</b> 88:16  <b>drove</b> 86:4 122:20  <b>due</b> 66:14 99:4,10  117:13 118:10  <b>dumping</b> 53:18 54:4  85:14  <b>dust</b> 133:19  <b>dynamics</b> 44:18  <b>D.C</b> 80:13 126:18</p> <hr/> <p style="text-align: center;"><b>E</b></p> <hr/> <p><b>E</b> 3:1,1  <b>earlier</b> 24:1 101:5  107:9 119:12  <b>early</b> 30:20  <b>earthquake</b> 84:16  90:1  <b>easier</b> 76:5  <b>easiest</b> 61:21  <b>easily</b> 56:16  <b>Eastern</b> 14:18 28:18  29:10 41:3,15 82:7  121:20 122:1  <b>easy</b> 42:4,19 101:14  <b>economically</b> 119:14  120:20  <b>educate</b> 108:1  <b>education</b> 108:15  <b>effect</b> 134:6  <b>effective</b> 21:13 69:17  76:6 78:6,9 98:9  <b>effectiveness</b> 69:16  77:7,13  <b>efficiencies</b> 68:13,14  69:7,10,15  <b>efficiency</b> 56:12 57:6  69:14 85:14 134:1  <b>efficient</b> 56:20 57:1  73:11,17 80:3  136:19  <b>efficiently</b> 96:17  <b>effort</b> 4:11  <b>eight</b> 9:9  <b>either</b> 57:13 75:21  78:9 79:14 83:10</p>	<p>103:15 109:8  <b>embarrassment</b>  127:11  <b>employee</b> 139:13  <b>EMPs</b> 23:7  <b>encompass</b> 78:3  <b>endangered</b> 117:3  <b>ended</b> 34:19 36:4  38:21 39:13,17,17  40:21 45:4  <b>endorse</b> 68:5,18  <b>enforceable</b> 7:2,13  <b>enforced</b> 67:21  <b>enforcement</b> 7:14  10:20 103:3 114:6  123:4 132:20  <b>engaged</b> 61:6  <b>engine</b> 73:15  <b>engineering</b> 18:8  <b>enhanced</b> 11:2  136:10  <b>enter</b> 5:11  <b>entered</b> 71:6 116:17  <b>entertain</b> 54:10  <b>entirely</b> 76:19  <b>Environment</b> 1:1 2:5  3:5 37:3  <b>environmental</b> 75:1  <b>EPA</b> 7:9,18 9:1,15  10:8,10,12,16 11:9  13:21 14:8,14,20  15:5 16:1 19:4 21:3  23:16 25:10 30:1  40:15,15 48:15  55:3 59:18 62:12  68:5,21 69:9 71:4,6  71:10,11,13,18  72:1,11 73:5 74:15  74:19 78:20,21  79:10 80:9 81:5,12  85:8 86:3 91:8,12  95:1 102:18 118:19  131:4  <b>EPA's</b> 12:18 50:14  120:11  <b>ephemeral</b> 133:8</p>	<p><b>equals</b> 5:14 41:12  <b>equate</b> 112:13  <b>equating</b> 111:7  <b>EQUIP</b> 31:15  <b>equitable</b> 76:21 77:6  <b>Eric</b> 46:12 109:15  <b>Erie</b> 91:21  <b>erosion</b> 103:7  <b>errors</b> 59:9  <b>escape</b> 110:21  <b>Eskin</b> 2:3 3:3,4  22:17 56:10 57:10  58:17 62:11 63:12  66:15 68:8,12,16  70:5 71:13 73:4  74:3 75:15 79:13  81:16 82:1,3,5,10  82:13 89:10 96:9  97:18,21 99:3,14  99:19 100:4 102:16  103:14 112:19  114:7 118:4 120:18  121:11 123:1,5,12  125:14,19 127:20  128:8,16 129:7,10  129:18 130:3,13  131:2 132:11  133:19 134:5,15  135:19 136:3 137:6  <b>especially</b> 28:18 55:9  <b>essentially</b> 7:4 12:6  102:14 136:21  <b>establishes</b> 114:5  <b>estimate</b> 5:9 63:17  126:5  <b>estimates</b> 63:19  <b>et</b> 27:13 60:16  <b>evaluate</b> 102:14  <b>evaluating</b> 8:11  <b>evaluation</b> 131:7  <b>EVANS</b> 1:18  <b>evening</b> 3:8 25:18  <b>event</b> 102:5  <b>eventually</b> 6:1  <b>everybody</b> 4:16 5:2  24:18 25:6 28:8</p>	<p>116:1  <b>everybody's</b> 119:14  <b>exact</b> 131:5  <b>exactly</b> 23:2 24:4  38:12 120:18  <b>example</b> 52:11 66:17  72:15 116:13  123:16  <b>exceeded</b> 40:4  <b>excellent</b> 20:4 63:14  <b>excess</b> 138:8  <b>exclusive</b> 6:7  <b>Excuse</b> 22:14  <b>exercise</b> 6:4 30:5  34:11  <b>existing</b> 31:10,11,13  31:17 32:2 34:17  34:18 36:5 44:17  101:13 105:19  <b>expand</b> 10:12 113:15  <b>expect</b> 15:2 18:21  24:19 114:12  <b>expended</b> 110:10  <b>expensive</b> 91:7  <b>experience</b> 124:10  <b>expired</b> 130:19  <b>Expires</b> 139:21  <b>explained</b> 57:19  <b>explode</b> 121:4  <b>exploded</b> 121:3  <b>expressed</b> 82:20  <b>extended</b> 30:10  <b>extent</b> 73:10 91:4  <b>extra</b> 131:15</p> <hr/> <p style="text-align: center;"><b>F</b></p> <hr/> <p><b>face</b> 19:9 89:11  <b>faced</b> 22:2  <b>facilitating</b> 25:21  <b>fact</b> 36:8 57:12 59:15  59:17 61:17 63:13  72:9 73:5 74:5  96:10 98:1 130:4  135:13  <b>factors</b> 69:16,19  <b>facts</b> 86:8</p>
--	---	---	--

<p><b>fail</b> 87:1  <b>failing</b> 65:7 75:18                  77:21  <b>fair</b> 17:18 118:4,6  <b>fairly</b> 4:19 5:13 20:4                  82:21 112:17 115:8  <b>fall</b> 99:2 126:17  <b>false</b> 37:7  <b>familiar</b> 52:1 122:6  <b>family</b> 79:2 96:21  <b>fan</b> 78:19,20  <b>far</b> 11:5,13 36:10                  39:12 75:11 77:21                  91:8 93:17 94:3                  97:7 116:16  <b>farm</b> 27:16,21 36:7                  51:18 52:3,19 56:3                  66:14 79:2 89:19                  103:21 104:11                  106:18 107:8                  116:13 132:15                  133:4  <b>farmer</b> 131:17  <b>farmer</b> 69:21 85:19                  104:20 108:3                  110:16 121:21                  131:13  <b>farmers</b> 31:16 33:13                  51:14 53:4 67:16                  93:6,10,12 96:21                  97:1 104:2,6,18                  105:5 109:2 125:5                  131:17  <b>farmer's</b> 103:20  <b>farms</b> 5:20 31:12                  34:9 116:15 122:2  <b>farther</b> 69:16  <b>farthest</b> 55:5  <b>fascinating</b> 127:13  <b>feasibility</b> 18:7  <b>February</b> 83:14  <b>federal</b> 9:16 119:5                  119:15  <b>federally</b> 72:7  <b>feed</b> 87:16,17,20  <b>feel</b> 77:14 79:6 91:17</p>	<p><b>feeling</b> 80:8 82:20  <b>feet</b> 86:18  <b>field</b> 88:18  <b>fighting</b> 90:12  <b>figure</b> 85:4  <b>figures</b> 105:17  <b>fill</b> 21:4 22:4 23:21  <b>Filling</b> 20:19  <b>final</b> 12:21 14:6                  25:13 30:20 31:4,8  <b>finalized</b> 117:14,15  <b>finally</b> 21:15 121:3  <b>find</b> 16:8 52:16                  58:16 59:9 78:17                  80:2 84:12 94:16                  112:9  <b>finding</b> 60:20 100:16                  125:16  <b>fine</b> 47:16 48:4 90:19  <b>fined</b> 85:21 86:10  <b>fingers</b> 127:15  <b>fining</b> 131:21  <b>Finney</b> 60:3,3,19                  61:3 62:5 63:10                  64:2  <b>fire</b> 91:21  <b>firm</b> 131:8  <b>first</b> 6:9 9:8 28:3                  31:7 33:4 34:15                  38:3,13 44:11                  45:17 47:2,7 49:5                  56:10,13,18 57:19                  64:5 66:3 83:19                  114:13 118:11                  136:12  <b>firsthand</b> 48:13  <b>fishery</b> 92:2  <b>fishing</b> 95:19  <b>five</b> 14:13,15 19:3                  49:16 81:20 98:2,8                  98:14 102:17                  109:17 117:4  <b>fix</b> 9:6 59:10,13                  80:18 88:10 89:20                  90:5 100:1 101:18                  133:6</p>	<p><b>fixed</b> 25:1,1 59:3,20                  79:18 88:11 89:16                  90:2 132:18  <b>fixing</b> 90:9 103:12  <b>flooding</b> 66:14  <b>flow</b> 96:15 98:6                  101:7 113:10  <b>flows</b> 100:20 111:17  <b>focus</b> 41:7 45:1                  100:15  <b>focused</b> 27:14 65:3                  66:2 95:9  <b>folks</b> 4:9 13:13 64:12                  79:4 80:19 82:18  <b>follow</b> 81:9 111:5  <b>follow-up</b> 102:9,9  <b>forage</b> 50:2,3  <b>force</b> 19:20,21 20:2,3                  20:10 98:3 130:8  <b>foreman</b> 85:3  <b>forest</b> 42:12,18,21                  64:18 68:10  <b>form</b> 128:3 136:21                  137:5 138:6  <b>formal</b> 66:18  <b>formers</b> 137:19  <b>forms</b> 136:1,4,6,8,19                  137:3,13 138:4  <b>forth</b> 7:15 15:15                  16:15 20:7 25:5                  90:8 100:17 111:2  <b>fortunate</b> 32:11  <b>forward</b> 27:19 28:1                  32:15 110:5 130:4  <b>found</b> 84:3 85:2                  94:16  <b>Foundation</b> 4:4,12  <b>four</b> 13:15 62:19                  81:20 93:21  <b>frame</b> 66:15  <b>frames</b> 17:13  <b>framework</b> 6:20 7:7                  9:3 31:2 104:5  <b>frequently</b> 90:6  <b>fuel</b> 73:6  <b>full</b> 50:11</p>	<p><b>fully</b> 20:21 130:2  <b>fund</b> 18:3 20:6 67:12                  75:9 76:9 106:1                  118:12,18  <b>funded</b> 118:3  <b>funding</b> 4:4 16:11                  26:20 76:11 106:2                  106:18 116:19                  117:5,20,21 118:5                  118:19,21 119:4,10                  120:10 121:9,10,13  <b>funds</b> 76:8 107:5                  110:10 116:16                  119:11,12  <b>further</b> 46:7 58:15                  110:21 139:8,12  <b>future</b> 16:21 23:19</p> <hr/> <p style="text-align: center;"><b>G</b></p> <hr/> <p><b>G</b> 3:1  <b>gallons</b> 84:19  <b>game</b> 18:13 87:9  <b>games</b> 88:3  <b>gap</b> 20:19 21:4  <b>gaps</b> 22:5 23:21  <b>Gardeur</b> 95:16,17                  96:20 97:19 98:17                  99:12,15 100:2                  102:8,19  <b>Gary</b> 78:18  <b>gas</b> 136:14,16 137:7                  138:1  <b>gaseous</b> 135:17                  136:2  <b>gasoline</b> 73:7,9,18  <b>gate</b> 38:14  <b>gates</b> 114:18,19  <b>Gene</b> 110:16  <b>general</b> 3:17 20:11                  69:11,15 114:15                  116:9 118:10 130:8  <b>generally</b> 71:8 115:6  <b>generated</b> 56:2                  90:18  <b>generation</b> 73:19                  124:13</p>
--	---	--	--

<p><b>generic</b> 37:11  <b>geographic</b> 11:13              54:21  <b>George's</b> 120:5  <b>getting</b> 4:8 17:13              38:2 55:19 56:7,9              57:8,10 61:11 72:2              79:21 80:20 84:1              88:18 91:8 92:5,8              101:2 119:14              126:14 130:10  <b>giant</b> 87:9  <b>give</b> 3:8 8:15,17 11:2              20:21 21:3 22:3              37:16 59:2 66:20              114:7 115:9 116:12              129:19  <b>given</b> 4:4 12:9 23:16              31:10,17 32:18              36:8 83:16  <b>gives</b> 37:7 84:5  <b>giving</b> 38:3  <b>glimpse</b> 48:13  <b>gloss</b> 58:3  <b>go</b> 4:14,18 17:3,10              18:14 25:14,15              33:5 34:4,9 38:9              43:8 45:8 46:4              50:16 52:2,19 53:2              61:5,21 73:2 79:10              79:11 83:15 88:17              94:12 95:5 96:16              101:15 105:13,18              116:13,17 118:16              134:10  <b>goal</b> 29:21 32:3              34:13 39:16 41:13              43:7 79:8 94:12              113:5  <b>goalpost</b> 94:4  <b>goals</b> 30:8,18 39:13              42:8 45:2 64:7 79:9              95:4,9 114:3 115:3              116:15  <b>goes</b> 23:8 46:10 85:7              96:18 103:19</p>	<p>114:15 125:3 129:5          136:9  <b>going</b> 3:8 4:14 8:6              9:6,10,12 10:10,18              14:4,14 15:2 16:5,7              16:9,20 17:2 18:20              19:5,15,19 21:10              24:10,16,21 27:7              27:18 28:1,13              29:13 30:4 31:3              32:15 33:17 35:2,4              35:10,10,14 36:14              37:12,15 44:19,20              45:2 49:3 50:18              51:3 52:16 53:9              54:10 56:14,20,21              58:5,12 59:6,10              61:4,8 64:18 66:7,9              66:9 67:15 68:20              69:18 75:4 76:17              76:18 78:17 79:21              80:5,21 82:7,14              83:8,14 84:7 85:10              87:5,12,13,19 88:1              88:6,11 89:12,17              90:11 95:13 97:14              98:12,15 100:1              101:6,20 102:2,6              104:8 105:4 106:11              108:1,1,9,12,13,21              110:5 112:7,21              113:13 115:2,3,13              115:15,16,17 116:7              117:3,15 118:3,7              120:1,12 121:7,15              121:16 124:5,8,12              125:1 126:1,21              127:2 129:3 132:13              132:20 133:6 134:7              135:9 137:4,7  <b>good</b> 6:12,13 15:12              25:18 38:11 64:17              73:18 81:11 99:7              104:12,13 113:6              117:9 118:9 120:7              124:1 126:5 129:5</p>	<p><b>goofing</b> 89:7  <b>gotten</b> 39:12  <b>government</b> 11:18              13:13 78:19  <b>governmental</b> 19:12  <b>governments</b> 8:13              16:14  <b>governor</b> 29:21 30:2              105:16  <b>grades</b> 64:5  <b>grant</b> 107:5,6  <b>grants</b> 53:7 76:10              119:13  <b>great</b> 18:18 35:18              40:9 45:14 104:13              105:12 106:5,10              127:6 130:17  <b>greatest</b> 121:19,21  <b>green</b> 40:21  <b>greenhouse</b> 138:1  <b>ground</b> 15:19 24:7              27:6 30:8 32:15              58:19,21 108:2,9              108:19,20  <b>ground's</b> 108:13  <b>ground-truthing</b>              135:3  <b>group</b> 13:15 47:1              48:16,17,17 49:5,7              60:13 114:1  <b>groups</b> 27:9,11 29:16              30:11,16 48:16              62:15  <b>growth</b> 6:14 15:9,16              19:18 50:13 89:11  <b>guarantee</b> 7:16 24:6  <b>guess</b> 104:3 107:11  <b>guesses</b> 121:6  <b>guidance</b> 68:9 69:11              69:12 130:15  <b>guinea</b> 46:14  <b>Gunpowder</b> 68:3              95:17 99:1 103:18  <b>guttering</b> 34:10  <b>guys</b> 46:11 48:5              51:20 105:12</p>	<p>108:19  <hr/> <p style="text-align: center;"><b>H</b></p> <hr/> <b>half</b> 22:8 25:17 81:20              118:17  <b>hammered</b> 119:15  <b>hand</b> 116:4 126:19              139:17  <b>handle</b> 32:9,14 76:5              126:2  <b>handled</b> 82:15 99:6  <b>handles</b> 80:12  <b>handling</b> 46:9  <b>hands</b> 84:21  <b>hands-on</b> 13:13  <b>hanging</b> 92:6  <b>happen</b> 24:17 58:18              67:2 90:5 115:17              135:9 136:12  <b>happened</b> 47:9,10              84:17 91:21 121:4  <b>happening</b> 63:8 67:1              69:5 71:20 83:5              115:11 124:2  <b>happens</b> 5:8 9:14              26:17 69:13 73:9              75:14 90:20 99:18              137:13  <b>hard</b> 33:9 74:18              76:14 80:20 92:9  <b>Harford</b> 16:18 47:10              75:2,7 83:7 113:18  <b>harmless</b> 138:6  <b>Harriet</b> 71:4  <b>Haviland</b> 98:21  <b>health</b> 75:1,2  <b>Healthy</b> 72:14              137:15  <b>hear</b> 40:6 61:2              103:14 113:19              125:10 127:7  <b>heard</b> 95:1 104:20              105:9 121:15  <b>heats</b> 137:9  <b>heavy</b> 96:12  <b>heck</b> 85:8</p>
--	---	--	--

<p><b>held</b> 1:6  <b>help</b> 3:13,14,16 4:7              4:12 12:1 13:10,17              48:5 52:7 53:7              64:20 78:15 83:4              93:8 109:15 122:13  <b>helped</b> 38:11 119:6  <b>helpful</b> 12:17  <b>helping</b> 69:13  <b>helps</b> 32:15  <b>herd</b> 47:11  <b>hey</b> 125:7  <b>high</b> 73:15  <b>higher</b> 43:7 56:6              123:20 129:11,13  <b>highlighted</b> 47:1  <b>hill</b> 100:21  <b>Hillhurst</b>[phonetic              54:19  <b>HINES</b> 109:17  <b>hire</b> 106:2 107:4  <b>hired</b> 52:6  <b>hit</b> 80:20 81:20  <b>hits</b> 51:21  <b>hold</b> 7:20 58:5 84:21  <b>holding</b> 53:13 55:8              55:10 92:19  <b>home</b> 17:10 112:17  <b>honest</b> 108:6  <b>hook</b> 65:15,20 75:19  <b>hookups</b> 15:17  <b>hope</b> 15:3 62:8  <b>hopefully</b> 104:14  <b>hoping</b> 24:12 77:7  <b>HORSEY</b> 37:20              58:10 106:21              129:15  <b>house</b> 86:20  <b>Howard</b> 52:11 139:2              139:4  <b>huge</b> 29:6 94:6 95:11  <b>Hughes</b> 4:5,5  <b>human</b> 87:20  <b>hundred</b> 99:9  <b>Hyde</b> 1:10 139:3,20  <b>hydrology</b> 124:16,21</p>	<hr/> <p><b>I</b></p> <hr/>	<p>132:9  <b>inch</b> 124:3  <b>include</b> 71:18  <b>included</b> 72:18  <b>incorporated</b> 24:2  <b>increase</b> 15:20 16:7              43:13 113:9 120:2  <b>increases</b> 96:15  <b>increasing</b> 43:15              106:17  <b>incremental</b> 18:21              119:21  <b>increments</b> 135:6  <b>independently</b> 56:13              57:1  <b>indicated</b> 64:9  <b>individual</b> 15:8              19:16 71:19 77:19              78:11 104:17              132:14  <b>individually</b> 135:7  <b>industrial</b> 66:19  <b>industry</b> 61:10              131:15  <b>inert</b> 136:21  <b>infiltration</b> 96:14  <b>inflow</b> 96:14  <b>information</b> 17:2,4              25:3,4 28:6 33:10              33:20 34:2 36:12              37:8 38:4 41:19              42:10 45:18 46:5,9              59:2 61:20 84:2,4              84:13 96:3,7              117:16 123:10  <b>INFORMATION...</b>              1:2  <b>infrastructure</b> 80:15              80:19 131:21  <b>initially</b> 95:14  <b>initiate</b> 106:9  <b>input</b> 11:13 71:6,10              92:17  <b>insane</b> 86:5  <b>insignificant</b> 133:8  <b>insisted</b> 131:6</p>	<p><b>inspected</b> 67:20  <b>inspections</b> 7:15  <b>installed</b> 35:16  <b>instance</b> 66:8  <b>integrate</b> 57:6  <b>intentionally</b> 88:14  <b>interact</b> 137:1  <b>interaction</b> 57:2  <b>interest</b> 97:4  <b>interested</b> 104:21              139:15  <b>interesting</b> 39:1 40:1              41:14 123:13  <b>invalid</b> 70:3  <b>inventory</b> 107:11  <b>inviting</b> 27:15  <b>involved</b> 11:19              121:18  <b>issue</b> 19:18 40:7 70:3              70:6 72:1,13,21              82:11 99:5 105:8              117:13 127:3              131:14  <b>issues</b> 46:3,18 48:7,9              58:4,8,9,16 74:20  <b>items</b> 56:1  <b>iteration</b> 124:21</p> <hr/> <p style="text-align: center;"><b>J</b></p> <hr/> <p><b>January</b> 25:9,10              58:21  <b>jargon</b> 5:5  <b>Jen</b> 68:2 103:18  <b>Jim</b> 46:12 62:1              122:13  <b>job</b> 4:8 18:18 91:13              91:17 105:12  <b>John</b> 2:7 3:18 25:16              25:19 55:14 60:5              67:14 70:5 85:12              93:1 94:11 106:21              113:2 114:10  <b>Judge</b> 85:21  <b>July</b> 25:14  <b>jump</b> 4:2  <b>jumping</b> 40:8 50:12</p>
--	-----------------------------	--	--

<p><b>June</b> 24:1 25:12 68:4 68:14 117:14 <b>jurisdiction</b> 67:7 <b>jurisdictions</b> 17:21 24:12,21 130:16 <b>justify</b> 116:7</p> <hr/> <p style="text-align: center;"><b>K</b></p> <hr/> <p><b>keep</b> 18:18 24:17 67:15 87:6,10,11 88:2 94:19 112:2 <b>keeping</b> 126:7,8 <b>Keith</b> 107:7 <b>Kent</b> 122:10 <b>kept</b> 21:6 49:16 <b>Kevin</b> 74:21 <b>kick</b> 114:4,4 <b>kind</b> 20:10 28:3 32:8 32:19 38:10 64:9 75:16 96:2 120:11 <b>kinds</b> 59:4 <b>Klingelhofetz</b> 22:14 135:15,16,21 137:2 <b>knew</b> 27:21 84:8,21 <b>knock</b> 105:13 <b>know</b> 4:9 5:2,3 8:10 8:17 10:21 16:2 17:9 19:19 20:13 23:1 24:5 27:6 29:19 31:13 32:15 33:9 36:13,14 38:1 38:9 39:1 40:17 42:3,9 47:8 48:1 49:8 50:2,2,5 51:7 53:6,14 55:10,18 56:4,5 58:14,19 60:20 61:6,17,19 61:20 62:18 63:20 64:8,9,16 65:5 66:11 73:5 74:4,5 80:20 82:6 83:7,9 83:11,11,20 84:1,9 84:12 85:9,9,20 86:9 87:13,14 89:1 89:9,14 90:7 91:8 91:14 92:4,10,19</p>	<p>93:3 94:4 95:12 97:5 99:8 100:6 105:6,12,12 107:13 108:12,20,21 109:1 109:5 110:9,10,10 112:3 114:6,12,19 115:5,21 116:18 117:1 118:13 119:1 119:19 120:1 121:3 121:17 123:12,14 123:15,19 124:3,17 124:20 132:7 133:12,14,16,20 135:6 <b>knowing</b> 60:8 118:2 <b>known</b> 20:1 <b>knows</b> 5:2 24:18 109:19</p> <hr/> <p style="text-align: center;"><b>L</b></p> <hr/> <p><b>lack</b> 60:6,9 <b>lady</b> 127:13 <b>Lake</b> 91:21 <b>land</b> 12:7,9 16:6 25:5 37:12 38:6,8 59:6 60:17 64:17,17 67:16 108:5 122:12 <b>landowner</b> 108:2 109:1 110:2 <b>landowners</b> 27:17 31:12 108:18 <b>landowner's</b> 109:13 <b>Landscape</b> 60:4 <b>lane</b> 105:13 <b>large</b> 5:4 54:21 111:11 <b>larger</b> 123:18 124:4 124:4,5 <b>late</b> 63:10 <b>law</b> 81:9,11 <b>lawns</b> 5:21 <b>laws</b> 91:11 92:10 <b>lawsuit</b> 81:21 <b>Le</b> 95:16,16 96:20 97:19 98:17 99:12 99:15 100:2 102:8</p>	<p>102:19 <b>lead</b> 3:6 29:18 38:19 55:4 <b>leaks</b> 100:16 101:20 <b>learned</b> 40:6 57:12 104:2 <b>learning</b> 103:20 <b>lease</b> 108:5,9,18 109:2 <b>leased</b> 108:20 <b>leave</b> 65:12 85:8 86:12 <b>leaves</b> 137:16 <b>leery</b> 41:20 <b>left</b> 64:18 81:5 <b>legally</b> 67:1 <b>legislation</b> 105:21 121:13 <b>legislative</b> 19:20 <b>legislature</b> 121:9 <b>lesser</b> 10:21 <b>letter</b> 93:3 <b>let's</b> 5:1 9:19 19:9 29:11 56:11 75:18 76:1 77:20 94:16 108:6 112:4 126:11 128:8 136:3 <b>level</b> 10:21 14:14,20 14:21 19:3 26:18 26:18 54:14 55:1,6 55:8,11,12 103:4 106:16 119:16 125:3,4 132:14 133:15 <b>levels</b> 54:15 <b>leverage</b> 78:14 <b>liaison</b> 11:17 <b>life</b> 127:9 <b>lightning</b> 137:8,9 <b>liked</b> 37:5 44:8 <b>limitation</b> 62:4 134:1 <b>limitations</b> 55:10 <b>limited</b> 44:6 112:19 <b>line</b> 22:7 43:8 138:3 <b>linear</b> 38:10 <b>lines</b> 24:17</p>	<p><b>Lippincott</b> 64:3,3 <b>list</b> 48:18,19 58:8 60:12 93:2 <b>listened</b> 17:19 <b>lists</b> 12:6,7 <b>liter</b> 9:21 10:3 65:17 65:18 <b>literature</b> 62:20 <b>little</b> 4:18 14:16 16:20 18:14 20:9 26:10,21 30:6 33:9 41:5,20 50:7 52:5 54:16,17 57:15 62:11 67:17 80:4 101:15 128:10 134:6 136:4 <b>lived</b> 127:9 <b>livelihood</b> 79:2 <b>load</b> 5:9,14,14,18,19 7:11,12,15 16:7,9 22:10,10 26:7,7,8,9 28:9,13 29:1,3 33:21 34:12 35:1,3 35:10,17,21 37:16 39:6,10 41:8 47:13 50:15 51:2,4,9 52:17 56:19 61:18 62:4 63:6,7,18 65:10 68:5 74:16 93:19 97:8 113:12 122:8,20 127:1 <b>loading</b> 84:15 113:11 121:19,21 122:3 <b>loads</b> 5:15 7:4 12:11 12:12 14:10 15:10 16:3,4 29:5 41:11 74:17 75:11 89:12 96:16 97:2,3,10 112:13 123:9 133:1 135:6 <b>loan</b> 76:9 119:11 <b>local</b> 8:12 11:14,16 11:18 13:13 16:13 16:14,17 21:6 24:12 29:8 44:10 78:8 85:19 90:20</p>
---	--	---	---

<p>98:15 103:4 119:15 120:2,3 130:15,18 <b>locally</b> 90:18 98:10 113:6 134:5 <b>located</b> 112:1,14 <b>location</b> 134:19 <b>logical</b> 42:5 <b>logistics</b> 4:7 <b>long</b> 6:11 18:10 79:20 120:15 126:1 <b>longer</b> 108:5 133:1 <b>look</b> 17:5 28:12,21 29:1 32:4 36:13 39:2 41:14 42:11 42:12 44:14,15,15 47:3,7 48:1,19 49:3 63:1 68:6 77:14,17 93:7,16,16 97:11 98:18 105:1 115:7 118:17 119:16 120:12 128:18 134:11 <b>looked</b> 17:7 27:1 49:11 96:12 97:21 <b>looking</b> 18:20 32:7 38:18 44:2 46:21 49:7,20 51:8,19 52:5,20 73:20 93:7 97:5 98:4 100:16 111:10 122:9 129:13 133:1 <b>looks</b> 39:21 40:13,16 53:15 103:9,10 111:21 <b>lost</b> 116:21 133:20 <b>lot</b> 6:11,12 11:12 15:1,12,16 17:3 28:5 32:21 33:13 37:5 42:2,14 49:11 50:3 57:5 62:13 64:12 66:12,13 67:10 77:11 84:5 89:11 95:19 101:1 103:21 117:19 126:11,14 <b>lots</b> 17:1</p>	<p><b>Louisiana</b> 97:1 <b>love</b> 98:17 <b>lower</b> 73:7 99:1 <b>luck</b> 117:9 <b>Luckily</b> 39:15</p> <hr/> <p style="text-align: center;"><b>M</b></p> <hr/> <p><b>M</b> 139:20 <b>main</b> 84:18 <b>maintained</b> 110:11 <b>major</b> 4:11 9:19 14:13 29:12 41:8 41:10 44:13 65:16 80:15 98:5,5 100:15 110:4 136:6 <b>majority</b> 29:11 44:12 <b>maker</b> 13:1 <b>making</b> 9:14 10:17 15:14 41:15 43:17 90:9,10 92:3 93:19 101:16 104:9 115:14 <b>man</b> 86:5 <b>management</b> 12:7 21:12,16 22:16 24:3 32:20,21 37:13 49:6,18 57:14 60:16 63:9 69:3 70:14,21 72:10 <b>managements</b> 66:13 <b>manure</b> 47:11,14 88:16,19 89:4 90:17 91:3 <b>map</b> 45:10,10 <b>MARC</b> 110:17 <b>March</b> 1:7 8:8 14:2,3 14:4,4,8 25:11,12 88:19 117:15 118:9 139:18 <b>margin</b> 6:2,7 129:16 <b>Mark</b> 131:12,12 <b>marshals</b> 115:15 <b>Maryland</b> 1:9,20 2:5 2:9 3:5 5:3 10:17</p>	<p>12:2 14:17 17:20 25:19 28:8,8,10,14 34:21 35:4 53:18 60:4 72:14 74:8,20 86:3 89:1 93:6,15 104:8,9 139:1,4 <b>MAST</b> 12:2,4,17,17 13:10 16:15 37:4 46:13,15,20 47:21 55:15 57:5 59:15 59:21 61:6 135:8 <b>match</b> 135:4 <b>matter</b> 70:11 <b>maximum</b> 5:9,10 <b>McGINNIS</b> 69:20,20 70:8,16 71:2,4 73:1 74:1 121:19,21 131:12,12 <b>MDA</b> 45:8 <b>MDE</b> 13:14 16:19 21:2 66:9 68:3,15 72:10 102:13,19 103:2,4,9 123:3 133:4 <b>MDE's</b> 3:6 <b>mdnutrienttradin...</b> 52:2 <b>mean</b> 19:9 22:1 26:4 42:12 53:16 63:13 65:2 68:8 70:18 73:7 74:4 81:17 82:6 89:8 91:20 92:13 93:6,8,16 94:3 95:12 102:16 108:18 112:20 116:12,15 117:1 118:12 125:1 127:9 135:19 <b>means</b> 5:5 11:2 15:11 57:20 67:20 105:3 128:15 <b>meant</b> 15:17 <b>measure</b> 23:1 <b>mechanism</b> 65:20 112:10,11 <b>mechanisms</b> 117:20</p>	<p>118:1 <b>media</b> 114:21 <b>meet</b> 5:6,12 30:8 32:3 34:14 36:16 39:20 40:3 42:4 45:2 51:1 53:11 66:5 95:4,9,14 114:3 115:2 <b>meeting</b> 1:1,6 33:4 66:3 71:2,5,12 72:10 83:17,19,21 84:9 88:4 103:11 <b>meetings</b> 1:2 16:14 27:11 30:17,18 34:16 44:10,11 83:13 92:19 113:21 114:1 120:13 <b>meets</b> 41:13 <b>mention</b> 85:12 96:21 <b>mentioned</b> 32:7 36:17 37:2 46:13 48:11 60:13 65:3 75:5 102:10 <b>mess</b> 116:1 <b>met</b> 19:21 20:21 35:21 40:4 75:13 79:9 107:9 <b>methane</b> 135:19,21 138:1 <b>Michele</b> 139:3 <b>Midwest</b> 70:10 <b>Mike</b> 54:12 117:10 <b>milestones</b> 9:4 15:6,7 15:8 25:9 30:12 43:7 114:14 131:3 131:8,9 <b>Miller</b> 78:18,18 81:12,19 82:2,4,9 94:11,14 95:5 127:5 <b>milligrams</b> 9:21 10:3 65:17,18 <b>million</b> 22:9,12 35:4 35:9,13,18 39:7,8 39:11 53:16 54:4 81:20 84:19 86:9</p>
---	--	--	--

<p>93:20,21 94:2 100:1,7,10 118:17 122:10,10 134:14 134:14 <b>millions</b> 85:21 <b>mimicked</b> 46:17 <b>mind</b> 28:2 46:6 51:5 105:15 <b>minor</b> 9:20 65:15 76:2 97:18,19 98:7 98:19 134:2 <b>minors</b> 98:14 <b>minute</b> 36:20 47:8 <b>mirrors</b> 87:9 89:5 <b>missed</b> 92:21 <b>missing</b> 42:16 <b>mistaken</b> 91:2 <b>mitigate</b> 49:12 <b>mitigating</b> 35:12 <b>model</b> 12:19,21 13:1 13:5 22:19 23:6,9,9 23:13,14 24:21 25:7 31:1,3,19 33:11,14,16,18,20 34:20,21 35:11,20 36:16,18,21,21 37:9,10,14,15 38:4 38:12 39:4,6,8,10 39:11,16 40:8,10 41:9,18,19 44:6 45:20 46:2,5,9,17 47:3,5,13 48:13 49:4,11,13,19 50:4 50:7 53:17 54:18 55:6 56:1 57:3,5 58:6,9,21 59:2,5,16 60:1 61:18 62:14 63:4,16 69:8 79:8 87:5 96:1,2,3,4,19 112:11 113:11 124:13 125:1 126:3 134:18,18 135:1,3 <b>modelers</b> 72:11 <b>Modeling</b> 45:3 <b>models</b> 79:17 <b>modified</b> 77:17</p>	<p><b>modify</b> 23:21 <b>money</b> 10:4 67:12 75:7 85:14 104:1,6 107:6 108:10 <b>moneys</b> 104:16 <b>monitor</b> 135:1 <b>monitored</b> 134:10 135:2 <b>monitoring</b> 6:4 22:20 51:16 66:21 96:10 <b>Monkton</b> 95:18 <b>month</b> 13:21 66:20 <b>months</b> 84:17 <b>move</b> 6:18 55:17 124:18 130:4 <b>moved</b> 7:6 <b>moving</b> 6:19 72:3 87:10 <b>MS4</b> 67:7 <b>municipal</b> 19:16 67:6 85:6 88:10,11 <b>municipalities</b> 11:14 120:4 <b>municipality</b> 21:21 <b>mutual</b> 130:14</p> <hr/> <p style="text-align: center;"><b>N</b></p> <hr/> <p><b>N</b> 3:1 <b>name</b> 3:3 55:13 93:1 <b>named</b> 113:8 <b>name's</b> 54:12 74:21 78:18 83:6 95:16 <b>nation</b> 74:12 <b>national</b> 64:8 72:19 106:16 <b>nationally</b> 71:20 <b>near</b> 49:8 74:10 <b>nearly</b> 118:5 125:21 <b>necessarily</b> 98:9 99:10 <b>need</b> 4:21 6:4 7:6,17 8:19 14:6 16:4 18:19 19:14 23:14 23:17 27:4 35:19 45:1 51:12 53:2</p>	<p>61:14,19 63:1 77:2 79:20 80:4 81:8 91:9,11 92:6 105:13 106:8,11 108:11 113:3,4,19 118:6,17 119:4,17 125:18 128:14 131:16 <b>needed</b> 13:18 21:2,3 21:7 54:4 129:2 <b>needing</b> 128:12 <b>needs</b> 5:16 46:8 63:20 67:7 76:10 92:11 <b>negative</b> 110:1 <b>neighbor</b> 81:14 88:20 <b>neutralized</b> 15:20 <b>never</b> 46:2 83:16,20 84:8 104:15 <b>nevertheless</b> 18:15 <b>new</b> 4:15 9:2 11:7 16:4,9 31:1,3,19,19 36:18,21 37:3 39:4 39:7,11,13,16 42:14 46:1 50:13 50:15 51:11,11 73:6 105:4 121:14 123:10 <b>newest</b> 109:5 <b>news</b> 84:20 85:1 130:17 <b>newsletters</b> 105:11 <b>newspapers</b> 28:7 <b>nitpicking</b> 11:4 <b>nitpicky</b> 92:5 <b>nitrate</b> 136:7,14 <b>nitrates</b> 137:8 <b>nitrite</b> 136:7,14 <b>nitrogen</b> 33:21 40:2 41:16 54:3,7 71:9 71:10 73:14 74:7 75:11 94:15,15 97:5,7 135:17 136:2,5 137:2,11 137:15,17,21</p>	<p><b>nitrogen/lead</b> 71:6 <b>nobody's</b> 132:8 <b>noise</b> 133:20 <b>nonpoint</b> 23:4,10 <b>nonvalidated</b> 60:8 <b>North</b> 1:19 <b>notary</b> 1:11 139:3 <b>notes</b> 39:2 <b>notice</b> 105:21 <b>no-transport</b> 38:16 <b>number</b> 6:5 18:4 36:6 41:21 42:13 45:17 71:15,17 76:11 79:15,18 103:1 106:3,10 117:12 <b>numbers</b> 22:15 23:3 23:12 30:20 31:1,4 31:9,19 36:18 39:3 47:4,6 50:4 62:20 63:1,2 93:18 95:2 122:20 <b>nurser</b> 61:16 <b>nurseries</b> 49:12,18 60:7,17 61:4 <b>nursery</b> 49:9 60:4,8 60:13 61:9 <b>nutrient</b> 21:12 22:16 24:9 37:13 49:6,17 56:6 57:14 60:15 70:14,20 107:14 110:18 111:11 128:13 136:10 <b>nutrients</b> 49:12 56:16 99:4 125:8 125:20 133:13 134:21 <b>N2</b> 136:14,16 137:6 137:12</p> <hr/> <p style="text-align: center;"><b>O</b></p> <hr/> <p><b>O</b> 3:1 <b>objective</b> 76:21 <b>obligation</b> 36:1 61:18 <b>observations</b> 55:11</p>
--	---	---	---

<p><b>obviously</b> 21:10 22:18 43:20 44:3 46:6 95:12 108:18 126:8 <b>occasionally</b> 89:16 <b>occurs</b> 26:21 73:14 <b>odd</b> 100:18 <b>office</b> 52:15 105:2 110:8,13 <b>Officially</b> 20:2 <b>officials</b> 11:18 <b>offset</b> 16:4,9 50:16 51:14 52:6 64:13 65:3 112:9 129:10 130:1 <b>offsets</b> 52:16,21 53:2 65:10 78:2,17 111:14 113:11 128:13 129:17 <b>oh</b> 13:5 24:15 59:19 88:18 121:1 <b>okay</b> 3:3 23:19 31:9 32:6 33:2 34:5 37:14 43:20 44:8 45:3,13 48:11 53:1 68:21 69:10 70:18 77:8 83:13 84:14 85:1 87:5 100:2 104:12 110:14 123:8 136:3 <b>old</b> 34:20,20 35:20 39:5,10 56:5 89:21 90:7 <b>older</b> 101:5 <b>once</b> 83:21 128:9 137:6 <b>ones</b> 38:14 <b>one's</b> 49:21 <b>one-on-one</b> 128:21 <b>one-stop</b> 53:1 <b>one-year</b> 108:8 <b>ongoing</b> 132:17 <b>online</b> 17:4 128:2 <b>oops</b> 115:14 <b>open</b> 4:1 9:18 24:18 62:6 77:17 114:18</p>	<p><b>opened</b> 52:3 <b>operating</b> 96:17 <b>operational</b> 73:11 <b>opportunities</b> 13:8 22:5 32:19 34:8 43:1 119:13 <b>opportunity</b> 21:19 23:20 33:1 61:15 <b>optimistic</b> 116:10 <b>option</b> 65:4 76:1 77:19 <b>options</b> 22:3 28:1 65:6,13 76:12 <b>order</b> 13:10 21:9 46:4 <b>organized</b> 4:6 <b>originally</b> 100:15 <b>other's</b> 20:14 <b>ounce</b> 133:12 <b>outcome</b> 139:15 <b>outreach</b> 107:1,21 108:15 <b>outside</b> 74:13 <b>overall</b> 18:2 41:12 127:3 <b>overflows</b> 80:16 134:13 <b>overlap</b> 55:18 <b>oversight</b> 11:2 <b>owned</b> 108:3 <b>oxides</b> 74:7 <b>oxygen</b> 136:13,13 137:10 <b>o'clock</b> 45:7</p> <hr/> <p style="text-align: center;"><b>P</b></p> <hr/> <p><b>P</b> 3:1 <b>pace</b> 17:20 <b>page</b> 17:10 43:21 128:11 <b>pages</b> 44:1 62:19 <b>paid</b> 67:13 81:3 114:17 <b>paper</b> 42:1 50:1 106:17 <b>parallel</b> 27:8</p>	<p><b>part</b> 5:17 7:9,18 26:14 38:18 41:14 55:21 56:19 57:3 67:4,8 70:17 74:5 78:2 90:15 98:12 116:15 118:7 128:16 129:15 131:6 132:21 <b>participate</b> 51:20 138:12 <b>particular</b> 67:18 76:15 126:12 135:10 <b>particularly</b> 7:11 <b>parties</b> 139:13,14 <b>pass</b> 121:10,12,13 <b>passed</b> 81:9 91:10 115:1 <b>Patapsco/Back</b> 28:21 29:12 <b>patience</b> 131:11 <b>Patuxent</b> 14:15 29:2 41:10 <b>paved</b> 15:19 126:20 <b>pay</b> 53:5 65:8 77:2 77:10 81:17 108:21 <b>pea</b> 87:10 <b>peer-review</b> 62:19 <b>Pennsylvania</b> 93:10 93:11 94:1,10 <b>people</b> 4:9,15 5:3 17:17 27:2,4,5,12 27:13,15,16,18 31:11 32:17 36:6 42:12 49:10 61:16 77:1 81:8 83:4 85:12 86:2 87:15 87:16 89:6 90:10 90:12 95:19 105:2 105:9 106:3,8 107:1,5 109:19 128:1 <b>people's</b> 64:20 <b>perceive</b> 73:1 <b>perceived</b> 76:15 <b>percent</b> 17:14,17 22:10,17 28:13 29:1,3 48:3 56:12 56:14 57:19,20,21 57:21 63:18 71:9 74:6 75:10,13 76:9 93:15 98:6,8 129:1 129:5 136:15 <b>percentage</b> 12:8 22:13 <b>perfect</b> 86:21 92:15 92:15 <b>period</b> 3:11 4:1 8:7 14:2 25:11 124:16 124:19 130:19 <b>permit</b> 5:16 10:14 21:9 51:13 67:5,6,8 67:19,21 68:19 86:18 96:6,7 116:6 <b>permits</b> 7:2,5,13,14 9:18 10:13,18 15:14 66:18 67:3 68:21 69:12 115:16 120:3 130:18 <b>permitted</b> 89:2 <b>person</b> 13:16 106:4 127:11 <b>personally</b> 27:15 81:21 94:13 <b>perspective</b> 28:12 29:8 32:11 42:14 <b>perspectives</b> 32:4 <b>per-acre</b> 56:19 <b>pessimistic</b> 113:19 <b>pets</b> 102:1 <b>phase</b> 1:2 3:10,12 11:6,8,8,15 17:7 92:8 97:6 <b>Philadelphia</b> 69:2 <b>phos</b> 126:12 <b>phosphorus</b> 22:11 34:1 40:1,3,8 41:14 41:17,21 42:2 48:8 48:9 53:13 54:6 94:17 97:9 125:16 126:6,15 <b>pick</b> 20:16</p>
---	--	--

<p><b>pickety-pick</b> 88:9  <b>picking</b> 92:4  <b>piece</b> 36:11 37:5  38:16 130:13  <b>pigs</b> 46:14  <b>pinholes</b> 90:8  <b>pipe</b> 23:1,5 89:15  132:16  <b>pipes</b> 80:15 90:8  <b>pipng</b> 99:21  <b>place</b> 18:3 31:12  32:12 39:18 59:12  94:5 112:11 114:19  116:19 120:7,9  126:7,8 134:21  139:6,7  <b>places</b> 43:6 126:9  <b>Plains</b> 126:19  <b>plan</b> 3:7 7:19,19,21  8:3,9,10 10:7,9  11:9,21 12:1 14:7,9  17:11 29:11,14  30:11 31:4 35:19  41:13 45:11,12  48:4 53:19,21 54:5  54:5 60:6,7 70:18  75:18 92:14 94:2,5  94:10 95:2,11,14  108:14 118:2  <b>planners</b> 19:11  27:12 52:9  <b>planning</b> 3:16 52:9  52:15 133:13  <b>plans</b> 23:21 29:4,7  40:21 46:1 93:13  93:15 114:5 117:13  117:14,19 133:16  <b>plant</b> 9:20 10:2 18:6  75:20 76:3,3 78:11  96:15 97:2,9 99:20  101:1 113:8 132:16  136:10 137:14  138:5  <b>plants</b> 15:13,18  18:16 22:21 65:15  66:19 74:12 96:13</p>	<p>97:12,14,16,18,20  98:2,5,6,7,10,13,19  99:11 102:12 119:8  126:13 134:12  135:18  <b>plant's</b> 96:17  <b>play</b> 88:2  <b>played</b> 33:3  <b>player</b> 28:17 29:13  <b>plug</b> 38:5  <b>plus</b> 75:13 125:20  <b>pocket</b> 81:13,15,18  <b>point</b> 23:3,9 40:12  54:9 58:2,6 81:8  90:11 96:4 104:19  106:20 111:4  114:13  <b>pointed</b> 59:15  <b>points</b> 40:7 127:8  <b>poisons</b> 73:10  <b>policies</b> 78:16  <b>policy</b> 20:9,17 64:8  128:17,19 129:11  130:1  <b>pollutant</b> 5:10  <b>pollutants</b> 35:14  <b>pollute</b> 88:14,15  <b>pollution</b> 5:15 77:4  <b>pony</b> 109:3  <b>poor</b> 86:4  <b>pop</b> 43:16 45:10  59:13  <b>popped</b> 47:16  <b>portion</b> 26:1 51:7  72:5 109:11 124:4  <b>position</b> 25:21  <b>possibility</b> 51:9  <b>possible</b> 61:15 76:21  121:5  <b>Possibly</b> 131:14  <b>post</b> 127:21  <b>posted</b> 128:5  <b>potential</b> 35:14 56:4  <b>potentially</b> 106:1  <b>potentials</b> 51:15 52:6  <b>Potomac</b> 14:15 41:6</p>	<p>92:1 122:1  <b>pound</b> 22:8,9 23:17  50:15,19 111:7,8  <b>pounds</b> 16:7,8 22:11  22:12 35:4,9,13,18  39:7,8,11 53:16  54:4 63:18 93:20  94:2 122:10,11,14  <b>power</b> 65:21 74:11  137:14  <b>Powers</b> 68:2,2,10,13  103:18,18 106:12  <b>practice</b> 12:14 32:20  32:21 69:13,18  107:17  <b>practices</b> 12:7 21:16  26:13 35:7,15 44:3  44:13 55:17,18,20  58:19 63:9 64:17  66:5 68:17 69:7,9  70:19 71:1 80:2  126:5  <b>precipitation</b> 124:7  <b>precision</b> 57:14  <b>precision/decision</b>  44:16  <b>predicted</b> 90:2  <b>predictions</b> 79:17  <b>prepare</b> 3:15  <b>present</b> 40:15  <b>presentation</b> 4:20  <b>presenting</b> 40:14  <b>pretty</b> 20:18 48:3  78:6 79:17 80:20  124:11 125:13  126:4  <b>preventing</b> 35:2  <b>previously</b> 122:7  <b>price</b> 100:9  <b>primary</b> 137:7  <b>Prince</b> 120:5  <b>prior</b> 34:20  <b>prioritize</b> 58:5  <b>prioritized</b> 101:3  <b>priority</b> 63:17  <b>private</b> 11:20 78:14</p>	<p><b>probably</b> 33:10  44:12 48:18 52:4  75:9 89:21 99:10  115:9,21 118:15  130:10  <b>problem</b> 40:10 59:1  59:1,20 74:6,16  94:15 96:11 113:14  126:18 127:1  <b>problems</b> 59:8,13,16  64:10 101:10,21  102:6 136:20  <b>proceeding</b> 139:6,9  <b>proceedings</b> 138:13  139:11  <b>process</b> 3:17,20 4:15  11:6 16:13 24:3  25:17 51:13 62:15  96:19 98:13 138:12  <b>processes</b> 18:5 68:20  <b>processing</b> 138:7  <b>produce</b> 87:19 88:16  <b>profile</b> 96:19  <b>profit</b> 109:10  <b>program</b> 11:10  13:16 31:15 45:15  46:4 51:6 55:16  62:16 73:2,3 83:17  84:5 102:17 103:9  107:10 108:7  109:20 117:5 119:9  128:19 134:17  <b>programmatic</b> 21:11  <b>programs</b> 26:20  31:13,15 32:2  34:18 36:8 45:1  104:1,10,16 105:10  107:14 108:15  110:5  <b>progress</b> 6:11,12  8:11 9:1,8,13,14  10:17 15:21 18:21  22:20 24:15 39:9  90:9,10 92:3,7  101:2,16 115:7  116:3 119:17,21</p>
---	--	--	--

<p>120:11,21  <b>project</b> 18:6  <b>projections</b> 124:11  135:2  <b>projects</b> 117:5  <b>proper</b> 46:2 56:2  71:1  <b>property</b> 109:13  110:3 111:13,17  <b>proportional</b> 77:3  122:2  <b>proposed</b> 70:14  <b>protect</b> 106:13  <b>Protection</b> 69:1  <b>protocol</b> 54:11  <b>protocols</b> 67:8  <b>proud</b> 93:6  <b>prove</b> 126:10  <b>provide</b> 51:9 53:5  61:20 62:21 102:20  106:2 130:20  <b>provides</b> 7:21  <b>providing</b> 63:3 105:6  <b>public</b> 1:11 3:11 7:19  8:7 11:19 14:1  25:11 27:13 130:5  139:4  <b>publicly</b> 71:16  <b>published</b> 62:19  <b>puking</b> 83:10  <b>pull</b> 26:10 91:5  <b>pulled</b> 26:3  <b>pumping</b> 100:17,18  101:2  <b>purchase</b> 128:12,13  <b>purpose</b> 69:12  137:14 138:7  <b>purposefully</b> 28:5  <b>push</b> 98:18  <b>put</b> 8:4 11:18 12:1,8  20:8 24:7 25:21  34:1,10 38:7 46:15  50:18 56:13 57:11  57:21 58:20 64:5  70:19 86:19 93:2  96:3,7 98:1,7 101:1</p>	<p>107:10 108:10  131:3  <b>putting</b> 37:9 67:16  78:5 113:12  <b>P.G</b> 120:6  <b>p.m</b> 1:10 138:13</p> <hr/> <p style="text-align: center;"><b>Q</b></p> <hr/> <p><b>QA/QC</b> 46:3  <b>quadruple</b> 118:14  <b>quality</b> 5:7,12 44:4  50:6 95:7,7  <b>quarterly</b> 24:13  <b>question</b> 4:1 43:5  55:15,21 75:3,12  103:17,17 104:13  107:20 109:7  110:15 117:19  123:13,14 124:1  129:18 132:12  135:16  <b>questions</b> 3:13 4:19  4:20 48:15 54:10  95:21 97:4 107:12  117:11 128:4  <b>quick</b> 3:9 43:5 93:5  102:8  <b>quickly</b> 4:19 90:3  95:8 112:18  <b>quirks</b> 47:17  <b>quite</b> 6:15 7:16 18:4  18:12 36:4</p> <hr/> <p style="text-align: center;"><b>R</b></p> <hr/> <p><b>R</b> 3:1  <b>radiation</b> 72:9  <b>radish</b> 50:2,4  <b>rain</b> 96:16 102:5  <b>rainfall</b> 96:12 124:5  133:21  <b>rains</b> 99:18  <b>rambling</b> 83:9  <b>ramped</b> 28:6  <b>ramping</b> 43:20  <b>ran</b> 13:9  <b>random</b> 135:11,12</p>	<p><b>rate</b> 35:13  <b>ratios</b> 68:11 111:7  112:12  <b>ratio's</b> 129:11  <b>raw</b> 35:1,3 39:6  84:19 93:19  <b>reach</b> 61:8 94:12  <b>reached</b> 130:14  <b>reaction</b> 64:19  <b>reactions</b> 136:11  <b>read</b> 33:9 42:1 44:6  86:8  <b>reading</b> 47:21  <b>readjust</b> 87:8  <b>reads</b> 33:16  <b>real</b> 42:4 93:5 110:1  123:13 127:9  <b>realize</b> 9:9 84:16  <b>really</b> 4:10,11 8:11  9:7 10:3 13:8 18:17  19:7,14 27:14 32:9  39:2 46:2 55:18,19  65:1 81:2 82:17,19  83:3 91:16 93:6  97:4 98:8 99:5  105:6,13 115:20,20  118:8 124:10  125:20 133:6  <b>reason</b> 59:7 116:20  118:7 127:20 135:5  136:18  <b>reasonable</b> 7:10,21  <b>reassure</b> 48:6  <b>recalibrate</b> 59:5  <b>recalibration</b> 59:18  <b>received</b> 75:8  <b>recognition</b> 60:9  <b>recognize</b> 95:7  <b>recognized</b> 52:8  105:20  <b>recognizes</b> 62:12  <b>recommend</b> 95:11  <b>recommendations</b>  20:5  <b>recommended</b> 98:3  <b>recommending</b></p>	<p>115:3  <b>record</b> 61:4,5 64:1  134:11 139:10  <b>recorded</b> 139:9  <b>recording</b> 8:14  127:15  <b>recovery</b> 34:6  <b>red</b> 40:20  <b>reduce</b> 16:9 74:15  <b>reduced</b> 39:10  <b>reducing</b> 65:9  <b>reduction</b> 22:9,10  23:17 24:9 37:16  51:2 56:2,8 73:19  77:2 122:3,9  125:12 126:15,16  <b>reductions</b> 18:2 21:1  22:8 33:21 34:12  36:15 38:9 44:19  44:20 51:10 72:2  126:12  <b>reference</b> 128:12  <b>referred</b> 47:21  <b>referring</b> 129:16  <b>refine</b> 23:20  <b>refined</b> 25:2  <b>refinements</b> 25:13  <b>reflect</b> 7:6  <b>reflected</b> 8:21 111:3  <b>regarding</b> 20:5 96:3  <b>regardless</b> 21:11  120:4  <b>Region</b> 69:1  <b>regionally</b> 29:4  <b>regions</b> 28:19  <b>regrets</b> 87:5  <b>regularly</b> 72:10  <b>regulate</b> 66:9,10  102:11  <b>regulated</b> 5:16,17  66:8,16 67:20 75:5  <b>regulations</b> 72:3,19  91:3,3 103:3  <b>regulatory</b> 6:20 7:7  <b>related</b> 49:17 75:3  117:11,18 139:14</p>
---	---	--	---

<p><b>relates</b> 56:6  <b>relative</b> 69:16  <b>relatively</b> 89:17  <b>relining</b> 101:11  <b>remaining</b> 25:8              57:20 58:1  <b>remediated</b> 56:16  <b>remember</b> 42:16              45:19 131:5 132:1  <b>remind</b> 28:7  <b>removal</b> 136:11  <b>remove</b> 73:14  <b>removed</b> 89:17  <b>reorganization</b>              104:11  <b>replacing</b> 101:12  <b>report</b> 15:4 20:5,11              66:21 67:1,8 68:14  <b>reported</b> 1:10 8:21              23:8 66:17  <b>REPORTER</b> 61:1              125:9 127:18  <b>reporting</b> 1:18 14:14              14:19 15:3 19:4              24:11 66:18 67:9              69:9  <b>reports</b> 9:1  <b>representative</b> 61:9  <b>represented</b> 97:8  <b>require</b> 10:18 59:18              70:15,20 73:6  <b>required</b> 6:21 10:5              50:21 67:1,9 72:7              122:2 128:13 129:1  <b>requirement</b> 50:14  <b>requirements</b> 7:10              70:1 74:11  <b>requiring</b> 10:13 21:9  <b>reserve</b> 31:14  <b>resides</b> 19:8  <b>resolve</b> 75:10  <b>resources</b> 31:11,17              32:2 34:17 36:5              44:18 45:2 95:20              105:19  <b>respect</b> 133:3</p>	<p><b>respects</b> 19:6  <b>respond</b> 60:7 95:8,13  <b>responded</b> 130:9  <b>response</b> 20:10  <b>responsibility</b> 19:7  <b>responsible</b> 71:8              72:1,5  <b>restoration</b> 6:9 12:5              18:3 20:6 67:12              75:8 113:5 118:12  <b>restore</b> 6:19  <b>restored</b> 6:17  <b>retail</b> 95:18  <b>retained</b> 104:10  <b>retrofit</b> 10:2  <b>reuse</b> 49:15  <b>revenue</b> 120:12,14  <b>reversed</b> 57:16  <b>review</b> 3:11 8:7 14:1              14:5 103:5  <b>revised</b> 81:2  <b>revision</b> 14:2 126:3  <b>revolving</b> 76:9              119:11  <b>Rhoderick</b> 2:7 3:18              25:16,18,19 37:21              43:11,14,19 54:18              57:18 58:11 60:10              61:13 62:8 65:1              70:13,17 88:7 93:5              93:14 94:13,21              95:6 104:12 106:15              107:3,16 108:17              109:15 110:7 111:6              111:20 112:8 113:7              116:12 117:7 122:5              122:17 128:18              129:8,12 132:1  <b>Rich</b> 25:21 30:13              32:6 33:5 37:2,7              38:6 40:14,18              50:12,15 53:10              54:9 57:18 65:16              68:3  <b>Richard</b> 2:3 3:4 66:7  <b>right</b> 4:2 24:4 32:17</p>	<p>46:17 53:16 57:9          59:19 62:4 73:5          81:6,12 82:2,3,9          91:1 93:7 94:6          95:12 100:2 104:14          105:7,21 107:3          108:9 112:15          120:10,18 126:4,9          128:21 129:12  <b>rising</b> 125:3  <b>River</b> 28:21 29:12              41:6 97:15 99:1  <b>Riverkeeper</b> 95:17  <b>road</b> 1:8 95:13              132:17  <b>roll</b> 15:4 63:6 105:10  <b>roof</b> 34:10  <b>room</b> 27:4 32:18              33:3  <b>roughly</b> 126:8  <b>ruled</b> 69:21  <b>rules</b> 87:11 94:18  <b>run</b> 13:5 22:20 79:16  <b>rundown</b> 3:9  <b>running</b> 51:6 65:16              65:18  <b>runoff</b> 15:20 34:5              101:18  <b>runs</b> 14:2 90:21              109:13  <b>rural</b> 76:8 119:8</p> <hr/> <p style="text-align: center;"><b>S</b></p> <hr/> <p><b>s</b> 3:1 120:6  <b>safety</b> 6:2,7 129:16  <b>salable</b> 132:5  <b>sanitary</b> 80:11              101:19  <b>sat</b> 31:9  <b>satisfactory</b> 91:16  <b>saturate</b> 137:4  <b>save</b> 131:16  <b>saw</b> 34:14 37:6 44:13              53:11 55:3 58:3              60:14 105:16,17  <b>saying</b> 23:14 36:5</p>	<p>39:5 43:4 49:16          69:9 70:7 78:21          85:17 111:5 125:10          132:8  <b>says</b> 7:18 13:1 37:14              38:6 39:8,10,11,19              49:9 62:18 86:16              91:11 104:20              134:18  <b>scale</b> 15:4,5 19:2,6              19:15  <b>scenario</b> 12:3 96:5  <b>scenarios</b> 13:10  <b>schedule</b> 25:8 62:9  <b>science</b> 2:4 3:4  <b>screen</b> 44:13  <b>screws</b> 94:20  <b>scripted</b> 29:19  <b>scrutinized</b> 88:18  <b>se</b> 80:6 132:21  <b>seal</b> 139:17  <b>second</b> 30:19 31:18              43:21 45:18 56:17              56:19 58:2  <b>secondary</b> 10:1  <b>section</b> 14:9 16:12,16              125:18  <b>sections</b> 106:18  <b>sector</b> 14:11 50:18              67:18 77:9 78:14  <b>sectors</b> 19:1 53:18,21              54:8  <b>sediment</b> 22:12              94:18 103:7 125:2              125:7,12,17,21              126:7,8,16,20  <b>sediments</b> 126:2  <b>see</b> 12:16 16:18              20:10,11,15 22:12              28:16 30:3,6 32:19              32:20 33:10 36:3              36:19 38:7,11              39:15 40:2,15 41:2              41:7 43:21 45:10              45:11,13,16 47:17              54:6,7 56:11 58:13</p>
---	--	---	--

<p>62:9,9,18 71:9              80:20 103:10 110:4              110:19 116:9 122:7              126:1 128:2 130:8              133:5  <b>seeing</b> 46:20 66:10              123:17  <b>seen</b> 17:6 98:20              106:16,17  <b>sees</b> 33:11  <b>sell</b> 132:6  <b>seller</b> 112:1  <b>send</b> 93:3 105:11  <b>sense</b> 42:5 46:16  <b>sent</b> 16:19  <b>sep</b> 84:18  <b>separate</b> 67:6 68:20  <b>separated</b> 64:8  <b>separately</b> 26:4  <b>September</b> 83:15  <b>septic</b> 15:15,18 18:19              20:1,5 25:4 26:7              65:7 67:10,11 75:3              75:6,9,12,19 76:4              77:15,21 78:7              86:14,15,18 94:18              111:15 131:19  <b>septics</b> 26:16 65:9              78:12 121:10  <b>sequencing</b> 57:2  <b>series</b> 27:10  <b>seriously</b> 114:13              115:8  <b>service</b> 105:6  <b>services</b> 1:18 2:4 3:4  <b>session</b> 19:21 20:17  <b>sessions</b> 13:16  <b>set</b> 11:16 17:13 27:9              29:19 30:21 34:15              44:11 48:15,21              49:6 51:13 65:9              66:11 76:15 79:9              117:6 120:13 139:7  <b>setback</b> 70:1,15,21  <b>sets</b> 30:17,18 31:5  <b>setting</b> 6:6 26:21</p>	<p><b>seven-billion-dollar</b>              119:19  <b>sewage</b> 84:20 89:16              100:20  <b>sewer</b> 67:6 80:12              85:3 101:19  <b>sewerage</b> 135:18  <b>shape</b> 113:6  <b>share</b> 109:9,11 110:5  <b>Shawan</b> 1:8  <b>shell</b> 87:9  <b>sheltered</b> 127:9  <b>shifting</b> 74:17  <b>shifts</b> 44:15  <b>shop</b> 53:1  <b>shore</b> 14:18,18 28:18              29:10 41:3,10,15              42:2 82:7 121:20              122:1  <b>short</b> 130:18  <b>shortfall</b> 121:8  <b>shot</b> 129:19  <b>show</b> 44:1 63:6              119:21  <b>showed</b> 122:6  <b>showing</b> 47:19 89:13              93:18  <b>side</b> 3:19 32:8 113:20  <b>signed</b> 6:10  <b>significant</b> 36:15              48:4 89:14 121:7  <b>significantly</b> 36:20              37:1  <b>silly</b> 88:3  <b>similar</b> 25:20 70:11  <b>Similarly</b> 39:9  <b>simple</b> 5:13 33:6              34:11 37:8 112:2  <b>simplify</b> 71:14  <b>simply</b> 33:19 34:4              101:11  <b>simulate</b> 12:18,19  <b>simulates</b> 57:5  <b>singling</b> 127:11  <b>sit</b> 38:5 61:15  <b>site</b> 8:5 17:10 45:8</p>	<p>52:1 128:6  <b>sitting</b> 32:17 127:14  <b>situation</b> 92:17  <b>six</b> 49:17 97:13  <b>size</b> 134:6  <b>slide</b> 28:4 33:8 39:2              44:8 60:12  <b>slight</b> 133:21  <b>slightly</b> 128:14,15  <b>slow</b> 6:13  <b>slower</b> 18:14  <b>sludge</b> 88:20,21 89:3              91:2  <b>slurry</b> 47:13 112:17  <b>small</b> 95:18 135:6  <b>smaller</b> 10:16  <b>smog</b> 137:19  <b>smoke</b> 87:8 89:4  <b>soil</b> 29:17 52:13              55:14 107:9 113:18              134:2  <b>soliciting</b> 92:17  <b>somebody</b> 24:14              76:16 77:10 109:3              124:12  <b>somebody's</b> 50:19              51:2  <b>something's</b> 85:10  <b>somewhat</b> 26:17              56:20,21 57:16  <b>sorry</b> 54:1 61:1              92:21 123:1 125:9  <b>sort</b> 3:9,19 9:5 10:21              12:4 15:20 18:12              79:18 117:16,18  <b>Sounds</b> 106:3  <b>source</b> 5:17 23:3,4              23:10  <b>sources</b> 5:16 7:5,5              96:4 102:2  <b>space</b> 135:12  <b>speak</b> 61:2  <b>SPEAKER</b> 66:7              129:21 133:17              134:3,9  <b>special</b> 61:8</p>	<p><b>species</b> 117:4  <b>specific</b> 38:6 49:3              107:4 113:12 131:3  <b>specifically</b> 27:3              28:20 56:3 126:11  <b>specificity</b> 11:13  <b>spending</b> 90:3  <b>spent</b> 8:16 85:16              121:2  <b>spill</b> 131:18 132:15              133:3  <b>spills</b> 99:17,19              134:13 135:11  <b>spitting</b> 47:3  <b>split</b> 118:15  <b>spoke</b> 71:3,5 119:2  <b>spoken</b> 71:11  <b>spotlight</b> 116:5  <b>spread</b> 88:19 89:3,4  <b>spreading</b> 88:20,21  <b>spreadsheet</b> 12:5              33:6 37:6,7,19  <b>spreadsheets</b> 13:3              57:4  <b>spring</b> 130:11  <b>stabilized</b> 89:12  <b>stable</b> 79:16  <b>stack</b> 137:16  <b>staff</b> 52:7 104:3  <b>stand</b> 20:15  <b>standard</b> 70:19  <b>standards</b> 5:7,12              73:6  <b>standing</b> 53:14  <b>start</b> 22:18 28:3              52:20 59:9,12 63:2              83:8,9,11 88:10,12              106:6,10 115:3              120:7,20 130:5,10  <b>started</b> 17:16 19:4              19:21 21:5 30:20              30:21 33:16 54:19              54:21 76:16 94:14              127:16  <b>starting</b> 15:14              112:17</p>
--	--	--	---

<p><b>state</b> 11:17 14:10                  25:9 26:18 28:10                  28:11 41:12 61:14                  64:15 67:14,15                  71:7 73:2 74:8 76:9                  78:19 86:8,17 90:5                  90:19 92:13 117:14                  119:11,15 133:15                  136:2 139:1,4  <b>statement</b> 55:15                  95:11  <b>states</b> 48:14 71:14,19                  74:14,15 92:13                  102:5 116:5  <b>statewide</b> 11:10                  14:10 15:7 39:19                  42:6,14 53:12,15                  53:20 54:13 98:3,9                  117:17 118:1 127:2  <b>stations</b> 100:18,19                  100:19 101:2  <b>stats</b> 68:5  <b>stay</b> 95:14 137:4  <b>staying</b> 117:12  <b>stenographically</b>                  139:9  <b>step</b> 11:6 20:13                  36:12 136:4  <b>steps</b> 23:19 48:11  <b>STEWART</b> 100:8                  103:1  <b>sticking</b> 8:10  <b>stop</b> 4:19 85:10  <b>stopped</b> 127:16  <b>storm</b> 10:13,14,18                  18:19 26:8 67:2,3,6                  68:8,16 76:18                  80:15 97:3 99:12                  101:18 102:9,10,14                  102:21 103:2 120:3                  120:6 121:9 124:6                  124:7  <b>storms</b> 124:5 125:17  <b>strategies</b> 13:9,11,20                  15:6 21:8 31:7  <b>strategy</b> 12:5 20:20</p>	<p>20:21 21:3,21 22:3                  26:2 31:21 32:1                  39:18 41:5 44:17                  45:5,6 65:2 66:1                  105:18  <b>stream</b> 111:17  <b>streams</b> 92:1  <b>Street</b> 1:19  <b>streets</b> 15:19  <b>stringent</b> 15:14                  74:11 79:11,14                  80:1,6  <b>structure</b> 120:8  <b>studied</b> 86:8  <b>studies</b> 101:7  <b>study</b> 18:8,8,9  <b>stuff</b> 19:13 30:7                  42:11,21 66:12                  80:16 85:6 88:9                  92:7  <b>subcommittees</b>                  48:21 49:3  <b>submission</b> 3:15                  13:21  <b>submit</b> 13:4 14:7                  21:21 45:5,15,16                  46:1 62:17 67:7                  118:1  <b>submitted</b> 11:8                  20:20 25:9 35:9                  55:7 118:9  <b>submitting</b> 45:18  <b>subsequent</b> 24:2  <b>subsequently</b> 77:8  <b>subtraction</b> 23:13  <b>Suburban</b> 80:11  <b>sudden</b> 111:15  <b>suddenly</b> 42:3  <b>sue</b> 132:7  <b>sued</b> 81:5,13,14,14                  85:12  <b>sufficient</b> 24:15                  36:15  <b>suggest</b> 40:11 42:3  <b>suing</b> 74:15  <b>suite</b> 1:19 44:2 60:15</p>	<p><b>sulfur</b> 73:7,8,8,9,17                  136:19  <b>Summary</b> 45:3  <b>summer</b> 5:4 99:1  <b>supporting</b> 17:1  <b>supposed</b> 43:18 81:7                  84:10 86:2 87:15                  87:16,17 89:4,5                  99:17 103:11  <b>Supreme</b> 70:8  <b>sure</b> 4:16 43:17                  46:18 50:10 66:4                  89:19 93:2,3 104:9                  107:13 109:8                  114:10 120:16                  123:5 126:1  <b>survey</b> 60:21 61:6,7  <b>Susquehanna</b> 14:16                  14:17 41:10  <b>sustainability</b> 20:2  <b>Swackhamer</b> 110:15                  110:16 111:9 112:6                  112:15  <b>system</b> 32:9 67:6                  71:7 75:9 77:21                  78:3,5,8 99:21                  100:16 101:5,11,13                  101:13  <b>systems</b> 8:14,19                  15:15,19 18:20                  20:6 25:4 67:10                  75:3,6,12,19 76:4                  77:15,18,19 78:7                  101:4,8</p> <hr/> <p style="text-align: center;"><b>T</b></p> <hr/> <p><b>table</b> 63:5 98:1  <b>tag</b> 100:9  <b>take</b> 3:19 11:6 14:5                  30:4 36:14 39:2                  55:6 59:12 65:14                  66:13 73:20 79:19                  95:8,19 131:19                  136:3 138:8  <b>taken</b> 56:15  <b>takes</b> 13:6 18:7,10                  43:21 54:5 101:14</p>	<p>136:19  <b>talk</b> 16:20 26:15,18                  30:19 53:4 82:8                  83:3 91:9 105:16                  114:13 117:7                  118:20 127:7  <b>talked</b> 11:20 44:10                  44:16 61:14 75:4                  88:5 109:18 114:1                  130:5 131:4  <b>talking</b> 26:19 52:9                  70:13 72:11 73:5,8                  75:6 84:15 85:11                  111:6 118:12                  133:14  <b>talks</b> 112:12 128:20  <b>tank</b> 86:19  <b>tanks</b> 65:7 86:14,15                  111:15  <b>tapered</b> 38:10  <b>target</b> 14:10 30:7                  76:14 78:21  <b>targeted</b> 79:7 80:8  <b>targeting</b> 76:15  <b>targets</b> 44:21 53:12                  133:14  <b>task</b> 19:20,20 20:1,3                  20:10 98:3 130:7  <b>tax</b> 120:7  <b>taxpayers</b> 110:8  <b>team</b> 16:19  <b>teams</b> 11:14,17,18                  15:8 16:13,17 21:6  <b>tell</b> 10:8,10 24:4                  25:17 27:18 47:5                  52:16 89:2 91:19                  115:4  <b>telling</b> 23:15  <b>tells</b> 12:11  <b>temperature</b> 73:15  <b>ten</b> 6:18 9:7 97:7                  98:4 129:1,5  <b>ten-year</b> 124:16,18                  124:20  <b>term</b> 37:11 108:5                  133:1</p>
---	--	--	---

<p><b>terms</b> 13:2 18:1 80:7 101:6,17 134:6 <b>terrain</b> 70:2 <b>territory</b> 111:11 <b>tested</b> 86:17 <b>Thank</b> 37:21 64:2 100:3 127:18 131:10 138:11 <b>Tharpe</b> 55:13,13 57:8 93:11 113:17 113:17 116:21 117:9 120:15 121:6 122:16 <b>Theaux</b> 95:16 <b>Theoretically</b> 64:16 <b>They'd</b> 116:1 <b>thing</b> 9:2 32:6 39:1 48:14 49:19 50:9 61:21 75:17 84:14 87:3 91:18 101:14 103:8 <b>things</b> 6:12,13 15:12 18:14 23:4,6 24:6 38:15 45:17 46:15 46:21 47:15 48:18 48:20 49:4,11,17 50:9 58:18 64:4 66:17 71:14 75:16 83:15 84:6 88:6 89:15,19 90:5 91:12 92:6 103:2 118:2 119:4 132:10 132:14 <b>think</b> 5:2 12:4 20:17 21:13 26:4 40:10 41:20 47:9,10 54:10 57:12 59:21 62:21 63:16 68:17 71:17 72:3 73:4 78:13,13 82:17,18 90:14 91:1,20 94:1 94:4 100:8 102:4 106:7 111:12,18 114:8 119:11 121:12 123:14 127:2,4 130:3</p>	<p>132:12 <b>third</b> 56:21 <b>thought</b> 28:1 64:4 80:3 123:9 <b>thousand</b> 129:3,4 <b>threatens</b> 64:14 <b>three</b> 10:3 13:15 26:14 29:1 45:16 49:2 58:7 95:21 97:10 102:15 103:4 117:4 136:6 <b>thresholds</b> 113:3 <b>thrilled</b> 94:8 <b>Thursday</b> 1:7 <b>tie</b> 109:2 <b>till</b> 81:19 <b>tillage</b> 50:8 <b>tilled</b> 108:3 <b>time</b> 13:7 15:16 17:13 18:7,10 29:19,20 30:9 31:6 31:7,18 33:7 37:2 38:3 41:15 45:17 47:2,7 50:5 59:10 81:11 88:17 89:7 95:8 99:18 101:15 120:20,21 121:5 123:15 130:19 134:19 138:11 139:7 <b>times</b> 8:6 45:16 97:7 97:10 137:3 <b>TMDL</b> 3:6 5:1,8 6:18,21 7:1,3,4,7,9 8:1 16:3 50:21 51:10 64:11 66:3 69:5 79:14 80:1,8 83:4 <b>today</b> 85:17 <b>toes</b> 20:13 <b>told</b> 29:20 91:13 92:10 <b>tomorrow</b> 45:7 <b>tonight</b> 82:8 83:2 127:6,14 128:2 <b>tool</b> 12:1,3,17 37:3</p>	<p>48:12 111:21 <b>tools</b> 31:5 <b>top</b> 43:8 72:1 <b>total</b> 5:9,13 71:16 118:5 124:4 <b>totally</b> 132:6 <b>touched</b> 19:2 <b>tough</b> 41:15 <b>tougher</b> 42:20 <b>Town</b> 4:3,12 <b>track</b> 8:20 67:15 75:6 95:15 134:11 <b>tracked</b> 66:16 67:13 67:19 68:1 69:8 134:8 <b>tracker</b> 32:12 35:8 67:15 114:11 <b>tracking</b> 8:11,13 24:11 32:9 35:7 69:4 132:14 <b>trade</b> 113:1,10,14 128:21 <b>trades</b> 112:19 131:14 <b>trading</b> 110:18 111:2 111:11 128:19 129:1,7,9 <b>train</b> 37:20,21 38:1 57:7 <b>training</b> 13:14,14,17 51:6 107:14 <b>transcript</b> 128:1 139:10 <b>transparent</b> 7:20 <b>transport</b> 99:21 <b>treated</b> 82:18,21 <b>treatment</b> 9:20 10:1 15:13,18 18:6,16 22:21 38:1 57:7 64:6 65:15 66:19 75:20 76:2 78:11 96:13 97:2,12,14 99:11 100:19 101:1 102:12 119:8 126:13 132:15 134:11 135:18 136:10 138:5</p>	<p><b>trend</b> 123:16 <b>tributary</b> 113:9,13 <b>tried</b> 40:20 <b>triple</b> 118:14 <b>true</b> 55:19 56:8 126:10 139:10 <b>trust</b> 106:1 118:18 <b>try</b> 20:12 53:7 76:13 120:21 <b>trying</b> 12:20 58:4 86:11 91:5 92:11 107:10 130:4,5 137:21 <b>turn</b> 24:10 121:15 <b>tweak</b> 13:8 <b>twist</b> 94:20 <b>two</b> 9:13 22:2 30:16 30:18 31:5,6 32:4 41:7 43:21 56:11 56:11 59:11 68:20 70:10 84:4,10 85:20 88:21 90:3 103:7 107:12 118:16 120:5 128:7 134:14 <b>two-year</b> 9:3 30:12 <b>type</b> 107:21 108:15 <b>typo</b> 43:11</p> <hr/> <p style="text-align: center;"><b>U</b></p> <hr/> <p><b>uh-oh</b> 9:9 <b>unaware</b> 105:10 <b>Undersecretary</b> 119:2 <b>understaffed</b> 105:17 <b>understand</b> 3:14,17 13:17 27:6 29:5 43:2 47:17 52:14 61:16 83:5 86:12 87:14 92:9 102:12 <b>understanding</b> 25:5 125:16 130:1 <b>understood</b> 43:18 <b>unfortunate</b> 82:17 <b>Unfortunately</b> 76:16 <b>unit</b> 63:7</p>
--	---	--	---

<p><b>United</b> 102:5  <b>units</b> 19:12  <b>unknowns</b> 120:19  <b>untreated</b> 88:12  <b>upcoming</b> 119:20  <b>update</b> 40:19 50:6  <b>updated</b> 97:15,17  <b>updating</b> 58:9  <b>upgrade</b> 15:15 76:3  80:13,14 98:2,10  98:15  <b>upgraded</b> 25:2 65:8  <b>upgrades</b> 67:11 75:9  100:11 119:7 120:3  <b>upgrading</b> 15:13  18:5 78:7,11 98:19  <b>uptake</b> 56:7  <b>urban</b> 21:12 26:8,16  27:9 28:10,11 32:8  48:17,17 63:8 64:7  80:19 81:4 131:19  <b>USDA</b> 76:8  <b>use</b> 12:9 13:3 16:6  25:5 45:21 48:12  49:14 50:2 52:11  59:6 60:17 63:1,5  63:19 111:4,21  124:15 126:5  131:18  <b>uses</b> 12:7 38:6  <b>usually</b> 99:4,19  <b>utility</b> 120:6  <b>utilize</b> 88:17</p> <hr/> <p style="text-align: center;"><b>V</b></p> <p><b>vacation</b> 25:15  <b>validating</b> 63:3  <b>validation</b> 46:10  60:6  <b>Valley</b> 68:3 103:19  <b>valuable</b> 30:5 36:11  <b>value</b> 44:9 58:1  120:6  <b>values</b> 110:18  <b>valve</b> 110:21  <b>Vanessa</b> 60:3</p>	<p><b>variables</b> 133:17  <b>variation</b> 124:19  134:1  <b>variations</b> 123:18  <b>varies</b> 41:2  <b>various</b> 79:16  <b>Vaughan</b> 82:12 83:6  83:6 88:8  <b>venture</b> 70:12  <b>verification</b> 51:15  107:18  <b>verified</b> 68:1 107:15  <b>version</b> 14:7  <b>versus</b> 29:11 43:3  44:17  <b>viability</b> 64:14  <b>view</b> 45:9 127:8  <b>Virginia</b> 93:9 94:9  <b>visit</b> 62:1  <b>visiting</b> 105:4  <b>voluntary</b> 51:17 71:1  132:2</p> <hr/> <p style="text-align: center;"><b>W</b></p> <p><b>wait</b> 47:8 59:6 81:19  <b>Wally</b> 64:3  <b>want</b> 4:16 8:7,9,14  12:9 20:12 21:13  24:13,16,17 28:3,7  30:2,3,3 40:11,15  41:7 48:18 50:10  51:12,20 53:4 55:4  60:5 63:19 65:6,12  66:4 72:20 75:19  77:1 84:15 87:3  88:9 96:1 109:2,2  110:9 113:19  115:19 116:18  121:11 122:8  127:10 129:19  131:5 132:6 133:11  <b>wanted</b> 11:21 17:16  76:20 96:20 113:9  113:10,15 130:8  <b>Washington</b> 80:11  112:4,10</p>	<p><b>wasn't</b> 6:17 46:16  104:3  <b>waste</b> 5:14,18 7:12  <b>wastewater</b> 9:20  15:13,18 18:6,15  20:3 22:21 26:6,15  64:6 65:15 66:19  75:20 76:2 78:10  86:15 88:11 96:13  97:2,11,13 99:11  102:12 119:8  126:13 132:15  136:9 138:4  <b>watched</b> 117:4  <b>watching</b> 133:12  <b>water</b> 5:6,11,11,12  6:10 7:1 10:13,14  10:18 11:9 17:11  18:19 26:8 49:14  67:2,3 68:8,16 69:1  69:2,17 76:18  80:12 81:1 86:21  91:10,20 95:6,7,20  97:3 99:13 101:18  102:9,10,14,21  103:2 113:1 117:10  120:3,6 121:9  125:2,2,3 134:21  <b>watershed</b> 3:6 6:10  10:6,9 12:18,19,21  13:1,4 17:21 19:10  28:16 97:13 122:1  <b>Watersheds</b> 19:10  <b>way</b> 6:11 13:6 17:6  20:14 22:1,4,4  40:11 53:6 54:1  77:5,6 79:3 82:14  86:15 87:7 114:8  115:17 117:6  119:16 120:15  126:2 127:20 137:7  139:15  <b>Wayne</b> 69:20 121:20  <b>ways</b> 77:17 78:14  81:3  <b>weak</b> 125:13</p>	<p><b>weather</b> 123:18  <b>Web</b> 8:5 17:10 45:8  52:1 128:5  <b>weeds</b> 38:2  <b>week</b> 13:6 107:9  118:11  <b>weekend</b> 109:19  <b>weeks</b> 84:4 88:21  <b>wellers</b> 112:7,9  <b>well-mixed</b> 74:4  <b>went</b> 33:6,19 38:17  52:12 59:20 85:19  86:3,3,4 94:17  122:5 128:3  <b>weren't</b> 24:1 35:2  46:18 58:20 83:16  <b>west</b> 74:5  <b>Western</b> 14:18 41:9  <b>we'll</b> 9:13 15:2 20:16  52:4 53:7 73:18  77:9 118:20 120:16  127:3 133:15  <b>we're</b> 3:11 6:19 9:6  9:10,11,14 10:10  12:20 14:1,4 16:20  18:20 19:5 24:10  24:11,15 28:8,16  29:10,12,13 32:7  33:14,17 35:12  40:8,11 41:5,6,20  44:2,6,19,20 45:2  46:21 48:6 49:19  51:8,19 52:15  55:10,20 58:4 59:7  59:10 63:14 69:9  72:8,13 73:8,20  74:18,18 76:17,18  76:19 79:21,21  80:5 81:9 83:3,14  85:10 86:11 87:14  88:6,18 89:17  90:10,12 91:11,17  92:6,8,9,11,15,16  92:17,17,18 93:18  93:19 94:8 95:13  98:4,15 100:4</p>
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102:17 103:12 104:15 105:3 106:10 107:8 115:3 123:17 124:1 126:1 126:7 128:17,20 129:1,3 130:3 132:13,21 133:9,14 136:5 137:16,21 <b>we've</b> 6:12 8:4,4 35:16,21 42:17,17 46:19 50:6 52:6 66:4 74:9,12 75:4,8 89:12 93:14 94:5 100:10 114:1 116:21 117:7 119:1 125:20 <b>whatnot</b> 66:14 <b>what-ifs</b> 12:13 <b>whoops</b> 39:11 <b>widgits</b> 95:3,10 <b>wildlife</b> 102:1 <b>willing</b> 65:8 131:2 <b>Wills</b> 107:7,7,20 109:4,18 110:14 <b>winds</b> 74:4 123:20 <b>WIP</b> 1:2 3:12,14 17:7 39:19 45:3 54:13 63:11 69:5 83:4,13,17 97:6 98:2 119:3 123:6 130:7,17 131:3,7,9 132:21 133:3 <b>wiped</b> 85:6 <b>WIPs</b> 54:14 <b>witness</b> 139:17 <b>woman</b> 71:3,5,11 <b>word</b> 4:9 92:18 104:5 105:11 <b>words</b> 124:7 <b>work</b> 15:1 16:15 19:6,14,15 20:15 24:5,12,20 27:2,9 27:11 29:16 30:10 30:16 31:12,15 37:10,19 43:18 44:4 47:1 48:16,16	48:17,17 49:5,6 50:5 51:13 52:19 57:4 58:14 60:13 62:15 64:12 85:5 87:7 104:17 111:12 113:21 114:9 116:2 <b>worked</b> 27:16,20 31:6 38:15,16 <b>working</b> 6:8 14:21 18:11 19:5 26:12 36:7 50:10 55:2 58:7 68:18 69:2 74:18,19,19 91:1 96:5 100:4 102:17 104:9 105:5 107:8 111:16 114:10,11 125:19,21 128:17 <b>works</b> 27:13 38:4,12 55:5 86:21 112:16 116:10 136:19 <b>world</b> 33:14 87:17 87:19 90:12 <b>worry</b> 119:18 <b>worrying</b> 88:13 <b>worst</b> 121:4 <b>wouldn't</b> 40:11 75:10 <b>Wow</b> 17:8 <b>write</b> 7:14 <b>writing</b> 68:21 <b>written</b> 7:3 77:16 <b>wrong</b> 87:6 <b>wrote</b> 13:16 <b>WSSC</b> 80:10 <hr/> <b>X</b> <hr/> x 63:18 <hr/> <b>Y</b> <hr/> <b>yards</b> 86:20 <b>year</b> 46:1 49:2 50:3 51:21 52:4,5 60:14 62:10 70:10 80:21 80:21 85:13 86:17 93:20 96:11,12 117:6 124:17,18	130:2 133:21 134:19 <b>years</b> 6:18 9:7,13 18:4 32:13 58:7 59:11 81:10 84:8 85:20 87:21,21 88:1 89:21 99:9 102:15,17 103:4,7 124:20 125:20 130:20 <b>yell</b> 87:3 <b>yield</b> 56:4 <b>young</b> 127:13 <hr/> <b>Z</b> <hr/> <b>zone</b> 5:4 <b>zoning</b> 70:3 <hr/> <b>\$</b> <hr/> <b>\$20</b> 85:16 86:10 <b>\$5,000</b> 109:12 <hr/> <b>0</b> <hr/> <b>09</b> 54:3 <hr/> <b>1</b> <hr/> <b>1</b> 62:4 <b>1st</b> 1:7 88:19 139:17 <b>1.2</b> 100:7,10 <b>10</b> 93:19 <b>10,000</b> 87:21 109:16 <b>10/7/2015</b> 139:21 <b>100,000</b> 122:14 134:13 <b>11</b> 22:8 <b>1100</b> 129:4 <b>1114</b> 1:8 <b>12</b> 45:6 94:2 <b>120</b> 100:18 <b>13</b> 49:2 <b>13.7</b> 35:19 <b>140</b> 106:8 <b>15</b> 58:12 124:20 <b>15.1</b> 54:6 <b>15.2</b> 54:5 <b>160</b> 52:3 106:8 <b>17</b> 35:18 58:10,12,13	58:16 <b>17.7</b> 35:11 39:11 <b>177</b> 48:3 <b>18</b> 9:21 29:2 65:17 <b>19.7</b> 54:4 <b>1920</b> 86:19 <b>1972</b> 81:2 <b>1983</b> 6:9 <hr/> <b>2</b> <hr/> <b>2</b> 72:16 <b>2nd</b> 25:14 <b>20</b> 56:12,14 57:19,21 84:19 85:4 86:1 125:20 <b>200</b> 13:10 52:5 <b>200,000</b> 122:14 134:14 <b>2000</b> 6:16 9:5 <b>2006</b> 58:21 <b>2008</b> 9:9 103:21 106:14 <b>2009</b> 40:18,19 53:16 <b>2010</b> 11:8,10 22:9,10 22:19 23:3,11,14 40:18 <b>2011</b> 68:4 <b>2012</b> 1:7 24:2 49:1 104:10 106:14 131:1 139:18 <b>2013</b> 24:14 42:7 43:6 45:12 114:14 115:7 <b>2014</b> 100:13 <b>2015</b> 58:8 59:7 <b>2017</b> 13:19 17:14,17 25:2 42:8 43:7 45:12 114:4 126:3 127:4 <b>2020</b> 29:21 30:2,6 31:10,16 36:9 79:10 97:14 99:18 100:11 <b>2025</b> 13:19 17:15 30:1,11 42:8 45:12 114:5 <b>2050</b> 87:18
--	---	---	--

<p><b>21030</b> 1:9  <b>21202</b> 1:20  <b>217</b> 71:17  <b>22</b> 22:9 35:4,9 39:7  <b>23</b> 45:5,6 48:18  <b>235</b> 122:16,17  <b>24</b> 34:16  <b>25th</b> 25:10  <b>26</b> 22:11  <b>26,000</b> 42:18  <b>28</b> 39:8</p> <hr/> <p style="text-align: center;"><b>3</b></p> <hr/> <p><b>3</b> 69:1  <b>3,168</b> 43:9  <b>30</b> 84:19 106:2,9  <b>30th</b> 14:4,8 25:11,12      25:12  <b>30,000</b> 93:12  <b>31st</b> 131:1  <b>35</b> 28:12 81:10  <b>35-foot</b> 70:15,21  <b>39</b> 128:11</p> <hr/> <p style="text-align: center;"><b>4</b></p> <hr/> <p><b>4</b> 65:18  <b>40</b> 48:19 60:12 71:8      86:18 87:20 88:1  <b>41.010</b> 54:2  <b>41.1</b> 54:1  <b>41.7</b> 53:20  <b>410</b> 1:21  <b>48</b> 30:18  <b>49,000</b> 93:10,12</p> <hr/> <p style="text-align: center;"><b>5</b></p> <hr/> <p><b>5,000</b> 51:21  <b>5,280</b> 43:8,9  <b>50</b> 16:7,8 34:7 89:21  <b>500,000</b> 22:11  <b>51</b> 53:16  <b>54-inch</b> 84:18</p> <hr/> <p style="text-align: center;"><b>6</b></p> <hr/> <p><b>6th</b> 25:9  <b>6:30</b> 1:10  <b>60</b> 17:14 86:20 89:21</p>	<p><b>64,000-mile-square</b>      54:20  <b>67</b> 98:5  <b>68</b> 93:14</p> <hr/> <p style="text-align: center;"><b>7</b></p> <hr/> <p><b>7</b> 1:19  <b>70</b> 17:16 74:6 89:21  <b>705</b> 1:19  <b>7100</b> 1:21  <b>727</b> 1:21</p> <hr/> <p style="text-align: center;"><b>8</b></p> <hr/> <p><b>8:42</b> 138:13  <b>80</b> 52:3 57:20,21      106:9 136:15</p> <hr/> <p style="text-align: center;"><b>9</b></p> <hr/> <p><b>9</b> 35:13  <b>9th</b> 8:8 14:3,4  <b>95</b> 98:6  <b>99</b> 75:13</p>		
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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.

EVANS REPORTING SERVICES

7 North Calvert Street, Suite 705

Baltimore, Maryland 21202

(410) 727 7100

Page 2	Page 4
<p>1 ATTENDEES:</p> <p>2</p> <p>3 MR. RICHARD ESKIN</p> <p>4 Director of Science Services Administration</p> <p>5 Maryland Department of the Environment</p> <p>6</p> <p>7 MR. JOHN RHODERICK</p> <p>8 Administrator</p> <p>9 Maryland Department of Agriculture</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p>	<p>1 open it up to a question and answer period.</p> <p>2 So why don't I jump right on in. I</p> <p>3 would like to begin by acknowledging the Town</p> <p>4 Creek Foundation. They have given funding to</p> <p>5 the Hughes Agro-Ecology Center, Hughes Center</p> <p>6 for Agro-Ecology who organized this, did all</p> <p>7 the logistics. Without their help, we could</p> <p>8 not have done the job that we did in getting</p> <p>9 the word out to folks. I know some people</p> <p>10 will still be dissatisfied but we have really</p> <p>11 made a major effort and we really appreciate</p> <p>12 the help of both the Town Creek Foundation and</p> <p>13 the Agro-Ecology Center.</p> <p>14 I'm going to go over some basics</p> <p>15 because people may be new to this process. I</p> <p>16 want to make sure everybody at least has the</p> <p>17 bare bones about it and then I'll get into a</p> <p>18 little bit more detail, but I'll go through</p> <p>19 fairly quickly. You can stop to ask questions</p> <p>20 or ask questions after the presentation if you</p> <p>21 need to.</p>
Page 3	Page 5
<p>1 PROCEEDINGS</p> <p>2 * * * *</p> <p>3 MR. ESKIN: Okay. My name is</p> <p>4 Richard Eskin, director of science services at</p> <p>5 the Maryland Department of the Environment and</p> <p>6 I am MDE's lead on the Bay TMDL and Watershed</p> <p>7 Implementation Plan.</p> <p>8 This evening I am going to give you</p> <p>9 a quick rundown of sort of where we are and</p> <p>10 what Phase II is, what is in the document.</p> <p>11 We're currently in the public review period</p> <p>12 for the Phase II WIP and so we are here to</p> <p>13 answer questions that could help you better</p> <p>14 understand the WIP document itself, help you</p> <p>15 prepare your comments for submission if you're</p> <p>16 planning to do that, and then just help you to</p> <p>17 understand the general process.</p> <p>18 When I am done, John Rhoderick will</p> <p>19 sort of take the agricultural side, what they</p> <p>20 have done, the process they have gone through</p> <p>21 and where everything is now. And then we will</p>	<p>1 So let's begin with the TMDL. You</p> <p>2 know, well, everybody knows, I think -- well,</p> <p>3 people in Maryland at least know that every</p> <p>4 summer we have a large dead zone in the bay</p> <p>5 and that's, in our jargon, that means the bay</p> <p>6 is impaired, it does not meet its water</p> <p>7 quality standards.</p> <p>8 When that happens, we do a TMDL,</p> <p>9 Total Maximum Daily Load. That is an estimate</p> <p>10 of the maximum amount of pollutant that can</p> <p>11 enter a water body and still let that water</p> <p>12 body meet water quality standards.</p> <p>13 The concept is fairly simple. Total</p> <p>14 load equals the waste load allocation which is</p> <p>15 the loads of pollution coming from all the</p> <p>16 regulated sources. So if it needs a permit,</p> <p>17 it's a regulated source, it's part of the</p> <p>18 waste load allocation.</p> <p>19 Load allocation is basically</p> <p>20 everything else. That's the farms, it's the</p> <p>21 lawns, it's the atmosphere deposition that all</p>

Page 6	Page 8
<p>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</p>	<p>1 assurance that the TMDL will actually be                  2 implemented." So it calls to do an                  3 implementation plan.                  4       We've done that, we've put it out on                  5 our Web site. It's available. And again, I'm                  6 going to say this a few times, we are now in                  7 the public review period and we want your                  8 comments by March 9th.                  9       Of course, you have a plan, you want                  10 to know if you're sticking to the plan, so                  11 tracking and evaluating progress is really                  12 important. For those of you from local                  13 governments, developing, tracking and                  14 recording systems is very important. We want                  15 to give you credit for everything you have                  16 done, for every dollar you have spent, but we                  17 can't give you that credit if we don't know                  18 about it.                  19       So you need to develop those systems                  20 to track what you are doing so it can be                  21 reported to us so it gets reflected in our</p>
Page 7	Page 9
<p>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       As part of the TMDL, EPA                  10 requirements is something called reasonable                  11 assurance, particularly for the load                  12 allocation. For the waste load allocation                  13 where you have permits that is enforceable,                  14 you write permits, you have enforcement,                  15 inspections and so forth, the load allocation                  16 it's not quite such a clear guarantee that                  17 what you need to do will get done.                  18       So as part of that, EPA says, "Well,                  19 if you have a plan and that plan is public and                  20 it's transparent and we can hold you to that                  21 plan, then that provides better reasonable</p>	<p>1 progress reports to EPA.                  2       The other thing that's new in this                  3 accountability framework are these two-year                  4 milestones. What we used to do before, as I                  5 sort of alluded to, is in 2000 you would get                  6 this agreement: We're going to fix the bay in                  7 ten years, and you don't really check on your                  8 progress or do anything about it for the first                  9 eight. And then 2008, you realize, uh-oh,                  10 we're not going to make it.                  11       Well, it was determined that we're                  12 not going to do that anymore. So basically                  13 every two years we'll check on our progress.                  14 And what happens if we're not making progress,                  15 well, EPA has assured us that there will be                  16 federal consequences.                  17       What might those be? Well, they can                  18 open up the permits. That's where they have                  19 got their major control. So let's say that we                  20 have a minor wastewater treatment plant and                  21 it's discharging at 18 milligrams per liter</p>

3 (Pages 6 to 9)

Page 10	Page 12
<p>1 secondary treatment. They can say you will                  2 retrofit that plant and make it discharge at                  3 only three milligrams per liter and we really                  4 don't care where you get the money, you are                  5 required to do this.</p> <p>6 Which is why the Watershed                  7 Implementation Plan is so important because                  8 rather than having EPA tell us what to do, the                  9 Watershed Implementation Plan allows us to                  10 tell EPA how we're going to achieve our                  11 allocations.</p> <p>12 EPA could expand coverage. This                  13 might be requiring storm water permits. Not                  14 every county has a storm water permit.                  15 Although Baltimore County certainly does but                  16 smaller counties don't. EPA could say,                  17 Maryland, you're not making enough progress,                  18 we are going to require storm water permits                  19 across all of the counties.</p> <p>20 They can just do more enforcement                  21 which is sort of, you know, a lesser level of</p>	<p>1 developed a tool to help them put that plan                  2 together called MAST, or Maryland Assessment                  3 and Scenario Tool.</p> <p>4 Think of MAST as sort of a                  5 spreadsheet for doing restoration strategy.                  6 It essentially lists all of the best                  7 management practices, lists all the land uses.                  8 And then you put in what percentage of that                  9 land use you want to implement with a given                  10 BMP and then it adds it all up for you and                  11 tells you how much loads you have used, what                  12 your loads are.</p> <p>13 So you can do what-ifs. What if we                  14 used more of this practice and less of that.                  15 What if we used more of that and less of this,                  16 and see how it adds up.</p> <p>17 MAST is a helpful tool. What MAST                  18 actually does is simulate EPA's watershed                  19 model, it doesn't simulate the watershed                  20 itself. Rather, we're trying to make it like                  21 a watershed model because that's the final</p>
Page 11	Page 13
<p>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.</p> <p>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.</p> <p>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.</p> <p>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</p>	<p>1 decision maker. What the watershed model says                  2 is what you get in terms of credit.</p> <p>3 We used to have to use spreadsheets                  4 and we'd submit something for the watershed                  5 model run and it would come back and say, oh,                  6 you're way off and then -- it takes a week                  7 each time to do this. So you can imagine you                  8 didn't have many opportunities to really tweak                  9 your strategies. My department alone ran more                  10 than 200 MAST scenarios in order to help                  11 develop the strategies.</p> <p>12 So we have done that. Actually, we                  13 also gave local government folks hands-on                  14 training at MDE. We had a computer training                  15 group. They actually came in, three or four                  16 sessions. The person who wrote the program                  17 did the training to help them understand what                  18 we needed to be done.</p> <p>19 We had to develop 2017, 2025                  20 strategies. That's done. That was a                  21 submission that we gave to EPA about a month</p>

Page 14

1 ago, and now we're in the public review and  
 2 revision period. March -- it runs through  
 3 March 9th. And basically then between  
 4 March 9th and March 30th, we're going to  
 5 review your comments, take them into account,  
 6 make what changes we need to make in the final  
 7 version of the implementation plan and submit  
 8 it to EPA on March 30th.

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

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

19 Now, although we will be reporting  
 20 to EPA at the basin level, we will continue  
 21 working with the counties at the county level

Page 15

1 because that is where a lot of the work gets  
 2 done and that is where we'll be going. Expect  
 3 and hope for reporting on what has been at the  
 4 county scale and we will roll it up and report  
 5 to EPA at the basin scale.

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

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

17 That meant more hookups to those  
 18 wastewater treatment plants, more septic  
 19 systems in the ground, more paved streets to  
 20 increase runoff, so we sort of neutralized the  
 21 progress that we made.

Page 16

1 EPA said no, we can't do that  
 2 anymore. From now on, you know, whatever  
 3 loads are not already captured in the TMDL,  
 4 they are new loads and they need to be offset.

5 So if you're going to change the  
 6 land use, say, by developing an area, you're  
 7 going to increase the load by 50 pounds, you  
 8 have to find 50 pounds somewhere else that  
 9 you're going to reduce to offset the new load.

10 And there was some discussion of cost and  
 11 funding.

12 In Section II, that's all about the  
 13 process we have with the local teams, with the  
 14 local governments. The meetings we have, how  
 15 we work with them on MAST and so forth.

16 Section III is actually what we got  
 17 back from the local teams. So if you're from  
 18 Cecil or Harford or Baltimore, you could see  
 19 what your team sent in to MDE. And then we  
 20 talk a little about where we're going in  
 21 the future.

Page 17

1 There's lots of supporting  
 2 information in the appendices. I am not going  
 3 to go through them all but there's a lot of  
 4 information that is available online for you  
 5 to look at.

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

13 We have set time frames to getting  
 14 this all done. 2017 to get to 60 percent of  
 15 the implementation, 2025 to do it all. When  
 16 we had started out, we wanted to get to 70  
 17 percent of the implementation in 2017. People  
 18 said no, that is impossible. It's not fair,  
 19 and we listened. And so we backed off. So  
 20 now Maryland has the same basic pace as all of  
 21 the other jurisdictions in the bay watershed.

Page 18

1 We are doing very well in terms of  
 2 our overall reductions because of the Bay  
 3 Restoration Fund. That has been in place for  
 4 quite a number of years now. We have all of  
 5 our processes developed. And upgrading a  
 6 wastewater treatment plant is a big project  
 7 and it takes time. You do a feasibility  
 8 study, you do an engineering study, you do a  
 9 design study and you get contracts and it  
 10 takes a long time.

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

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

Page 19

1 sectors.

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

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

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

Page 20

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

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

19 Filling the gap. Not all counties  
 20 submitted to us the complete strategy. They  
 21 didn't give us a strategy that fully met their

Page 21

1 allocation to cover all the reductions that  
 2 were needed. So in those cases, MDE had to  
 3 give a complete strategy to EPA. So we needed  
 4 to fill in the gap and that's what we did.

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

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

19 There's still an opportunity to come  
 20 back. If anybody, any county, any  
 21 municipality didn't submit complete strategy,

Page 22	Page 24
<p>1 you can come back and do it your way. I mean,                  2 basically what you're faced with is two                  3 options. You can give us strategy to do it                  4 your way or you can do it our way and we fill                  5 in the gaps. So there is still opportunities                  6 to do that.</p> <p>7 So the bottom line is these are                  8 pound reductions. We have got 11 and a half                  9 million pound reduction from 2010. That's 22                  10 percent reduction load of the 2010 load.                  11 Phosphorus, just under 500,000 pounds, and 26                  12 million pounds of sediment, and you can see                  13 the percentage there as well.</p> <p>14 MR. KLINGELHOFETZ: Excuse me, where                  15 do these numbers come from? Is that from                  16 nutrient management or...?</p> <p>17 MR. ESKIN: The percent we can -- we                  18 obviously have to start from where are we in                  19 2010 and that is a combination of model data                  20 and monitoring data. So we do a progress run                  21 from the wastewater treatment plants, they</p>	<p>1 weren't able to do earlier. After June of                  2 2012, subsequent changes will be incorporated                  3 through an adaptive management process. And I                  4 can't tell you right now exactly how that will                  5 work but I do know that if you said you could                  6 guarantee me that these were the things that                  7 were put in the ground, and even though we                  8 said you've got to do that, you did this and                  9 we got the same amount of nutrient reduction,                  10 we're not going to turn it away.</p> <p>11 Tracking and reporting. We're                  12 hoping to work with local jurisdictions                  13 basically on a quarterly basis. We don't want                  14 to come to 2013 and then somebody has to say,                  15 oh, you didn't make sufficient progress, we're                  16 going to do this to you. We don't want that                  17 to happen. We want to keep the lines of                  18 communication open so everybody knows what to                  19 expect.</p> <p>20 And that's why we work with                  21 jurisdictions, the model is going to be</p>
Page 23	Page 25
<p>1 measure it at the end of the pipe. So we know                  2 exactly what they have done. So that is the                  3 point source numbers for 2010.</p> <p>4 For nonpoint source, things that                  5 don't come out of the pipe like the                  6 agricultural things, we used the bay model,                  7 and the implementation, EMPs that were                  8 reported to us, that is what goes into the                  9 model. And then the model combines the point                  10 and nonpoint source to say here's where we are                  11 in 2010.</p> <p>12 The other numbers are just basically                  13 a subtraction from what the bay model -- where                  14 the bay model is saying we need to get. 2010                  15 is telling us where we are now, our                  16 allocations were given to us by EPA. The                  17 difference is the pound reduction that we need                  18 to accomplish.</p> <p>19 Future steps. Okay. As I said,                  20 there is still an opportunity to refine your                  21 plans, to modify it, to fill out gaps that you</p>	<p>1 fixed -- well, I shouldn't say fixed,                  2 upgraded, refined, improved in 2017 and we                  3 would like to get better information, more                  4 accurate information on septic systems, better                  5 understanding of land use and so forth so that                  6 everybody has even more confidence in the                  7 model.</p> <p>8 The remaining schedule. On                  9 January 6th we submitted the state milestones                  10 to EPA. We brought them out January 25th to                  11 March 30th in the public comment period.                  12 March 30th to June 30th, basically that is                  13 when you can make the final refinements, and                  14 July 2nd it's all over and I can go on                  15 vacation. There you go.</p> <p>16 Now John Rhoderick will come up and                  17 tell you about the other half of the process.</p> <p>18 MR. RHODERICK: Good evening. I'm                  19 John Rhoderick. I am with the Maryland                  20 Department of Agriculture, and similar to                  21 Rich, I was put in a position of facilitating,</p>

Page 26

1 developing the agricultural portion of the  
2 strategy.  
3       So why is that being pulled out  
4 separately? I mean, if you think about it  
5 conceptually, this is a chair. There's a  
6 couple of components. One being wastewater  
7 load, one being the septic load, the other  
8 being the urban load from storm water, and  
9 then the ag load.  
10       So why do we pull ag a little  
11 differently? Well, it has to do with having  
12 been working with ag and implementing  
13 practices.  
14       For the most part, the other three  
15 components, when we talk about wastewater,  
16 urban and septic, that's something that  
17 happens, as you say, somewhat at the county  
18 level and the state level. When you talk  
19 about agriculture, you're talking about  
20 programs and funding and implementation that  
21 occurs in a little different setting.

Page 27

1       So we looked at that component and  
2 said because there is people that work  
3 specifically with the ag community, those are  
4 the people we need to get in the room because  
5 those are the people that are boots on the  
6 ground and they know and understand what is  
7 going on out there.  
8       So what we did was in parallel with  
9 the urban component, we set up ag work groups  
10 in each county and we had a series of  
11 meetings. And those work groups were not just  
12 ag people. There were county planners there,  
13 they had public works people, et cetera.  
14       But we really focused on bringing in  
15 people, personally inviting them there that  
16 were people that worked with the farm  
17 community and with landowners. Because those  
18 are the people that could tell us going  
19 forward what there was available out there to  
20 still do, as well as what they already worked  
21 on. So they knew from the farm community what

Page 28

1 the options were going forward that we thought  
2 we could get done. So with that in mind...  
3       First I want to start with just kind  
4 of a background slide, and I do this  
5 purposefully because there is a lot of  
6 information out there that gets ramped up in  
7 newspapers and I want to again remind  
8 everybody, we're in Maryland, and in Maryland  
9 agriculture is not the dominant load.  
10       This is an urban state. Maryland is  
11 a more urban state than agricultural, so when  
12 we look at it from that perspective, about 35  
13 percent of the load going into the bay from  
14 Maryland is agriculture.  
15       However, having said that, as you  
16 can see, depending on what watershed we're in,  
17 agriculture can be a very dominant player,  
18 especially on the Eastern Shore, Choptank and  
19 other regions.  
20       But here specifically in Baltimore  
21 County, you look at the Patapsco/Back River,

Page 29

1 ag's only three percent of the load. You look  
2 at some of the others like Patuxent, 18  
3 percent of the load. So again, it's very  
4 important regionally, when these plans are  
5 developed, to understand where your loads are  
6 coming from because that has a huge bearing on  
7 how we develop these plans.  
8       And that's why the local perspective  
9 is so important. Because, again, if I am on  
10 the Eastern Shore, we're taking on the  
11 majority of the plan versus, let's say, in  
12 Patapsco/Back River we're not the major  
13 player. We're not going to make a big  
14 difference in the plan.  
15       So what we do is we took and  
16 developed ag work groups in each counties and  
17 we used the soil conservation districts as the  
18 lead. And basically, as I say, these, you  
19 know, we had a very at that time scripted set  
20 of deliverables. At that time, we were told  
21 that our goal was by 2020, our governor

Page 30

1 said -- even though EPA asks for 2025, our  
 2 governor said I want this done by 2020. I  
 3 want everything implemented and I want to see  
 4 what it's going to take.  
 5       And that was a valuable exercise, as  
 6 you'll see a little later. But 2020 was our  
 7 target to get all the stuff implemented in the  
 8 ground to meet the goals.  
 9       Since that time, as I said, we have  
 10 had -- we extended what we did from those work  
 11 groups out to the 2025 plan. But we also  
 12 developed within that two-year milestones, as  
 13 Rich alluded to, because that is what we have  
 14 to have. So we had those as well.  
 15       So here's what we have. We have  
 16 these ag work groups. We actually had two  
 17 sets of meetings in each county so -- was it  
 18 48 meetings? We had two sets of goals. I'll  
 19 talk about that in a second because we got  
 20 started early before we had final numbers.  
 21       So we started with one set of

Page 31

1 numbers, and then when the new model came out,  
 2 we had at least a framework of how we were  
 3 going to do it and we used the new model  
 4 numbers to come up with our final plan.  
 5       And we had two sets of tools we used  
 6 at that time and we worked off of two  
 7 different strategies. The first time we did  
 8 this, again because we didn't have the final  
 9 numbers, we sat down and said, okay, the  
 10 caveat here is by 2020, given the existing  
 11 resources we have and the existing people in  
 12 place that work with the farms and landowners  
 13 and the existing programs as we know them,  
 14 whether it be the conservation reserve  
 15 program, EQUIP, whatever programs we work with  
 16 farmers, by 2020 how much more can we get  
 17 done, given existing resources.  
 18       The second time we came -- because  
 19 now we had new numbers and a new model and  
 20 clearly it said we had to do more, we came up  
 21 with what we call the aggressive strategy, a

Page 32

1 strategy that would not get accomplished with  
 2 existing resources and programs but it would  
 3 meet the goal. So that is what we were able  
 4 to do is look at it from two perspectives, and  
 5 that was very important.  
 6       Okay. The other thing is, as Rich  
 7 mentioned, is we're looking at, or on the  
 8 urban side, for counties to develop some kind  
 9 of tracking system to really get a handle on  
 10 what they have out there. From the ag  
 11 perspective, we were very fortunate. We have  
 12 conservation tracker, which has been in place  
 13 for a few years, and it's allowed us to get a  
 14 much better handle on what is already on the  
 15 ground and that helps us going forward to know  
 16 how much we have done.  
 17       And sitting with the right people in  
 18 the room, they can say, well, given that, I  
 19 see no additional opportunities for this kind  
 20 of management practice, or I see this other  
 21 management practice has got a lot of

Page 33

1 opportunity.  
 2       Okay. So this is from, some of you  
 3 that have been in the room and played with  
 4 this, this is from the first meeting, and as  
 5 Rich said, we didn't have much to go on but we  
 6 went with the simple spreadsheet. Not the  
 7 best idea but it's what we had at the time.  
 8 So what we did is we took on this slide -- I  
 9 know it's a little hard to read but you can  
 10 probably see it in your information. These  
 11 are the only BMPs that the model sees for  
 12 agriculture.  
 13       We do a lot more for farmers but in  
 14 the model world, which is what we're dealing  
 15 with for now, there is only certain BMPs the  
 16 model reads. So we started with these because  
 17 that is all we're going to get credit for in  
 18 the model.  
 19       So we went through and very simply  
 20 we had to model some information about what  
 21 the load reductions for nitrogen and

Page 34

1 phosphorus were for each. We could put in  
 2 information county by county about how much  
 3 they had done currently, and then what we did  
 4 is very simply go out in the next column and  
 5 say okay, if for barnyard runoff control,  
 6 which is actually recovery, if you've already  
 7 done 50 barns in this county, how many  
 8 additional opportunities are out there? How  
 9 many additional farms or barns can we go out  
 10 and put roof guttering on?  
 11 So it's a simple exercise of doing  
 12 that and we could calculate load reductions  
 13 based on that and we had our goal and so  
 14 basically we saw if we could meet it. And  
 15 that's how we did the first set of  
 16 24 meetings, county by county. And again,  
 17 that was based on existing resources and  
 18 existing programs.  
 19 So here is where we ended up. The  
 20 old bay model prior to August, the old bay  
 21 model said for agriculture in Maryland, the

Page 35

1 raw load, if you were doing nothing, if we  
 2 weren't preventing anything from going into  
 3 the bay, the raw load for agriculture would  
 4 be 22 million pounds for Maryland going into  
 5 the bay.  
 6 However, we have all these  
 7 conservation practices and by tracking,  
 8 conservation tracker, and they have been  
 9 submitted. So rather than 22 million pounds  
 10 going into the bay, the current load going  
 11 into the bay calculated in the model is 17.7.  
 12 So we're mitigating on average an  
 13 annual rate of about 9 million pounds of  
 14 potential pollutants that would be going into  
 15 the bay through the conservation practices  
 16 we've installed to date.  
 17 So this is the load we had and it  
 18 was, that's great, that's 17 million pounds.  
 19 But we need a plan to get you down to 13.7.  
 20 According to the old model, if we could get  
 21 the agricultural load down to that, we've met

Page 36

1 our obligation for agriculture. So we did  
 2 that.  
 3 As you can see, this is where we  
 4 ended up. We didn't quite get there. So  
 5 saying based on the existing resources we  
 6 have, which would be the number of people out  
 7 there working with the farm community, as well  
 8 as the programs we have, and given the fact  
 9 that we have to do this by 2020, this is how  
 10 far we could get.  
 11 And this was a valuable piece of  
 12 information because it allowed us to step back  
 13 and look at this and say, well, you know, it's  
 14 going to take more, you know, we can get some  
 15 significant reductions but it's not sufficient  
 16 to meet the model.  
 17 So then in August, as I mentioned,  
 18 we got the new bay model numbers and they were  
 19 more aggressive. You'll see those in a  
 20 minute. And they also changed significantly  
 21 because the new model -- one model to the next

Page 37

1 changes significantly.  
 2 At that time, as Rich mentioned, the  
 3 Department of Environment gave us a new tool  
 4 called MAST, and this was the agricultural  
 5 piece of it. We liked this a lot because  
 6 unlike that spreadsheet you saw, the  
 7 spreadsheet, as Rich said, gives you false  
 8 information because it's not as simple on a  
 9 model as putting additional BMPs. It doesn't  
 10 work like that in the model.  
 11 In a generic term, if I had an acre  
 12 of land out there and I said I am going to do  
 13 nutrient management on it, that's one BMP. So  
 14 in the model it says okay. Then I say, I am  
 15 going to do cover crops. The model doesn't  
 16 give me -- it doesn't add one load reduction  
 17 to the other. You get less and less. It's a  
 18 decreasing amount, so that is why a  
 19 spreadsheet doesn't work.  
 20 MS. HORSEY: It's a train.  
 21 MR. RHODERICK: A train. Thank you.

Page 38

1 It's called a treatment train and I know it's  
 2 getting into the weeds but that is why we like  
 3 this because for the first time it's giving us  
 4 information about how the model works.  
 5       So we can sit here and plug BMPs in  
 6 on, as Rich says, very specific land uses and  
 7 we could see, as we continued to put more and  
 8 more of the same -- BMPs on the same land, we  
 9 didn't get, you know, reductions didn't go  
 10 linear on the -- they kind of tapered off.  
 11 And that was good because that helped us see  
 12 exactly how the model works.  
 13       So we used this. We were the first  
 14 ones out of the gate using it. Not all the  
 15 things worked on it, so while this agriculture  
 16 piece worked, the animals and the no-transport  
 17 didn't, but we still went about our business  
 18 of looking at BMPs that were part of that, we  
 19 just couldn't get a lead from this on where we  
 20 were.  
 21       So here is where we ended up. Now,

Page 39

1 the interesting thing is I know the other  
 2 slide you didn't really take notes, so look at  
 3 the numbers. They're completely different.  
 4 This is the new model.  
 5       So instead of saying under the old  
 6 model where they said the raw load for  
 7 agriculture was 22 million pounds, this new  
 8 model says 28 million pounds. Well, that's a  
 9 big difference. Similarly, our progress. The  
 10 old model says you reduced that load down to  
 11 17.7 million pounds. New model says, whoops,  
 12 you're not -- you haven't gotten that far. So  
 13 this is why we ended up with new goals that  
 14 were much more aggressive.  
 15       Luckily, as you can see, this was  
 16 the goal we had to get to under the new model  
 17 and this is where we ended up. We ended up  
 18 just under. So we have a strategy in place in  
 19 the WIP that says for agriculture statewide we  
 20 can meet that.  
 21       And this is what it looks like for

Page 40

1 phosphorus. This was interesting for us as  
 2 well because, as you can see, nitrogen was  
 3 much more difficult to meet. Phosphorus, we  
 4 actual met it and exceeded it.  
 5       Now, having said that, we since have  
 6 learned there is -- and you'll hear more about  
 7 it in the points, but there is an issue with  
 8 the model for phosphorus so we're not jumping  
 9 up and down about this. This is great, but we  
 10 think there is a problem in the model and we  
 11 wouldn't want to suggest that we're way under  
 12 at this point.  
 13       So this is what it looks like, as  
 14 Rich said, how we will be presenting it to  
 15 EPA, we did present to EPA. They want to see  
 16 it by basin. This is how it looks. So by  
 17 basin, you know, here is where we were in  
 18 2009 -- I apologize, Rich is using 2010, an  
 19 update. But in 2009, here is where we were,  
 20 and the red is where we tried to get to in our  
 21 plans and the green is where we actually ended

Page 41

1 up.  
 2       As you can see, it varies from basin  
 3 to basin. Eastern Shore is much more  
 4 difficult to get there. Even with the  
 5 aggressive strategy, we're just a little over.  
 6       Potomac River, we're well under and  
 7 you can see these are the two we want to focus  
 8 on because this is where the major load is,  
 9 according to the model. It's not the Western  
 10 Shore, Susquehanna and Patuxent, but major  
 11 loads are here.  
 12       But overall, that equals the state  
 13 plan that meets the goal. And then for  
 14 phosphorus, the interesting part is look at  
 15 the Eastern Shore. We had a tough time making  
 16 it for nitrogen but we got well under for  
 17 phosphorus.  
 18       So again, this is what the model --  
 19 at least the information from the model and  
 20 that's why I think we're a little leery  
 21 because this phosphorus number, because as

Page 42

1 most of you who read the paper, we believe  
 2 there's a lot more phosphorus on the shore.  
 3 So to suggest suddenly that, you know, it's  
 4 real easy to meet it doesn't seem to make  
 5 logical sense.  
 6 This is the statewide, this is  
 7 broken down, as you said, for 2013 where our  
 8 goals are and will be by then, 2017 and 2025.  
 9 Some of the, you know, and I apologize, we  
 10 don't have enough information up, it's already  
 11 too busy. But if you look at stuff like  
 12 forest buffers, I mean, people will look at  
 13 this number and say this isn't -- from a  
 14 statewide perspective, this isn't a lot of new  
 15 acres.  
 16 You have to remember what is missing  
 17 from here is where we've come from. We've  
 18 done over 26,000 acres of forest buffers to  
 19 date. So we have done some of the easy acres.  
 20 It's much tougher to get these additional BMPs  
 21 for stuff like forest buffers because the

Page 43

1 opportunities are not there.  
 2 So you have to understand, on some  
 3 of these, where we are to date versus what the  
 4 chart's saying.  
 5 MR. AARON: Quick question. There  
 6 are a couple of places where the 2013  
 7 milestones are higher than the 2017 goal and  
 8 then go -- like at the very top line, 5,280  
 9 acres to 3,168 to 5,280. I assume that's just  
 10 a --  
 11 MR. RHODERICK: Yes, that's a typo.  
 12 MR. AARON: In all cases it should  
 13 increase?  
 14 MR. RHODERICK: Yes, they should be  
 15 increasing and we have had a couple of those  
 16 pop up before and I apologize.  
 17 MR. AARON: Just making sure I  
 18 understood how it's supposed to work.  
 19 MR. RHODERICK: They should all be  
 20 ramping up. Okay. And this is obviously a  
 21 second page. And as you can see, it takes two

Page 44

1 pages to show all these BMPs because for  
 2 agriculture, we're looking at a suite of  
 3 practices and obviously, again, this is not  
 4 everything we do that has work quality  
 5 benefits for agriculture, but this is some of  
 6 what the model will read. So we're limited in  
 7 that capacity.  
 8 Okay. This slide we liked because  
 9 this, to us, I believe, is the value of those  
 10 local meetings. When I talked about we had  
 11 our first set of meetings, that was over here.  
 12 For the majority of it, these were probably  
 13 the major practices we saw up on the screen.  
 14 But if you look at the chart next to  
 15 it, look how it shifts. Look at my  
 16 precision/decision ag. When we talked about  
 17 an aggressive strategy versus existing  
 18 resources, it changes the dynamics of where  
 19 we're going to get these reductions and how  
 20 we're going to get these reductions.  
 21 So for us, it targets back to us on

Page 45

1 how we need to focus our programs and our  
 2 resources if we're going to meet the goals.  
 3 Okay. WIP Modeling Summary.  
 4 Basically where we ended up, as I said, is all  
 5 23 counties did submit an ag strategy. An ag  
 6 strategy for all 23 counties, and as of 12  
 7 o'clock tomorrow they will be up and available  
 8 at the MDA Web site. If you go under  
 9 conservation, you can view any county, there  
 10 is a map. You can pop on the map and see any  
 11 county and see their plan just like I  
 12 displayed it there for 2013, 2017, 2025 plan.  
 13 Okay. As you can see, we haven't  
 14 done that other approach, which was great. We  
 15 did submit them to the bay program. As you  
 16 see, it took about three times to submit them  
 17 because -- a number of things: first time  
 18 submitting information like this. Second one  
 19 was -- remember, they just came out with this  
 20 model in August and they were under a deadline  
 21 to have it out so that we could use it and

Page 46

1 submit plans by the new year.  
 2 The model never really had proper  
 3 QA/QC so there were some issues that we had to  
 4 go through with the bay program in order to  
 5 get the information in and through the model.  
 6 And with that in mind, obviously we  
 7 believe there's some further confirmation that  
 8 needs to be done about some of the ag  
 9 information and how the model is handling it.  
 10 Validation. And this goes to my  
 11 guys in the audience, Bill and who else is out  
 12 there? Jim is out there and Eric. When we  
 13 were using MAST, as I mentioned, we were the  
 14 guinea pigs. In some cases, as we used it,  
 15 there were some things in the MAST, as we put  
 16 BMPs in there, we could sense something wasn't  
 17 right. It's mimicked in the model and we  
 18 weren't sure. There were some issues. And  
 19 since then, we've had to adjust what you were  
 20 seeing in MAST. So -- and that's been done.  
 21 Things we're looking at and also

Page 47

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.  
 7 So the first time we would look at  
 8 it and say, well, wait a minute -- and I know  
 9 this happened, I think it was Allegany County  
 10 and I think it happened in Harford too, their  
 11 dairy herd or their dairy manure, and there is  
 12 no cows there in the county, but yet in the  
 13 model it has got a slurry, it's got a load for  
 14 manure for dairy.  
 15 So there was things like that that  
 16 popped up, and that is fine. Those are the  
 17 quirks that we can see and we understand now.  
 18 We will deal with it.  
 19 And this is just again showing you  
 20 that some counties, as you say, it was not --  
 21 MAST, as I just referred to, was not reading

Page 48

1 correctly. You know, you look at some areas  
 2 like this where some of the crop, at least, it  
 3 was off by 177 percent. That is pretty  
 4 significant but that's fine. It was a plan to  
 5 help us get there. But for some of the guys  
 6 to reassure them we're aware of some of those  
 7 issues that came up.  
 8 And again with phosphorus, there was  
 9 a couple of issues with phosphorus for certain  
 10 counties.  
 11 Okay. Next steps. As I mentioned,  
 12 we are not alone as we use this tool to get a  
 13 firsthand glimpse at the model. The other  
 14 states, again, same thing. So what we have is  
 15 there has been some questions and so EPA set  
 16 up work groups. There is an ag work group,  
 17 there's an urban work group. Urban work group  
 18 has a list of probably 23 things they want to  
 19 look at. Ag, we have a list of about 40.  
 20 And these things, what they have  
 21 done is they have set up some subcommittees

Page 49

1 already, and I apologize, that should be 2012  
 2 not '13. But for this year, these three  
 3 subcommittees are going to look at specific  
 4 things about the model and some of our BMPs.  
 5 And so the first work group that's  
 6 been set up is the nutrient management work  
 7 group and they're looking at a couple of  
 8 these. I know like what was near and dear to  
 9 us was this one that says nursery BMPs, for  
 10 Bill and a couple of other people. When we  
 11 looked at the model, and we do a lot of things  
 12 with nurseries to mitigate their nutrients,  
 13 but according to the model, there's only one  
 14 BMP we could use and that was water capture  
 15 and reuse.  
 16 And we kept saying there's five  
 17 other or six other things related to nutrient  
 18 management and nurseries, according to the  
 19 model. So that is one thing that we're  
 20 looking at.  
 21 The other one's down here. When we

Page 50	Page 52
<p>1 brought out the paper for cover crops and we                  2 use, you know, forage radish, you know, we had                  3 a lot of cover crops this year was forage                  4 radish. We don't get credit for model numbers                  5 at this time. So again, we know it has work                  6 quality benefits. We've got to update the                  7 model a little.</p> <p>8 Conservation tillage, the same                  9 thing. There's a couple of things up here                  10 that we want to make sure are working                  11 correctly so we get our full credit.</p> <p>12 Now, jumping, as Rich did, to this                  13 accounting for growth. This is a new                  14 component of EPA's requirement because, as                  15 Rich said, for every pound of new load that                  16 would go in the bay, it's got to be offset.                  17 We were basically capped across -- every                  18 sector is capped. So if you're going to put                  19 another pound in the bay, somebody's got to do                  20 something above and beyond what they're                  21 required to do under the TMDL.</p>	<p>1 our Web site. If you're not familiar with it,                  2 it's mdnutrienttrading.org and you go on, we                  3 had 160 accounts opened. We did about 80 farm                  4 assessments last year. We'll probably do a                  5 little over 200 this year to -- for looking                  6 for offset potentials and we've hired some                  7 additional staff to help with that.</p> <p>8 A few counties recognized this --                  9 I'm talking about the planning, the planners                  10 and the counties and county commissioners.                  11 I'll use Howard County as an example, it's                  12 very close, where they actually went to the                  13 soil conservation district and they said we                  14 understand what's coming here but as a                  15 developer comes in our planning office, we're                  16 going to tell him he has got to find offsets                  17 for his load. So how do we do it?</p> <p>18 So they've actually contracted with                  19 the district to go out and work with the farm                  20 community and start looking for some of these                  21 offsets. So that as a developer comes in,</p>
Page 51	Page 53
<p>1 Not only do you have to meet the                  2 load reduction, but somebody's got to do                  3 something above and beyond if you are going to                  4 add some more load.</p> <p>5 So with that in mind, we do have a                  6 training program. It's been up and running                  7 for a while. The ag portion of it, you know,                  8 is a component that we're looking at as the                  9 possibility to provide those additional load                  10 reductions above and beyond the TMDL for when                  11 new development comes in or when new                  12 discharges want to discharge and need a                  13 permit. We have set up a process to work with                  14 farmers to identify if they have offset                  15 potentials and we can do verification,                  16 certification of monitoring.</p> <p>17 And again, this is voluntary on the                  18 farm community. Let me assure you, this is                  19 not we're coming out looking for these.                  20 They're only if you guys want to participate.                  21 Last year, we had over 5,000 hits on</p>	<p>1 they would have a one-stop shop to say, okay,                  2 these are the offsets you need, and go to the                  3 conservation district, they identify some                  4 farmers that you may want to talk to that may                  5 provide this for you, and you will pay for it,                  6 by the way. And again, we know we have some                  7 grants that we'll try to help out with that as                  8 well.</p> <p>9 I am just going to end up with this,                  10 which brings us back to where Rich was.                  11 Again, for agriculture, as you saw, we meet                  12 the statewide targets. We are well under for                  13 phosphorus but I am not holding on to that,                  14 you know. I am standing on that one.</p> <p>15 Here's what it looks like statewide.                  16 I mean, right here, 51 million pounds in 2009,                  17 according to the model, is what we were                  18 dumping in the bay, all sectors in Maryland.                  19 We had to come up with a plan to get us down                  20 to 41.7. What we came up with was a statewide                  21 plan through all sectors that got us there.</p>

Page 54

1 I'm sorry, the other way around, 41.1 from  
 2 41.010.  
 3 For ag nitrogen, in '09 we were  
 4 dumping 19.7 million pounds in. We needed a  
 5 plan to get down to 15.2 and our plan takes us  
 6 to 15.1. And you can see for both phosphorus  
 7 and nitrogen and you can see all the other  
 8 sectors as well.  
 9 So at that point, Rich and I are  
 10 going to entertain questions, and I think  
 11 there's a protocol.  
 12 MR. AARON: My name's Mike Aaron.  
 13 I've got a couple. So the statewide WIP is  
 14 done on the basin level, the county WIPs are  
 15 all done on county levels. You addressed that  
 16 a little bit. Could you just address it a  
 17 little more.  
 18 MR. RHODERICK: The bay model was  
 19 basically started in Hillhurst[phonetic] for a  
 20 64,000-mile-square area. It does very well at  
 21 large geographic areas. When we started using

Page 55

1 it and broke it down to the county level, it  
 2 was not working correctly.  
 3 And so EPA saw that as well so  
 4 basically said we want you to lead -- and we  
 5 agreed -- that it works about -- the farthest  
 6 you can take the model down to is basin level  
 7 and so that is why we submitted data at the  
 8 basin level. But beyond holding, as you say,  
 9 especially for the districts and agriculture,  
 10 we're holding, you know, our limitations are  
 11 based on the county level, our observations  
 12 were at the county level.  
 13 MR. THARPE: My name is Bill Tharpe,  
 14 County Soil Conservation District. John, my  
 15 question is your statement about how the MAST  
 16 program does not account directly when you  
 17 move away different practices. We do  
 18 practices that, you know, that really overlap  
 19 one another. So are we really getting true  
 20 credit for all the practices that we're doing?  
 21 The other part of that question is,

Page 56

1 in the bay model, have some of the items that  
 2 generated the proper reduction in credit been  
 3 adjusted, specifically one that Farm Bureau  
 4 brought up was, you know, yield potential out  
 5 of using old data which, you know, should be  
 6 higher which actually relates to more nutrient  
 7 uptake. So that -- those -- are we getting  
 8 true reduction credits that ag should be  
 9 getting?  
 10 MR. ESKIN: On the first one, when  
 11 we see two BMPs, let's say you had two BMPs,  
 12 they each had 20 percent efficiency, used  
 13 independently. Well, you put that first BMP  
 14 in and it's going to get that whole 20 percent  
 15 but now it's already taken away all of the  
 16 easily remediated nutrients, if you will.  
 17 So you add on the second one, you  
 18 had that first one there and it took care of  
 19 part of that per-acre load, the second one is  
 20 going to be somewhat less efficient. The  
 21 third one is going to be somewhat less

Page 57

1 efficient than if used independently, and that  
 2 sequencing interaction between the BMPs is  
 3 part of what is in the model and that's why  
 4 spreadsheets don't work too well. But this  
 5 MAST that simulates the model comes a lot  
 6 closer to capturing the integrate efficiency,  
 7 if you will, of that treatment train.  
 8 MR. THARPE: But they're all getting  
 9 credit, though, right?  
 10 MR. ESKIN: They're all getting  
 11 credit, but as you put more and more on, and  
 12 in fact I think that you learned something  
 13 about either one makes a difference, so if you  
 14 do nutrient management before you do precision  
 15 agriculture, you got very little additional.  
 16 But if you reversed it, you did somewhat  
 17 better.  
 18 MR. RHODERICK: It's like Rich  
 19 explained it. The first BMP is 20 percent, it  
 20 means you will only get 80 percent remaining.  
 21 Now you put 20 percent on 80 percent

Page 58

1 remaining, so it decreases the value.  
2 The second point about, and we did  
3 gloss over this and I apologize. As you saw,  
4 there is some issues up there and we're trying  
5 to prioritize them. We are going to hold the  
6 model where it is at this point, but we are  
7 working the next three years through this  
8 whole list of issues. They in 2015 will be  
9 updating the model based on all these issues.  
10 MS. HORSEY: '17.  
11 MR. RHODERICK: Well, it won't come  
12 out to '17 but they're going to do it in '15  
13 but '17 is when you'll see the corrections.  
14 So we all know we have work to do so nobody is  
15 backing off. We may be further along, we may  
16 find, by '17 based on some of these issues.  
17 MR. ESKIN: And there are some  
18 things that can happen now. If there's  
19 practices that you know are in the ground that  
20 weren't accounted for, if they were put in the  
21 ground after January 2006, that's not a model

Page 59

1 problem, that is a data problem, that we  
2 didn't give the model accurate information.  
3 So that could be fixed.  
4 But the kinds of changes where you  
5 have to recalibrate the model, like changes in  
6 land use, that is going to have to wait. And  
7 the reason we're closing it off in 2015 is  
8 because all of these problems, and as you  
9 start using it, you find more and more errors,  
10 we don't have time to fix them so we're going  
11 to allow that two years for the communication,  
12 the dialogue to take place. We can start  
13 using it, as the problems pop up, we can fix  
14 them.  
15 And in fact, MAST has pointed out  
16 many problems with the model, most of which or  
17 many of which were in fact addressed. So  
18 where it didn't require recalibration, EPA  
19 said, oh, yes, you're right. That is a  
20 problem, they went back and fixed it. They  
21 didn't have any better -- MAST, I think, was a

Page 60

1 better model than it would have been  
2 otherwise.  
3 MS. FINNEY: Vanessa Finney with the  
4 Maryland Nursery and Landscape Association. I  
5 just want to ask John, how does -- what is the  
6 plan to address the lack of validation of the  
7 nurseries and how do we respond to the plan,  
8 knowing that there's nonvalidated for nursery  
9 or lack of recognition?  
10 MR. RHODERICK: I apologize.  
11 They're on -- I apologize. We had them on a  
12 slide but -- they're on that list of 40, as I  
13 mentioned, for the ag work group, that nursery  
14 you saw will be dealt with this year. There  
15 should be a suite of BMPs such as nutrient  
16 management, cover crop, et cetera, that should  
17 be applied to the land use for nurseries as  
18 well.  
19 MS. FINNEY: Well, how do you  
20 accomplish finding that out? I know there was  
21 a survey but [inaudible].

Page 61

1 COURT REPORTER: I'm sorry, can you  
2 speak up, I can't hear you.  
3 MS. FINNEY: I'm asking about how  
4 the nurseries are going to be able to record  
5 the BMP, they go on record with the BMPs that  
6 they are engaged in. I know MAST did a survey  
7 but the [inaudible] from that survey so is  
8 anything going to become special and reach out  
9 to nursery, or why is -- as a representative  
10 of the industry to do something, myself,  
11 acting as -- be more active in getting back to  
12 you.  
13 MR. RHODERICK: No, both. I  
14 actually talked to the state and so we need to  
15 sit down at every possible opportunity to the  
16 nurser people and get them to understand about  
17 this, you know, about the fact that they have  
18 a load and an obligation in the model they may  
19 not be aware of and, you know, we may need to  
20 provide information, you know.  
21 The easiest thing is to go in and

Page 62

1 visit with Bill or with Jim or anybody in the  
 2 districts, in the county they're in, to  
 3 document what they have done. But as I said,  
 4 your limitation right now is 1 BMP load.  
 5 MS. FINNEY: Will that change? Will  
 6 they open the doors and let [inaudible] have  
 7 more to say?  
 8 MR. RHODERICK: I hope. I didn't  
 9 see the -- when I see that on the schedule.  
 10 That's an immediate concern this year.  
 11 MR. ESKIN: Just a little bit more  
 12 broadly, there is -- EPA recognizes that there  
 13 are a lot of BMPs being done that aren't  
 14 credited in the model and there's a whole  
 15 process through these work groups at the bay  
 16 program.  
 17 So basically you submit the data  
 18 that says, you know, here is what you see in  
 19 these four pages published in the peer-review  
 20 literature, here is the numbers that they  
 21 provide for this BMP, and we think that you

Page 63

1 need to look at this and use those numbers or  
 2 some combination of those numbers to start  
 3 validating these BMPs and providing credit.  
 4 And then it gets you to the model,  
 5 it gets us to whatever table they use and it  
 6 will show us that per acre load or per roll,  
 7 whatever it is, per unit load. So that's  
 8 happening across the board, both for urban and  
 9 agricultural Best Management Practices.  
 10 MS. FINNEY: But it's too late to  
 11 comment in WIP II?  
 12 MR. ESKIN: You can comment on it,  
 13 certainly. I mean, in fact, that will be an  
 14 excellent idea that you should say we're doing  
 15 all these BMPs and they're not being credited  
 16 to the model. We think it should be made a  
 17 priority. We would estimate that would  
 18 account for x percent of the load by pounds,  
 19 whatever estimates you want to use and make  
 20 your case that, you know, this needs to be  
 21 addressed and it's absolutely best to be on

Page 64

1 record with that.  
 2 MS. FINNEY: Thank you.  
 3 MR. LIPPINCOTT: Wally Lippincott.  
 4 One of the important things I thought about  
 5 first grades put together like being in those  
 6 different categories of wastewater treatment,  
 7 and urban and ag each having their own goals  
 8 separated because we know the national policy  
 9 has, you know, kind of indicated other  
 10 problems, that's why we have to be addressed  
 11 in the TMDL.  
 12 But a lot of the folks I work with  
 13 have concerns that the offset concept  
 14 threatens the viability or continuity or  
 15 continuation of agriculture in the state.  
 16 Theoretically, you know, more and more  
 17 practices, more and more land, good, land  
 18 going to the forest and less left for the  
 19 [inaudible]. What is your reaction and how  
 20 should -- can I help address these people's  
 21 concerns?

Page 65

1 MR. RHODERICK: We really didn't get  
 2 into the whole strategy. I mean, as I  
 3 mentioned, I was focused on ag as an offset  
 4 option, but if a developer came in as a  
 5 component, the county may, you know, say to  
 6 him, well, one of the options is we want to  
 7 get some of these failing septic tanks  
 8 upgraded. If you're willing to pay for those,  
 9 in that set of septics, you'll be reducing the  
 10 load offsets.  
 11 So it's not on the back of  
 12 agriculture. I didn't want to leave that  
 13 impression. Some other options is the county  
 14 may chose alternatively to take one of the  
 15 minor wastewater treatment plants and hook it  
 16 up to a major, so instead of running, as Rich  
 17 said, 18 milligrams per liter, it's now  
 18 running 4 milligrams per liter.  
 19 Therefore, they have created a  
 20 mechanism for additional developers to hook  
 21 up, get that power capped and using that

Page 66

1 strategy.

2 So yes, we are focused on, as you

3 say, first meeting our commitment on the TMDL.

4 We want to make sure that we've got enough

5 practices out there to meet our commitment and

6 we [inaudible].

7 SPEAKER: Richard, how is this going

8 to be regulated? For instance, is it -- the

9 county going to regulate it or is MDE going to

10 regulate? Because what I am seeing is, you

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

12 there is a lot of development and stuff, it

13 could take away a lot of best managements on a

14 farm due to flooding and whatnot.

15 MR. ESKIN: I would not frame it so

16 much as being regulated as being tracked and

17 reported. So, for example, some things come

18 under permits, so the reporting is formal,

19 like wastewater treatment plants, industrial

20 discharges give us every month what's called a

21 discharge monitoring report where they are

Page 67

1 required legally to report what is happening.

2 The storm water controls will happen

3 under the storm water permits for the most

4 part.

5 There is another permit called

6 municipal separate storm sewer system permit,

7 or MS4, and jurisdiction needs to submit an

8 annual report as part of the permit protocols

9 reporting is required.

10 For the septic systems, a lot of the

11 septic upgrades being made with BRF, Bay

12 Restoration Fund money, and so that is being

13 tracked too because it's being paid for by the

14 state. And then John is using conservation

15 tracker, going around the state to keep track

16 of what the farmers are putting on the land.

17 So there is a little bit, depending

18 on the particular sector, as to how it's being

19 tracked. But as to where there is a permit,

20 it will be regulated, which means inspected

21 and enforced and where there is not a permit,

Page 68

1 it's being tracked and verified.

2 MS. POWERS: Jen Powers from

3 Gunpowder Valley Conservancy. Rich, the MDE

4 document that came out in June of 2011, it had

5 stats on load allocations, did EPA endorse

6 that? Is this something we can look to

7 with --

8 MR. ESKIN: You mean the storm water

9 guidance?

10 MS. POWERS: Maybe. It has forest

11 and different BMPs and different ratios --

12 MR. ESKIN: I don't --

13 MS. POWERS: -- efficiencies. It's

14 an efficiencies report that came out in June.

15 MDE.

16 MR. ESKIN: For storm water

17 practices? I think it was. And they didn't

18 endorse it or not. Basically, we are working

19 closely with them on what is in the permit.

20 There's two separate processes going

21 on. One is writing the permits, okay? EPA

Page 69

1 Region 3 Water Protection Division in

2 Philadelphia is working with our water

3 management division on that.

4 The other is the tracking for the

5 bay WIP, the TMDL, that is happening out of

6 Annapolis. And with Annapolis, we have agreed

7 on the efficiencies, for the practices that

8 will be tracked by the model. So basically,

9 we're reporting practices, EPA is saying what

10 the efficiencies are, okay?

11 And the guidance is just general

12 guidance for the purpose of the permits

13 helping because where that practice happens

14 affects what the efficiency is. So those are

15 general efficiencies. It's what you call

16 relative effectiveness factors. The farther

17 you are from the water, the less effective the

18 practice is going to be. And there's several

19 factors as well in that.

20 MR. MCGINNIS: Wayne McGinnis,

21 farmer. Some courts have ruled that the very

Page 70

1 broad-based setback requirements of all  
 2 terrain would be considered a taking and also  
 3 would be a zoning issue and therefore invalid.  
 4 What do you have to say about that?  
 5 MR. ESKIN: John, I am not aware of  
 6 that issue or any court decision. Are you  
 7 saying the courts have decided or that --  
 8 MR. MCGINNIS: Delaware Supreme  
 9 Court recently made the decision, and there  
 10 was another case in the Midwest a year or two  
 11 ago on a similar matter but it was a business  
 12 venture.  
 13 MR. RHODERICK: Are you talking  
 14 about the proposed nutrient management breaks  
 15 that require a 35-foot setback?  
 16 MR. MCGINNIS: Yes.  
 17 MR. RHODERICK: That is not part of  
 18 this. Okay? I mean, this whole plan has been  
 19 put together using standard practices for  
 20 agriculture. It doesn't require the nutrient  
 21 management 35-foot setback. This is based on

Page 71

1 all voluntary proper practices.  
 2 MS. MCGINNIS: At the last meeting  
 3 there was a woman who spoke about the -- from  
 4 the EPA -- I'm Harriet McGinnis.  
 5 At the last meeting a woman spoke  
 6 that the EPA had entered a nitrogen/lead input  
 7 into the state system and how they were  
 8 generally aware the air is responsible for 40  
 9 percent of the nitrogen, and I don't see any  
 10 input from the EPA on the nitrogen from the  
 11 EPA as the woman had spoken in the last  
 12 meeting.  
 13 MR. ESKIN: What EPA has done -- the  
 14 actual -- to simplify things for the states,  
 15 the number that we are basically using,  
 16 although it's publicly available, the total  
 17 number is -- I think it's something like 217  
 18 when you include air, but EPA is not  
 19 allocating the air to the individual states  
 20 because that is happening nationally.  
 21 So basically just took the whole air

Page 72

1 issue off the top and EPA is responsible for  
 2 getting those reductions out of the Clean Air  
 3 Act regulations that they're moving. I think  
 4 it's called cross-state something now, CSAR.  
 5 So they are responsible for that portion.  
 6 Anything that we can do over and  
 7 above what is required federally, we can get  
 8 credit for but we're not ignoring air. In  
 9 fact, the director of air and radiation  
 10 management at MDE is meeting regularly with  
 11 the modelers in Annapolis at EPA, talking  
 12 about how we can get a better angle on the air  
 13 issue, how we get credited for what we're  
 14 doing here in Maryland, say, with the Healthy  
 15 Air Act and how, for example, we adopt clean  
 16 cars or what's called catalytic 2, we should  
 17 get additional credit for that.  
 18 Anything that is not included in the  
 19 broad national air regulations that we do over  
 20 and above that, we want to get credit for. We  
 21 are not ignoring that issue.

Page 73

1 MS. MCGINNIS: Do you perceive that  
 2 it will go into our program, our state  
 3 program?  
 4 MR. ESKIN: Yes, I think it will.  
 5 In fact, I know that EPA right now is talking  
 6 about some new fuel standards that require a  
 7 lower sulfur in gasoline. I mean, if it's  
 8 sulfur, well, we're not talking about sulfur.  
 9 But what happens is the sulfur in the gasoline  
 10 poisons the catalyst to some extent, it's  
 11 still operational but they're not as efficient  
 12 as they could be. And what those -- the  
 13 catalyst and the catalytic converters do is  
 14 actually remove the nitrogen that occurs at  
 15 high temperature in your engine.  
 16 So if these catalytic converters are  
 17 more efficient because there is less sulfur in  
 18 the gasoline, we'll actually get a very good  
 19 reduction in the atmospheric generation that  
 20 we can take credit for. We're looking at all  
 21 of that.

Page 74

1 MS. MCGINNIS: What about the air  
 2 over the bay where there is no cars?  
 3 MR. ESKIN: Well, the air is very  
 4 well-mixed. I mean, you know, the winds are  
 5 coming from, you know, west. In fact, part of  
 6 our problem -- something like 70 percent of  
 7 the nitrogen oxides that are coming into  
 8 Maryland are coming across the state border.  
 9 We've basically done all that we can  
 10 on air, very near, because we have got some of  
 11 the most stringent requirements on power  
 12 plants anywhere in the nation. So we've  
 13 done -- everything else is coming from outside  
 14 and that is why some of the states are even  
 15 suing EPA to make other states reduce their  
 16 load. Even though they don't have a problem,  
 17 they're shifting their loads over here. So  
 18 we're working very hard on that area. We're  
 19 working with EPA as well as working with  
 20 Maryland to address the air issues.  
 21 MR. BARNABA: My name's Kevin

Page 75

1 Barnaba. I'm the environmental health  
 2 director for Harford County Health Department.  
 3 I have a question related to septic systems.  
 4 We've talked about how this is going  
 5 to be regulated and you had mentioned more  
 6 track when talking about septic systems.  
 7 Well, for Harford County, the amount of money  
 8 that we've received from the Bay Restoration  
 9 Fund for septic system upgrades probably  
 10 wouldn't even resolve about one percent of  
 11 what we have to do as far as nitrogen loads  
 12 for our septic systems. So my question is is  
 13 if the other 99 plus percent can't be met,  
 14 what happens?  
 15 MR. ESKIN: Well, there is a couple  
 16 of things that you can do. This is the kind  
 17 of thing that you should consider in your  
 18 plan. So let's say you have some failing  
 19 septic systems, you maybe want to hook them up  
 20 to a wastewater treatment plant. That's not  
 21 cheap either but you could do that.

Page 76

1 Another option would be to, let's  
 2 say you have a minor wastewater treatment  
 3 plant and you upgrade that plant instead of  
 4 doing the septic systems. That might be  
 5 actually a, certainly easier to handle and  
 6 deal with and may be more cost effective  
 7 depending on whether -- maybe you could get  
 8 rural development funds from USDA, or there is  
 9 a state revolving loan fund, a certain percent  
 10 for that now needs to be in grants and is  
 11 available. So there is a number of funding  
 12 options depending on what you choose.  
 13 In doing the allocations, we try  
 14 very hard not to actually target or be  
 15 perceived as targeting any particular set.  
 16 Unfortunately, this all started out, somebody  
 17 came in to say we're going to get agriculture,  
 18 we're going to get storm water, and we  
 19 disagree entirely with that. We're not out to  
 20 get anybody. We wanted our allocation to be  
 21 as equitable and objective as possible.

Page 77

1 Basically, we want the people who  
 2 will pay the amount of reduction you need to  
 3 accomplish is proportional to the amount of  
 4 pollution you create. That may not be the  
 5 most cost-effective way.  
 6 But that's an equitable way and we  
 7 were hoping that the cost effectiveness would  
 8 come around subsequently when you say, okay,  
 9 that is our allocation to this sector, we'll  
 10 pay somebody else to do it because they can do  
 11 it a lot cheaper than we can do it ourselves,  
 12 and that's how you get to the cost  
 13 effectiveness.  
 14 So, look, don't feel that although  
 15 you have an allocation for septic systems,  
 16 that it's written in concrete and it can't be  
 17 modified. Look for alternative ways to open  
 18 it. Community systems that do better than  
 19 individual systems might be an option.  
 20 A developer comes in and let's say  
 21 there's a failing septic system not too far

Page 78	Page 80
<p>1 away, maybe you could get that developer, as                  2 part of his offsets, to build a community                  3 system that could encompass both his                  4 development and the adjacent development                  5 because if you're already putting in a system,                  6 it's pretty cost effective and so instead of                  7 upgrading those septic systems, you can                  8 connect it to a local community system that                  9 would be more cost effective than either                  10 connecting them to a bigger wastewater                  11 treatment plant or upgrading the individual                  12 septics.</p> <p>13 So think out of the box. Think                  14 about ways to leverage the private sector to                  15 get them to help you because when those                  16 accounting-for-growth policies come out,                  17 they're going have to find those offsets.</p> <p>18 MR. MILLER: My name's Gary Miller                  19 and I'm not a fan of the state government and                  20 I'm certainly not a fan of the EPA. And                  21 you're saying the EPA does not target</p>	<p>1 to make that TMDL more stringent.</p> <p>2 We may find that the practices                  3 aren't as efficient as we thought they were                  4 and therefore we need to do a little bit more,                  5 but we're not going to make them more                  6 stringent per se.</p> <p>7 Now, in terms of, say, agriculture                  8 feeling targeted, even before this bay TMDL,                  9 EPA came around to maybe just to Baltimore                  10 City and Baltimore County, WSSC, that's the                  11 Washington Suburban Sanitary Commission that                  12 handles the water and sewer for all the area                  13 around D.C., and they have to upgrade all of                  14 their -- well, they have to upgrade their                  15 major infrastructure, the pipes, we get storm                  16 overflows and stuff like that.</p> <p>17 Well, those communities each has to                  18 ante up over a billion dollars to fix that                  19 infrastructure. So the urban folks are                  20 getting hit pretty hard too, and I know, I see                  21 my bill going up year by year.</p>
Page 79	Page 81
<p>1 agriculture, but when it comes down to your                  2 farm, your family, and your livelihood that is                  3 affected, it certainly comes across that way.</p> <p>4 There is very few folks in the                  5 agricultural community so that is where we get                  6 this -- that we feel as though we are                  7 targeted.</p> <p>8 Your model changes -- if our goal --                  9 and if the goals you set are met by, say,                  10 2020, will the EPA go away or will it just                  11 make it more stringent? I bet it won't go                  12 away.</p> <p>13 MR. ESKIN: They won't make it more                  14 stringent either. This TMDL which -- the                  15 number for the whole bay actually has been                  16 very stable as they have run the various                  17 predictions and models. Pretty close to the                  18 same number, and that is sort of the fixed                  19 amount. The bay can take that amount and                  20 still be where we need it to be. So as long                  21 as we're getting that amount, we're not going</p>	<p>1 This is an impact -- Clean Water Act                  2 was revised in 1972 and really we have not                  3 paid attention in many ways. It's not just                  4 agriculture, it's urban areas, it's the                  5 agencies, it's EPA itself who got sued left                  6 and right for not doing what they were                  7 supposed to do. And now basically it's come                  8 to the point where people said you need to                  9 follow the law that was passed and we're                  10 having to make up for 35 years of ignoring                  11 that law. And it's not coming at a good time.</p> <p>12 MR. MILLER: Right. When the EPA                  13 gets sued, it doesn't come out of your pocket.                  14 When I get sued, when my neighbor gets sued,                  15 it comes out of his pocket.</p> <p>16 MR. ESKIN: Well, actually, it does.                  17 That billion dollars, I mean, I pay some of                  18 that so it does come out of my pocket.</p> <p>19 MR. MILLER: Well, wait till you get                  20 hit with a four and a half or five million                  21 dollar lawsuit personally.</p>

Page 82

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.

Page 83

1 And but there's nothing that we can do about  
 2 that here tonight.  
 3 So we're here to really talk about  
 4 the WIP and the TMDL and help people  
 5 understand what is happening.  
 6 MR. VAUGHAN: My name's Dan Vaughan  
 7 and I'm from Harford County and I don't know  
 8 where to start. I'm going to apologize for  
 9 rambling because I don't know where to start.  
 10 I'm this close to either crying or puking. I  
 11 don't know which. I don't know where to start  
 12 in all this.  
 13 Okay. The WIP meetings, we had one  
 14 in February. We're going to get together in  
 15 September and go over all these things that we  
 16 weren't given credit for. We never had no  
 17 meeting. I've been on the WIP program since I  
 18 was asked to be on the committee, and the  
 19 first meeting that we had of the committee --  
 20 and you know this, Bill -- I have never been  
 21 contacted once about another meeting.

Page 84

1 I don't know where you're getting  
 2 your information on what we get credit for and  
 3 what we don't get credit for. I just found  
 4 out two weeks ago information about the CREP  
 5 program which gives you credit for a lot of  
 6 other conservation things that we do that we  
 7 don't get credit for. This has been going on  
 8 for years but I never knew about it.  
 9 This meeting, I didn't know about it  
 10 until two days ago. Now, maybe I am supposed  
 11 to be on a computer or something. I don't  
 12 know. But I'm not. We have to find out this  
 13 information by ourselves.  
 14 Okay. The next thing. When you're  
 15 talking about the bay loading, I want -- does  
 16 anybody here realize that when the earthquake  
 17 happened back a couple of months ago, a  
 18 54-inch main sep coming out of Baltimore City,  
 19 20 million gallons a day for 30 days raw  
 20 sewage into the bay. Was that on the news?  
 21 How many -- hold up your hands. How many knew

Page 85

1 that? Okay. Was it on the news? No.  
 2 I found out about it from a  
 3 Baltimore County sewer foreman and he said if  
 4 they admitted to 20, you can figure it's  
 5 double that. So all of our work continues to  
 6 get wiped out by this municipal stuff and it  
 7 goes on and on and on and on.  
 8 The EPA has got to leave us the heck  
 9 alone. I don't know where -- I don't know how  
 10 we're going to stop it but something's got to  
 11 be done. You're talking about -- he made  
 12 mention about people being sued and, John, you  
 13 were in on this just a year or so ago and the  
 14 efficiency, the money that you're dumping into  
 15 this and you're not accomplishing nothing.  
 16 You've spent \$20 billion to get to where we  
 17 are today and you're still saying the bay is  
 18 no better.  
 19 You went after a local farmer for  
 20 two years, costs I don't know how many  
 21 millions of dollars, and Judge Cavanaugh fined

Page 86

1 him 20 bucks because he did everything he was  
 2 supposed to do. But you and people in the  
 3 Maryland EPA went after him, went after him,  
 4 went after him and just about drove the poor  
 5 man insane and bankrupted him, almost  
 6 bankrupted him.  
 7 And when it came down to it, all the  
 8 facts were studied and read, it cost the state  
 9 I don't know how many million dollars, they  
 10 fined him \$20.  
 11 Now, this is what we're trying to  
 12 make you understand, you have to leave us  
 13 alone.  
 14 Septic tanks. There is no better  
 15 way to deal with wastewater than septic tanks.  
 16 I don't care what anybody says. My well is  
 17 tested every year by the state with my well  
 18 permit. My well is 40 feet deep. My septic  
 19 tank was put in in 1920 when they built my  
 20 house. It is 60 yards from my well. I have  
 21 perfect water because it works. Yes, some of

Page 87

1 them may fail but you can't make these blanket  
 2 assessments.  
 3 Then the next thing I want to yell  
 4 about, about these assessments. Here was  
 5 regrets, okay, well, this model is going  
 6 wrong, but they keep changing it. Well, it  
 7 didn't work out this way so, well, we will  
 8 just readjust it to make it -- it's all smoke  
 9 and mirrors. It's like a giant shell game.  
 10 Where's the pea next? You keep moving it, you  
 11 keep changing the rules.  
 12 Like he said, where is it going to  
 13 end? When is it going to end? I don't know.  
 14 I don't understand, you know, what we're  
 15 supposed to do as a people. How are we  
 16 supposed to feed all of you people? How are  
 17 we supposed to feed the world?  
 18 In the next -- by 2050, agriculture  
 19 of the world is going to have to produce as  
 20 much feed for human consumption in the next 40  
 21 years as it has in the past 10,000 years, in

Page 88

1 the next 40 years. How are we going to do  
 2 that if we keep constantly have to play these  
 3 silly games.  
 4 The meeting that we had in Bel Air,  
 5 you were there and I talked to you then.  
 6 We're going to get credit for these things?  
 7 MR. RHODERICK: Yes.  
 8 MR. VAUGHAN: Well, it's all  
 9 pickety-pick bullshit stuff. If you want to  
 10 fix something, start with municipal, get that  
 11 fixed, no more municipal wastewater going into  
 12 the bay, untreated, then come back and start  
 13 worrying about us.  
 14 We don't pollute intentionally. We  
 15 don't pollute -- we can't. We can't afford  
 16 it. Every drop of manure that we produce, we  
 17 utilize for our crops. Every time we go out  
 18 on the field, we're getting scrutinized. Oh,  
 19 we can't spread manure before March 1st. Now,  
 20 my neighbor is spreading sludge. He's been  
 21 spreading sludge for two weeks. When you call

Page 89

1 the Maryland DA, complaining, do you know what  
 2 they tell me? It's permitted.  
 3 Now, he can spread sludge but you're  
 4 not supposed to spread manure. It's all smoke  
 5 and mirrors. And how are we supposed to care  
 6 about anything you people are doing when  
 7 you've been goofing around all this time and  
 8 you've accomplished nothing? I mean, I don't  
 9 know.  
 10 MR. ESKIN: Well, we actually have  
 11 accomplished a lot. In the face of growth,  
 12 we've stabilized the loads going into the bay.  
 13 There is some areas that have been showing  
 14 significant improvement. You cite, you know,  
 15 a pipe that broke. Yes, things that we build  
 16 break occasionally. It was fixed. The sewage  
 17 is relatively removed. We're going to have a  
 18 city --  
 19 I'm sure things break on your farm  
 20 and then you fix them. Well, this broke,  
 21 probably was 50 or 60 or 70 years old. It

Page 90

1 broke in the earthquake, certainly that  
 2 couldn't be predicted, and they fixed it as  
 3 quickly as they could. We were spending two  
 4 billion dollars, more than that, across the  
 5 state to fix these things that happen more  
 6 frequently.  
 7 You know, basically it's old,  
 8 there's pinholes in the pipes and so forth.  
 9 We are fixing that. We are making progress.  
 10 Where we're not making progress, more people  
 11 come in -- as you point out, there's going to  
 12 be more people in the world. We're fighting  
 13 against that as well.  
 14 I think that the agriculture  
 15 community is certainly doing its part. There  
 16 is no doubt about that. But there are areas  
 17 where it's likely that too much manure is  
 18 generated, more than can be used locally.  
 19 Across the state, it might be fine but there  
 20 are local areas and then what happens when it  
 21 runs off.

Page 91

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

Page 92

1 streams, the Potomac is a cesspool and now  
 2 it's a bass fishery.  
 3 We are making progress. Sometimes,  
 4 you know, it seems like, well, they're picking  
 5 on me or they're getting too nitpicky about  
 6 things that we need to do. We're all hanging  
 7 through stuff. That is how we make progress.  
 8 Now we're getting to the more difficult phase  
 9 and it is hard. I understand that. But we're  
 10 told that, you know, according to our laws it  
 11 needs to be done and so we're trying to do the  
 12 best we can.  
 13 I mean, in some states the state may  
 14 have developed a plan all by themselves. Are  
 15 we perfect? No, of course we're not perfect.  
 16 We're doing the best we can under the current  
 17 situation. We're soliciting input. We're  
 18 doing our best to get the word out, we're  
 19 holding these meetings, you know, again and  
 20 again.  
 21 If we missed you, I'm sorry about

Page 93

1 that. Get your name to John, I'll make  
 2 sure -- they'll put you on the list and make  
 3 sure we send you a letter. I don't know what  
 4 more to say beyond that.  
 5 MR. RHODERICK: Just real quick, I  
 6 mean, I am really proud of Maryland farmers  
 7 because if you look, and I'm looking right  
 8 across the board, I mean -- Bill, help me out,  
 9 what was the one in Virginia or was it  
 10 Pennsylvania, 49,000 farmers?  
 11 MR. THARPE: Yes, Pennsylvania,  
 12 49,000 farmers in the Chesapeake Bay, 30,000  
 13 of them didn't have conservation plans.  
 14 MR. RHODERICK: We've got over 68  
 15 percent conservation plans in Maryland. I  
 16 mean, you look -- as you say, look at the  
 17 cover crops you've got. We are so far --  
 18 we're showing you the numbers up there, as you  
 19 said, like raw load, we're making almost 10  
 20 million pounds a year from what you're already  
 21 doing and we only have to do four million

Page 94

1 more. I think Pennsylvania, they have got to  
 2 come up with a plan for 12 million pounds.  
 3 I mean, we are so far ahead and, you  
 4 know, there is a goalpost and I think with the  
 5 plan we've got in place, we can beat it. That  
 6 is huge right there.  
 7 I am not discouraged. I'm just  
 8 thrilled we're here. I'm aware of that  
 9 because these other, Virginia and  
 10 Pennsylvania, they don't have a plan still.  
 11 MR. MILLER: So, John, when you  
 12 reach that goal, will you go away?  
 13 MR. RHODERICK: Me personally?  
 14 MR. MILLER: It started out with  
 15 nitrogen. Nitrogen was a problem. Well, then  
 16 when we found out -- well, let's find  
 17 something else, so then we went to phosphorus.  
 18 Now it's sediment, now it's septic. The rules  
 19 keep changing and the better you get, the more  
 20 you twist the screws.  
 21 MR. RHODERICK: Well, what we have

Page 95

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.

Page 96

1 One is about the model. And I want  
 2 to ask, on the model, what kind of compliance  
 3 information was put into the model regarding  
 4 point sources? That is, is the model a  
 5 best-case scenario if everything is working  
 6 under permit conditions, or was the compliance  
 7 information put in on actual permit  
 8 conditions?  
 9 MR. ESKIN: They used the actual  
 10 discharge monitoring data. In fact, that was  
 11 a problem for us this year because it  
 12 looked -- it's been a very heavy rainfall year  
 13 and the wastewater treatment plants get  
 14 something called inflow infiltration and it  
 15 increases the flow through the plant. So the  
 16 loads go up just because of the rain, even  
 17 though the plant's operating more efficiently.  
 18 So yes, it's actual data that goes into the  
 19 model profile process.  
 20 MR. LE GARDEUR: And I wanted to  
 21 mention I come from a family of farmers in

Page 97

1 Louisiana and these farmers, they're asking  
 2 about wastewater treatment plant loads and  
 3 storm water loads.  
 4 Really, those questions interest me  
 5 too because I know that looking at nitrogen in  
 6 Baltimore County, on the Phase II WIP,  
 7 nitrogen is about ten times about that as far  
 8 as the load allocations that are represented  
 9 in the Baltimore County plant, and phosphorus  
 10 loads are about three times that.  
 11 Yet when I look at wastewater  
 12 treatment plants throughout the Baltimore  
 13 County watershed, there's six wastewater  
 14 treatment plants and only one by 2020 is going  
 15 to be updated to connect to Back River and the  
 16 others don't have any other plants to be  
 17 updated.  
 18 MR. ESKIN: These are minor plants?  
 19 MR. LE GARDEUR: They're minor  
 20 plants, yes.  
 21 MR. ESKIN: And we looked at that

Page 98

1 and it's still on the table. In fact, we put  
2 into the WIP that we would upgrade five plants  
3 statewide. The task force recommended we do  
4 ten. We're still looking at that.  
5 The major plants, the 67 major  
6 plants account for 95 percent of the flow. So  
7 all of those minor plants put together are  
8 only five percent and it's really not  
9 necessarily very cost effective statewide to  
10 upgrade those plants, although locally it  
11 might be able to make a difference.  
12 That is part of what is going into  
13 the process of deciding which plants -- which  
14 of those -- which of the five minors that  
15 we're going to upgrade might be local  
16 conditions [inaudible].  
17 MR. LE GARDEUR: I would love for  
18 you to push Baltimore County to look at  
19 upgrading the minor plants that are in  
20 Baltimore County because we have seen so many  
21 beach closures at Haviland and down towards

Page 99

1 the Bird River, Lower Gunpowder in the summer  
2 and fall.  
3 MR. ESKIN: When there's closures,  
4 that's usually due to bacteria, not nutrients,  
5 and really if there is a bacterial issue, that  
6 would be handled with compliance. Basically  
7 these days, disinfection is very, very good.  
8 We know how to do it very well. We have been  
9 doing it for about a hundred years. So the  
10 beach closures probably aren't necessarily due  
11 to wastewater treatment plants.  
12 MR. LE GARDEUR: Well, we have storm  
13 water and we have other -- and we have --  
14 MR. ESKIN: I was --  
15 MR. LE GARDEUR: -- a consent  
16 decree, Baltimore County consent decree.  
17 They're not supposed to have any spills by  
18 2020 but it happens every time it rains.  
19 MR. ESKIN: Usually, the spills are  
20 not at the plant themselves. They're in the  
21 piping and transport system and that's what

Page 100

1 that million dollars was going to fix.  
2 MR. LE GARDEUR: Okay. All right.  
3 Thank you.  
4 MR. ESKIN: So we're working on  
5 that.  
6 Do you know how much the actual  
7 consent decree is, like 1.2 million?  
8 MR. STEWART: Yes, I think for  
9 Baltimore County the price tag is somewhere  
10 around 1.2 million dollars. We've got until  
11 2020 to get all of those upgrades in and there  
12 are still some without consent decree. And  
13 the city has until 2014. They actually had  
14 the consent decree before we did.  
15 The major focus originally is on the  
16 system itself, looking at finding the leaks  
17 and so forth but it's also on the pumping  
18 stations. There's 120 some odd pumping  
19 stations. They're not treatment stations but  
20 because sewage flows downhill, basically  
21 you've got to get over the hill to get it to

Page 101

1 the treatment plant and so they've put a lot  
2 of progress on the pumping stations, getting  
3 those up and they have actually prioritized  
4 the systems based on age.  
5 So the older the system, the earlier  
6 it is in terms of going in, checking it, and  
7 they have to do flow studies, they have to  
8 calibrate the systems and then they have to  
9 identify based on that -- identify where the  
10 problems are and then get the design to our  
11 system. In some cases it's simply relining,  
12 in other cases it's actually replacing the  
13 existing system with a brand-new system. So  
14 it's not an easy thing to do. It takes a  
15 little bit of time to go through your design  
16 and all of that but it is making progress.  
17 In terms of the bacteria at the  
18 beaches, storm water runoff, if you fix all of  
19 the sanitary sewer and you don't have any  
20 leaks, you're still going to have bacteria  
21 problems at the beaches. That is just because

Page 102

1 we have wildlife, we have pets, we have other  
 2 sources of bacteria, you're going to have  
 3 [inaudible].  
 4 I don't think there is anywhere in  
 5 the United States after a rain event that  
 6 you're going to actually not have problems  
 7 with bacteria.  
 8 MR. LE GARDEUR: Can I ask a quick  
 9 follow-up on storm water. So the follow-up on  
 10 storm water, as you mentioned, compliance has  
 11 been a big aspect of how you regulate  
 12 wastewater treatment plants. I understand  
 13 that MDE is under a consent decree to  
 14 essentially evaluate storm water in Baltimore  
 15 County every three years.  
 16 MR. ESKIN: I mean, basically the  
 17 program is every five years. We're working  
 18 with EPA on that.  
 19 MR. LE GARDEUR: But MDE is to  
 20 provide a compliance aspect to Baltimore  
 21 County storm water?

Page 103

1 MR. STEWART: There is a number of  
 2 things MDE has to do. The actual storm water  
 3 regulations are delegated for enforcement at  
 4 the local level and so MDE, every three years,  
 5 does a delegation review -- it's not under a  
 6 consent decree or anything like that -- for  
 7 erosion and sediment it's every two years.  
 8 Again, it's a delegation thing and  
 9 then MDE comes out and looks at the program,  
 10 looks to see whether it's accurate, whether  
 11 it's meeting everything it's supposed to do  
 12 and whether we're fixing it if it's not. But  
 13 I'm not aware of any consent decree.  
 14 MR. ESKIN: No, I didn't hear  
 15 anything about that either.  
 16 Is there anybody who hasn't asked a  
 17 question yet who has a question to ask?  
 18 MS. POWERS: Jen Powers, Gunpowder  
 19 Valley Conservancy. This goes back to the  
 20 farmer's comment about just learning about  
 21 CREP. The 2008 Farm Bill had a lot of

Page 104

1 programs for conservation and money for  
 2 farmers but what I had learned was that there  
 3 wasn't enough staff, I guess, maybe to  
 4 implement at the ag district or [inaudible].  
 5 But just in the framework to get the word out  
 6 to advise farmers on this money is available  
 7 to them.  
 8 How is Maryland going to change that  
 9 and is Maryland working towards making sure  
 10 those programs are retained in the 2012  
 11 reorganization of the Farm Bill?  
 12 MR. RHODERICK: Okay. Good  
 13 question. Great. We have a good answer,  
 14 hopefully. Basically, you're right. Where  
 15 we're at is it's never been about our  
 16 programs. We have capital moneys. It's the  
 17 ability to get out and work with individual  
 18 farmers.  
 19 At this point, the best we do is  
 20 when a farmer comes in to us and says I heard  
 21 about this and I am interested in it, would

Page 105

1 you come out and look. We have a backlog in  
 2 the office of people like that.  
 3 So that means we're not doing the  
 4 other, which is going out and visiting the new  
 5 cooperators or working with farmers and  
 6 really, you know, providing assessment service  
 7 that we should, so, right. And that is the  
 8 issue.  
 9 Just as you heard, people are  
 10 unaware. As these programs roll out, we can't  
 11 get the word out. We send newsletters. These  
 12 guys do a great job, you know, but, you know,  
 13 you really need to go down the lane and knock  
 14 on doors and we don't have that ability.  
 15 So with that in mind and what you  
 16 saw up here, when we did talk to the governor,  
 17 we were understaffed and he saw these figures  
 18 about we have to go to an aggressive strategy,  
 19 we can't do it with the existing resources.  
 20 He recognized that, and if you  
 21 notice, right now there is in the legislation

Page 106

1 under the trust fund, they would potentially  
 2 provide us enough funding to hire 30  
 3 additional people. Sounds like a big number  
 4 but that's about one additional person in each  
 5 conservation district, but that's a great  
 6 start.  
 7 I think we did our analysis based on  
 8 that and we need about 140 to 160 people to  
 9 initiate it and we have about 80, so 30 is a  
 10 great start towards that number but we're  
 11 still going to need more.  
 12 MS. POWERS: And what are you doing  
 13 to protect those benefits that were in the  
 14 2008 that are maybe cut in the 2012?  
 15 MR. RHODERICK: Well, that's at the  
 16 national level. You have seen what I have  
 17 seen in the paper. While they're increasing  
 18 funding, certain sections of the Farm Bill is  
 19 under attack. That's all I can say at this  
 20 point.  
 21 MS. HORSEY: John, we have those

Page 107

1 people that are out there doing CREP outreach  
 2 now.  
 3 MR. RHODERICK: Right. We do -- we  
 4 did hire specific CREP -- we do have a couple  
 5 of people doing grant funds to -- we got some  
 6 grant money do that.  
 7 MR. WILLS: Keith Wills, Baltimore  
 8 County Farm Bureau. We're working -- we just  
 9 met earlier this week at the soil conservation  
 10 district, trying to put a program together to  
 11 I guess to inventory the [inaudible] BIDs.  
 12 Two questions I have that came from  
 13 this and I am not sure if you know the answer  
 14 or not but the nutrient training programs,  
 15 they're verified on an annual basis, correct?  
 16 MR. RHODERICK: Depends on the BMP.  
 17 Annual practice -- everything has to be done,  
 18 at least annual verification. Those cover  
 19 crops are [inaudible].  
 20 MR. WILLS: A question on that. Is  
 21 there any type of outreach that's actually

Page 108

1 going on to educate the, I'm going to call it  
 2 the absentee landowner. That is the ground  
 3 that is being tilled by a farmer, owned by  
 4 someone else, as to having, like I said, a  
 5 longer term lease contract on that land.  
 6 Because, let's be honest, if it's a  
 7 cover crop program and it's being done on a  
 8 annual basis and you've only got a one-year  
 9 lease on the ground, right? Are you going to  
 10 put any more money than what's available? You  
 11 need to get your one crop out of there when  
 12 you don't know if you're going to be -- if  
 13 that ground's going to be yours.  
 14 Are there any -- is there any plan  
 15 for any type of outreach or education programs  
 16 for anything like that?  
 17 MR. RHODERICK: For the absentee  
 18 landowners, I mean, obviously if you lease  
 19 ground, you've got the guys here, as you say  
 20 leased ground is all about, you know, who is  
 21 going to pay the most. So, you know, if I am

Page 109

1 a landowner, you know, I've got a couple of  
 2 farmers who want to lease it, do I want to tie  
 3 myself into somebody and pony up, no.  
 4 MR. WILLS: When you say it doesn't  
 5 have to be, you know, the newest and best  
 6 [inaudible].  
 7 The other question I have is -- I am  
 8 not sure you can answer this one either. If  
 9 you're doing an actual cost share BMP, it was  
 10 brought to my attention that if the profit is  
 11 actually, the cost share portion is over the  
 12 \$5,000, that there's actually attachment to  
 13 the deed of the landowner's property that runs  
 14 that away from the BMP; is that correct?  
 15 MR. RHODERICK: Eric, help me. Is  
 16 it 10,000?  
 17 MR. HINES: Five.  
 18 MR. WILLS: I had talked with  
 19 several people this weekend and knows the  
 20 program and they're not aware of that at all.  
 21 And actually those who were aware, that is a

<p style="text-align: right;">Page 110</p> <p>1 real -- very negative that if you're a 2 landowner, have something attached to the deed 3 of the property, they're very concerned about 4 that. I just see that as a major aspect of 5 going forward in the cost share programs but 6 that is the -- 7 MR. RHODERICK: That's the 8 controller's office. These are taxpayers' 9 dollars so they want, you know, accountability 10 that, you know, funds expended, you know, is 11 maintained and it's there. So that is 12 something that is from the controller's 13 office. 14 MR. WILLS: Okay. 15 MR. SWACKHAMER: Another question 16 on -- I'm Gene Swackhamer, farmer in Baltimore 17 County and also MARC here in this building. 18 On the trading of nutrient values 19 that are appropriate, does the -- I can see it 20 in the aggregate how it benefits and how it's 21 an escape valve for further development, but</p>	<p style="text-align: right;">Page 112</p> <p>1 buyer's located and where the seller is. So 2 I'll say if you're a buyer, keep it simple, 3 you know, here in Baltimore County. But if 4 you're buying, let's say, in Washington 5 County -- 6 MR. SWACKHAMER: The buyers are 7 going to be wellers. 8 MR. RHODERICK: Well, the buyers, 9 the wellers here, the only offset you can find 10 in Washington County, we have a mechanism in 11 place and, again, it's a model mechanism but 12 it talks about the delivery ratios. So you 13 equate both loads delivered to the bay. So 14 where you're located, what -- 15 MR. SWACKHAMER: That's right. 16 That's why it works well in the aggregate, but 17 not if it's starting slurry home fairly 18 quickly. 19 MR. ESKIN: Well, trades are limited 20 to -- I mean, there is -- if there is 21 something that is going to cause degradation</p>
<p style="text-align: right;">Page 111</p> <p>1 is there any basin or county constraints on 2 the trading so that the credits and so forth 3 in the aggregate also get reflected at the 4 point at which the use is being developed? Do 5 you follow what I am saying on that? 6 MR. RHODERICK: Are you talking 7 about delivery ratios or equating a pound as a 8 pound? 9 MR. SWACKHAMER: Well, yes. If in 10 the aggregate you're looking at basins or a 11 large territory, the nutrient trading will 12 work very well, I think. But then if it's an 13 adjacent property to me, and it more than 14 offsets anything that I've ever done because 15 all of a sudden they've benefited septic tanks 16 in another county but they're not working on 17 the stream that flows through my property, how 18 do you get -- it's distorted data, I think, 19 after a while. 20 MR. RHODERICK: We have in -- the 21 tool we use, it looks at both where the</p>	<p style="text-align: right;">Page 113</p> <p>1 of water, that trade would not be allowed. So 2 basically, and because John has the 3 thresholds, you need to have a certain -- you 4 need to have done a certain amount towards the 5 restoration goal, you can't -- you'll be in 6 good shape locally as well. 7 MR. RHODERICK: We actually had that 8 case on a plant that's not to be named. It 9 was on a tributary and they wanted to increase 10 their flow and they wanted to trade by 11 offsets. But in loading the model, by them 12 putting more load into that specific 13 tributary, it was going to create -- it would 14 have caused a problem so they couldn't trade. 15 Even though they wanted to expand, you can't 16 do it. 17 MR. THARPE: Bill Tharpe from 18 Harford County Soil Conservation. I don't 19 want to be pessimistic but I need to hear the 20 answer to the other side of the coin. 21 In the past meetings, in the ag work</p>

Page 114	Page 116
<p>1 group meetings, we've talked about</p> <p>2 contingencies and I assume the contingencies</p> <p>3 are if we don't meet our goals, but when will</p> <p>4 they kick in? Will they kick in at 2017, at</p> <p>5 2025? Who establishes those contingency plans</p> <p>6 and, you know, then who has enforcement --</p> <p>7 MR. ESKIN: I can't give you a</p> <p>8 definite answer. I think that the way it will</p> <p>9 likely work is that, well, we like to be</p> <p>10 working with counties. I'm sure John will</p> <p>11 continue working with you conservation tracker</p> <p>12 to know where we are. I would expect that the</p> <p>13 first point at which we talk seriously about</p> <p>14 consequences would be the 2013 milestones, and</p> <p>15 unless something goes through in the General</p> <p>16 Assembly, now basically you can't do anything</p> <p>17 unless it's all paid for. Conowingo can't</p> <p>18 open its gates, Conowingo can't close its</p> <p>19 gates, you know, it's all over the place.</p> <p>20 If we can have something like that,</p> <p>21 and gave copies of that to the media, they</p>	<p>1 It would be a mess for everybody. They'd much</p> <p>2 rather work with us, cooperatively, to make</p> <p>3 the progress.</p> <p>4 But on the other hand, in the</p> <p>5 spotlight, and these other states who aren't</p> <p>6 doing well and they permit something here,</p> <p>7 then how are they going to justify it</p> <p>8 somewhere else.</p> <p>9 So very general, we will have to see</p> <p>10 how it works out. I am optimistic that it</p> <p>11 won't come down to consequences.</p> <p>12 MR. RHODERICK: I mean, let me give</p> <p>13 you an example. If they go to the farm and</p> <p>14 they just said, what if we cut CREP out, I</p> <p>15 mean, part of your goals up there with farms</p> <p>16 as far as funds clearly there is a dialogue to</p> <p>17 go here. You entered into this contract, if</p> <p>18 you want to call it, based on, you know,</p> <p>19 funding that was in place and there's, of</p> <p>20 course, no reason to --</p> <p>21 MR. THARPE: We've already lost</p>
Page 115	Page 117
<p>1 would say, well, even though you've passed</p> <p>2 this, you're not going to be able to meet your</p> <p>3 goals, we're going to start recommending</p> <p>4 consequences and tell you what to do.</p> <p>5 But assuming that, you know, there's</p> <p>6 generally cooperation, I would say that if you</p> <p>7 look at progress in 2013, if there is</p> <p>8 something fairly seriously amiss, I would say</p> <p>9 that they would probably give us a chance to</p> <p>10 correct it. But if that correction isn't</p> <p>11 happening, then there would be discussions</p> <p>12 about consequences.</p> <p>13 They're not going to come in and</p> <p>14 say, oops, you're not making it and the next</p> <p>15 day they're going out there with the marshals</p> <p>16 or something changing permits, it's not going</p> <p>17 to happen that way. It's going to be a</p> <p>18 discussion.</p> <p>19 They don't want to impose</p> <p>20 consequences. They really, really don't.</p> <p>21 They know it would probably end up in court.</p>	<p>1 CREP, I mean, you know, Baltimore [inaudible]</p> <p>2 hasn't allocated to anything and if it does,</p> <p>3 it's going to be connected to an endangered</p> <p>4 species. So I have watched three to five</p> <p>5 projects because of that funding program not</p> <p>6 being set up the same way as it was last year.</p> <p>7 MR. RHODERICK: We've got to talk to</p> <p>8 [inaudible].</p> <p>9 MR. THARPE: Good luck.</p> <p>10 MR. AARON: Mike Aaron, Blue Water</p> <p>11 Baltimore. Couple of related questions.</p> <p>12 Number one, just staying with the whole</p> <p>13 deadline issue, county plans aren't due to be</p> <p>14 finalized until June, the state plans are</p> <p>15 going to be finalized the end of March. How</p> <p>16 do you sort of get the county information from</p> <p>17 statewide if there is that disconnect?</p> <p>18 And another sort of related</p> <p>19 question. A lot of the county plans didn't</p> <p>20 have any funding mechanisms or didn't have</p> <p>21 what I would consider adequate funding</p>

Page 118

1 mechanisms. How do you submit a statewide  
2 plan without knowing how these things are  
3 going to be funded?  
4 MR. ESKIN: There is actually a fair  
5 amount of funding in total, not nearly enough  
6 for what we need, but there is a fair amount.  
7 Part of the reason, not going into details, is  
8 that it's based upon [inaudible] is not really  
9 good for us, with us having submitted in March  
10 in the General Assembly though it's not due  
11 until the first week in April, but the Bay  
12 Restoration Fund, I mean, they're talking  
13 about now, you know, it was do we double, do  
14 we triple it. Some even said quadruple it.  
15 They may probably have to split the  
16 baby here and go somewhere about two and a  
17 half million. Then we need to look at the  
18 budget. What's in the trust fund. Where we  
19 actually have asked EPA for some more funding  
20 and they said, yes, we'll talk to you  
21 [inaudible] more funding.

Page 119

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

Page 120

1 We do know that there is going to  
2 have to be likely some local increase for  
3 storm water permits and local upgrades,  
4 regardless. Several municipalities, at least  
5 one county, two if you count Prince George's,  
6 have a storm water utility, P.G.'s value added  
7 tax. That's a good place to start, at least  
8 to get the authorizations and the structure in  
9 place, even if you don't actually begin  
10 imposing funding right now.  
11 That's the kind of progress EPA's  
12 going to look for, and you can get revenue.  
13 You have to set up meetings even if that  
14 revenue isn't just coming in just yet.  
15 MR. THARPE: That was a long way to  
16 say you're not sure, but we'll do the best we  
17 can.  
18 MR. ESKIN: That's exactly right.  
19 There are unknowns. These are bad --  
20 economically, it's a bad time to start this,  
21 but every other time we try to make progress,

Page 121

1 there was, oh, not now, we can't afford it  
2 now. It's been spent, it's too complicated.  
3 Until finally, you know, it just all exploded  
4 and it happened to explode at the very worst  
5 possible time.  
6 MR. THARPE: Any guesses on how to  
7 deal with what is going to be a significant  
8 shortfall for bills that are currently in the  
9 legislature for funding, storm water for  
10 funding, dealing with septic that don't pass?  
11 MR. ESKIN: I don't even want to  
12 think about it if they don't pass this. If  
13 the bay legislation funding doesn't pass, that  
14 is a whole new ballgame and I have no idea how  
15 that is going to turn out. I've heard that it  
16 seems very likely there is going to be some  
17 agreement. I don't know more than that. I am  
18 not directly involved with those discussions.  
19 MR. MCGINNIS: The greatest loading  
20 just seems to be on the Eastern Shore -- Wayne  
21 McGinnis, farmer. Greatest loading is on the

Page 122

1 Eastern Shore, the Potomac watershed. Are  
2 those farms required to have a proportional  
3 reduction in loading as compared to Baltimore  
4 County?  
5 MR. RHODERICK: Yes. I went -- a  
6 couple of you are familiar, we actually showed  
7 previously some charts and you see like -- I  
8 want to say Caroline County, the load  
9 reduction they were looking at was almost a  
10 million pounds, Kent County was a million  
11 pounds. Whereas in Baltimore County, based on  
12 the amount of land acres you had and  
13 animals -- come on, Jim, help me, was it  
14 100,000 or 200,000 pounds for Baltimore  
15 County?  
16 MR. THARPE: 235.  
17 MR. RHODERICK: 235. So yes,  
18 depending on how much ag acreage you had and  
19 the amount of animals, that's how -- that's  
20 what drove those load numbers per county.  
21 MR. AARON: [Inaudible.]

Page 123

1 MR. ESKIN: I'm sorry, say that  
2 again.  
3 MR. AARON: The MDE has delegated  
4 authority for enforcement actions.  
5 MR. ESKIN: Sure. That hasn't  
6 changed because of the WIP. It's still  
7 the same.  
8 MR. AARON: Okay. Is there any  
9 thought on how to alter loads in the case of  
10 new information that comes down for climate  
11 change?  
12 MR. ESKIN: You know, that is an  
13 interesting question and it's a very real  
14 question. I don't think that we know enough  
15 to answer it at this time. We know, for  
16 example, or we believe the trend seems to be  
17 that because of climate change, we're seeing  
18 larger variations in the weather. So you  
19 have, you know, downpours more often than you  
20 used to. You have higher winds than you  
21 used to.

Page 124

1 So it's a good question. If we're  
2 designing for what has been happening in the  
3 past, say, you know, one inch is becoming a  
4 larger and larger portion of our total  
5 rainfall, going to come in larger storms  
6 rather than the average storm. In other  
7 words, the precipitation in the average storm  
8 is going up.  
9 We have to -- we don't have enough  
10 experience, enough data yet to really make any  
11 projections, but I am pretty confident  
12 somebody is going to bring that up for the  
13 next generation model and whether or not we  
14 can do that.  
15 Even now, though, we use an average  
16 period of like a ten-year hydrology, so  
17 that's, you know, not affected by year to  
18 year. We may have to move that ten-year  
19 period up to capture more variation than we  
20 had. You know, 15 years ago with ten-year  
21 hydrology we were using in this iteration of

Page 125

1 the model. But yes, I mean, we are going to  
2 get more sediment into the water as the water  
3 level goes up and we have a rising water  
4 level.  
5 MR. AARON: [Inaudible] farmers.  
6 And then we come back to them and then say,  
7 hey, there's more sediment, there's more  
8 nutrients [inaudible].  
9 COURT REPORTER: I'm sorry, I can't  
10 hear anything you're saying.  
11 MR. AARON: It seems like the  
12 discussion on the reduction of sediment is  
13 pretty weak.  
14 MR. ESKIN: Yes.  
15 MR. AARON: But based on the  
16 understanding that the phosphorus finding of  
17 sediment and the impact of storms, it seems  
18 that we need some more detail in that section.  
19 MR. ESKIN: We have been working on  
20 nutrients for 20 plus years. We've really  
21 haven't been working on sediment for nearly

Page 126	Page 128
<p>1 that long and I'm sure we're going to see some                  2 improvements in the way we handle sediments in                  3 the revision of the model in -- by 2017.                  4 Right now, it's actually a pretty                  5 good estimate that the practices that we use                  6 to control phosphorus, which is basically                  7 keeping the sediment in place, we're also                  8 keeping sediment in place obviously in roughly                  9 the right amount. There is some places where                  10 that may not prove to be true, very                  11 specifically if a lot -- let's say a                  12 particular basin, most of the phos reductions                  13 coming from the wastewater treatment plants,                  14 we are just directly getting a lot of                  15 phosphorus reduction but no associated                  16 sediment reduction.                  17 That is where that will fall apart.                  18 So now D.C. might have a problem with the Blue                  19 Plains Committee, but on the other hand,                  20 they're paved over so where is the sediment                  21 going to come from.</p>	<p>1 transcript so that people who were not able to                  2 attend tonight can get online and see what                  3 went on and maybe they can form their own                  4 questions. They won't be here but at least                  5 they'll be posted on the Agro-Ecology's Web                  6 site.                  7 MR. AARON: I only have two more.                  8 MR. ESKIN: Let's get them both at                  9 once.                  10 MR. AARON: These are a little more                  11 detailed so bear with me. On page 39, there                  12 is a reference to "those needing to purchase                  13 nutrient offsets will be required to purchase                  14 slightly more credits than they need." What                  15 does "slightly" means?                  16 MR. ESKIN: Well, that's part of the                  17 policy that we're working out.                  18 MR. RHODERICK: If you actually look                  19 at the current trading program policy, it                  20 talks about, as you said, we're very concerned                  21 not just to have a one-on-one trade, so right</p>
Page 127	Page 129
<p>1 So it might be a load problem but                  2 statewide we don't think it's going to be too                  3 much of an issue. Overall, we'll get a better                  4 approximation of that in 2017, I think.                  5 MR. MILLER: I have a comment. And                  6 it's great that we can all come here tonight                  7 and get together and talk and you can hear                  8 different points of view and still be civil.                  9 And I've lived a real sheltered life. I mean,                  10 I don't get out much and I don't want to cause                  11 anyone embarrassment by singling one person                  12 out, but I have to.                  13 It's fascinating me, this young lady                  14 sitting over here tonight. She's been                  15 recording all this, her fingers have not                  16 stopped since we started.                  17 And you're to be commended for it.                  18 COURT REPORTER: Thank you.                  19 (Applause.)                  20 MR. ESKIN: By the way, the reason                  21 that she's doing that is so that we can post a</p>	<p>1 now we're required for trading ten percent                  2 over. So if you were the buyer and you needed                  3 a thousand credits, we're going to make you                  4 buy 1100. You get your thousand but the other                  5 ten percent goes through, the good with the                  6 bad [inaudible].                  7 MR. ESKIN: That's on the trading.                  8 MR. RHODERICK: That's on the                  9 trading.                  10 MR. ESKIN: But on the offset                  11 policy, the ratio's maybe higher.                  12 MR. RHODERICK: Right. They may be                  13 higher. Depending on where you're looking.                  14 There is that whole component.                  15 MS. HORSEY: The part that he's                  16 referring to is under Safety Margin for                  17 Offsets.                  18 MR. ESKIN: One more question, then                  19 we will give you a shot, or did you want to                  20 address this?                  21 SPEAKER: Yes. It's my</p>

<p style="text-align: right;">Page 130</p> <p>1 understanding that the offset policy is about 2 a year away from being fully developed. 3 MR. ESKIN: I think that we're 4 trying to move that forward. In fact, we 5 talked about trying to start the public 6 discussion on that. It can come in with the 7 WIP but then we backed off because of the task 8 force and we wanted to see how the General 9 Assembly responded to that. So we will 10 probably start getting something out in the 11 spring. 12 MR. AARON: A draft. 13 MR. ESKIN: Yes, a discussion piece. 14 MR. AARON: You reached a mutual 15 guidance for details in connection to local 16 jurisdictions and that's [inaudible] in the 17 WIP which is great news. Is there any case 18 when permits have not yet had a short local 19 time period and then it's expired for several 20 years? Any assurances you can provide that 21 they'll all be complete and approved by</p>	<p style="text-align: right;">Page 132</p> <p>1 MR. RHODERICK: Yes. Remember, this 2 is a voluntary component. Unless you agree to 3 let us come out and do an assessment and we 4 can advise you whether you have credits that 5 might be salable and then it's still your 6 decision totally if you want to sell them or 7 sue them, you know. It's -- so it's -- 8 nobody's coming out and saying you've got to 9 get the [inaudible] you got to make these 10 things available. That's not what it's about. 11 MR. ESKIN: There is also an 12 assumption in your question that I think is 13 important to address. We're not going to be 14 tracking things at the level of an individual 15 spill for a farm or for a wastewater treatment 16 plant with a broken pipe or something like 17 that. Basically, that's not an ongoing road. 18 That's something that will be fixed. 19 That's not to say that there won't 20 be an enforcement action but it's not going to 21 be a part of the WIP per se. Basically, we're</p>
<p style="text-align: right;">Page 131</p> <p>1 December 31st, 2012? 2 MR. ESKIN: I would be willing to 3 put it in the WIP having milestones, specific 4 dates. We have talked about that with EPA. I 5 don't remember the exact dates so I don't want 6 to commit here but they have insisted as part 7 of their evaluation of our draft WIP and our 8 milestones that we commit to firm dates and 9 they will be in the milestones in WIP. 10 MR. AARON: Thank you for your 11 patience. 12 MR. MARK McGINNIS: Mark McGinnis, 13 farmer. I just would like to say about the 14 issue of trades. Possibly all of the ag 15 industry, when they come up with these extra 16 above and beyond what they need, that we save 17 them for farmers. So if a farmer has a 18 spill, we could use that all for them and let 19 the urban and septic take care of their own 20 and come up with their -- [inaudible] make 21 fining them to do the infrastructure.</p>	<p style="text-align: right;">Page 133</p> <p>1 looking longer term where we are on loads. So 2 you would not be debited, if you will. 3 With respect to the WIP for a spill 4 on your farm, MDE might be out or 5 conservationists might be out to see if they 6 can fix it, but it's not really going into 7 those calculations. It's just too 8 insignificant, it's ephemeral. That's not 9 what we're asking. We just can't deal with 10 those. 11 So I just want to -- it's not Big 12 Brother here watching, you know, every ounce 13 of nutrients. These are broad planning 14 targets and, you know, we're talking at the 15 basin level, we'll get to the state. So they 16 are, you know, broad-based plans. 17 SPEAKER: Did the variables account 18 for it? 19 MR. ESKIN: It's decibel dust. It's 20 lost in the noise of, you know, the change in 21 rainfall you get each year and the slight</p>

Page 134	Page 136
<p>1 variation of the limitation efficiency and the</p> <p>2 soil, it's just minor.</p> <p>3 SPEAKER: Except in the case of</p> <p>4 the --</p> <p>5 MR. ESKIN: Locally, it would have</p> <p>6 little effect depending on size. But in terms</p> <p>7 of the baywide, that's not going to be</p> <p>8 tracked.</p> <p>9 SPEAKER: But somehow it should be</p> <p>10 monitored somehow because if you go back and</p> <p>11 look at the track record of these treatment</p> <p>12 plants and they're continually and continually</p> <p>13 having overflows, having spills: 100,000, one</p> <p>14 million, two million, 200,000. It's constant.</p> <p>15 MR. ESKIN: And it does get</p> <p>16 captured. There's something called a</p> <p>17 calibration the bay program does with the</p> <p>18 model. The model says you should have -- at</p> <p>19 this time of the year in this location, you</p> <p>20 should have this amount of concentration of</p> <p>21 nutrients in the water. That is the place</p>	<p>1 ammonia. There could be several forms of</p> <p>2 nitrogen that come off in a gaseous state.</p> <p>3 MR. ESKIN: Yes. Okay. Let's take</p> <p>4 a step back. A little chemistry. The forms</p> <p>5 of nitrogen that we're concerned about is</p> <p>6 three major forms. There is ammonia, there's</p> <p>7 nitrate and there's nitrite. Those are the</p> <p>8 forms that are biologically active.</p> <p>9 When it goes into the wastewater</p> <p>10 treatment plant, it's enhanced nutrient</p> <p>11 removal basically through a bunch of reactions</p> <p>12 that happen because of bacteria. First</p> <p>13 without oxygen and with oxygen they change</p> <p>14 that ammonia, nitrate and nitrite into N2 gas.</p> <p>15 That is the -- 80 percent of our atmosphere is</p> <p>16 this N2 gas and that is not biologically</p> <p>17 active.</p> <p>18 So that is the whole reason why this</p> <p>19 is so efficient, it works. It takes forms</p> <p>20 that cause problems and converts them into a</p> <p>21 form that's essentially inert. It doesn't</p>
Page 135	Page 137
<p>1 where we monitor and then we compare the model</p> <p>2 projections to the monitored data. So it's a</p> <p>3 ground-truthing for the model and they make it</p> <p>4 match up.</p> <p>5 And the reason they do that is that</p> <p>6 there are increments, small loads, you know,</p> <p>7 you can't capture them individually, but in</p> <p>8 MAST you capture them through calibration. So</p> <p>9 that does happen. It's not going to capture</p> <p>10 that particular one, but if you assume that</p> <p>11 the spills are random and distributed in body,</p> <p>12 random and distributed in space, then you will</p> <p>13 in fact be capturing them through the</p> <p>14 calibration check.</p> <p>15 MR. KLINGELHOFETZ: Bill</p> <p>16 Klingelhofetz. I had a question about how you</p> <p>17 capture the gaseous nitrogen that comes off of</p> <p>18 the sewerage treatment plants.</p> <p>19 MR. ESKIN: You mean methane or</p> <p>20 ammonia or what?</p> <p>21 MR. KLINGELHOFETZ: Methane,</p>	<p>1 interact with anything.</p> <p>2 MR. KLINGELHOFETZ: But nitrogen</p> <p>3 changes forms so many times that if you</p> <p>4 saturate something, it's not going to stay in</p> <p>5 the same form.</p> <p>6 MR. ESKIN: Well, once it's an N2</p> <p>7 gas, the primary way that's going to get back</p> <p>8 into nitrates, is just the lightning, because</p> <p>9 when the lightning heats it up it gets</p> <p>10 combustion, and the oxygen in the atmosphere</p> <p>11 combines with the nitrogen in the atmosphere</p> <p>12 to create this N2.</p> <p>13 The other forms, that happens, say</p> <p>14 power plant, that is the whole purpose of the</p> <p>15 Healthy Air Act is to capture that nitrogen</p> <p>16 before it leaves the stack so we're not adding</p> <p>17 to the nitrogen in the atmosphere. Because</p> <p>18 not only is that bad for the bay, but that's</p> <p>19 one of the smog formers.</p> <p>20 So that is why, under the Clean Air</p> <p>21 Act, we're also trying to control nitrogen.</p>

1 And methane is a greenhouse gas so it has  
2 nothing to do with the bay.  
3 So bottom line is biologically,  
4 biologically active forms in a wastewater  
5 treatment plant are converted into  
6 biologically inactive, harmless form. And  
7 that's the whole purpose of that processing,  
8 to take a chemical that's bad in excess and  
9 convert it to something that doesn't have an  
10 impact.  
11 Thank you all for taking the time to  
12 participate in this process.  
13 (Proceedings concluded at 8:42 p.m.)

1 STATE OF MARYLAND  
2 HOWARD COUNTY  
3 I, Dawn Michele Hyde, a Notary  
4 Public of the State of Maryland, Howard  
5 County, do hereby certify that the  
6 above-captioned proceeding took place before  
7 me at the time and place herein set out.  
8 I further certify that the  
9 proceeding was recorded stenographically by me  
10 and this transcript is a true record of the  
11 proceedings.  
12 I further certify that I am not of  
13 counsel to any of the parties, nor an employee  
14 of counsel, nor related to any of the parties,  
15 nor in any way interested in the outcome of  
16 the action.  
17 As witness my hand and seal this 1st  
18 day of March, 2012.  
19  
20 Dawn M. Hyde  
21 My Commission Expires 10/7/2015