

**MEETING OF THE NORTH CAROLINA
ENVIRONMENTAL MANAGEMENT COMMISSION**

**Raleigh, North Carolina
July 14, 2011
Minutes**

The North Carolina Environmental Management Commission met in the Ground Floor Hearing Room of the Archdale Building, 512 North Salisbury Street, Raleigh, North Carolina. Chairman, Stephen T. Smith presided. The following persons attended for all or part of the meeting:

COMMISSION MEMBERS:

Christopher J. Ayers	Tom Ellis	Dr. David H. Moreau	J. Dickson Phillips III
Donnie Brewer	William L. Hall	Jeffrey V. Morse	Clyde "Butch" Smith, Jr.
Marvin S. Cavanaugh, Sr.	Steve P. Keen	Dr. Charles H. Peterson	Stephen Smith
Thomas F. Cecich	Dr. Ernest W. Larkin	Mayor Darryl D. Moss	Steve W. Tedder
Marion E. Deerhake	Kevin Martin	Dr. David B. Peden	

DIVISION OF WATER QUALITY:

Bradley Bennett	Alan Clark	Elizabeth Kountis	Jay Sauber
Janice Bownes	Nora Deamer	Matt Matthews	Coleen Sullins
Ted Bush	Bethany Georgoulis	Sandra Moore	Lois Thomas
Kevin Bowden	Deborah Gore	Diane Reid	Julie Ventaloro
Connie Brower	John Huisman	Jon Risgaard	Chuck Wakild
Amy Chapman	Steve Kaasa	Jason Robinson	

DIVISION OF AIR QUALITY:

Sheila Holman	Michael Abraczinskas
Joelle Burleson	Angela Terry
Michael Petratjic	

DIVISION OF WASTE MANAGEMENT:

Ruth Strauss
Debra Watts
Betty Gatano
Linda Smith

DIVISION OF WATER RESOURCES:

Tom Reeder
Tom Fransen
Sarah Young

ATTORNEY GENERAL'S OFFICE:

Frank Crawley
Don Evans
Jane Oliver
Kathryn Jones

I. Preliminary Matters

Chairman Smith called the July 14, 2011 meeting to order at 9:15 a.m. He then read the Ethics General Statute § 138A-15, which mandates that the Chairman inquire as to whether any member knows of any known conflict of interest or appearance of conflict with respect to matters before the Commission. Commission members were asked if they knew of any conflict of interest or appearance of a conflict to please so state at this time.

Swearing-in Ceremony: Secretary of State Elaine Marshall swore in the new members that were appointed to the Environmental Management Commission.

Chairman Smith: Thank you Secretary Marshall. We appreciate your presence and welcome new members. We all look forward to working with you. Let me begin by asking if any person knows of a conflict of interest of any of the matters that we have on our agenda today or an appearance of conflict. If you know of such let us know at this time or if it becomes apparent to you as the meeting unfolds let us know that at the time that you realize it.

Christopher Ayers: I will not participating in agenda item 11-29 and I would like that noted in the record.

Ms. Deerhake: On the same case I do not see that I have a conflict, but just for the purpose of this disclosure I have a partial of land that drains just south beyond the Bluit Falls.

Chairman Smith: Thank you. I think that everybody heard this announcement on yesterday but let me say that this meeting is being streamed on the internet. We are in the process of working out the technical kinks on that. But one thing that I have been told is that we need to be sensitive to our microphone use. They are hot mikes and when you say something that you want to be heard please use your microphones. If you say something that you do not want to be heard you need to get away from your microphone. The third thing is the best zone for speaking into these microphones for the streaming is about three, four or five inches away. Let's all endeavor to help each other out in remembering that including me.

I have several agenda changes. The first is that I would like for us to consider passing a resolution or a series of five resolutions thanking and commending the five members who have just finished their terms of office. That's Ms. Bailey, Mr. Crowe, Mr. Curry, Mr. Percival and Mr. Westall. If you all are so inclined to pass resolutions thanking and commending them, I will prepare those resolutions, sign them, have them printed and sent out to them. If that is agreeable to you could I have a motion?

Motion (Mayor Moss): A motion was made by Mayor Moss and seconded by Dr. Moreau. There was no discussion and the motion passed.

The agenda changes we have for today are moving item number seven, which is the Hearing Officer's Report on the proposed rules for monitoring at animal feeding operations up to item number three. Dr. Peden has to get back to Chapel Hill to have a budget meeting with his Dean and that's important. Item number five, the consolidated buffer rules and mitigation rules for

reasons that we'll explain when we come to that, the Water Quality Committee did not send that on to the EMC yet. So that will not be an action item, although we will hear an update on its status. Let's move to what's on the agenda.

We are going to hold item number four for now which is consideration of proposed changes to present requirement for party petitioning for rulemaking, and we may take that up later in the morning. We will move into our action items.

II. Action Items

11-22 Hearing Officer's Report on Amendments to Ambient Standards for Nitrogen Dioxide (NO₂) and Ambient Standards for Sulfur Dioxides (SO₂)

Summary (Mayor Moss): The Department of Environment and Natural Resources, Division of Air Quality held a public hearing on May 4, 2011 at 6:30 p.m. at DENR. The hearing considered amendments to the state ambient air quality standards rules to incorporate the revised national ambient quality standards for nitrogen dioxide and sulfur dioxide. Incorporation of the NAAQS into the state standard is one of the first steps of implementation of the revised NAAQS. Separate from the hearing the Division of Air Quality has been taking comments on another early step in the implementation process for SO₂ which is the development of the state recommendations for attainment and nonattainment. That comment period on the draft recommendation closed on April 30, 2011. Public hearing was held according to North Carolina Administrative Procedures Act and public notice for the hearing was advertised in the North Carolina Register, and five newspapers in the state. Notices were sent to those on the official DAQ mailing list. I will now ask Joelle Burleson who is the EIT rules development branch supervisor with DENR to provide an overview of the revised standards.

Joelle Burleson: The rules that were subject of this hearing were 15A NCAC 02D .0402 sulfur oxides and 15A NCAC 02D .0407. This rulemaking process began last year. We experienced a brief delay as we worked in the Executive Order 70 requirements last fall. Last year in June EPA strengthened the primary NAAQS for sulfur dioxide by establishing a new one hour standard at a level of 75 ppb. EPA based this new standard on their evaluation of scientific information regarding the risks posed by breathing SO₂ that indicated the new one hour standard will protect public health. By reducing people's exposure to high short term, which were considered five minutes to twenty-four hour, exposures to concentrations of SO₂. EPA also revoked two existing primary standards of 140 ppb evaluated over twenty four hours and 30 ppb evaluated over an entire year because they did not feel that they would provide additional health protection given the new one hour standard. The existing twenty four hour and annual standards remain in effect until one year after the effective date of initial designations under Section 107(d) of the Clean Air Act. Under 15A NCAC 02D .0407 nitrogen dioxide EPA strengthened the NAAQS for nitrogen dioxide on January 22, 2010. EPA set a new one hour NO₂ standard at the level of 100 ppb and also set a new form for the standard. That form for the one hour NO₂ standard is a three year average of the 98th percentile of the annual distribution of daily maximum 1-hour average concentrations. EPA also retained a current annual average of NO₂ standard of 53 ppb. No one commented at the hearing and the only comment received was from

a letter from US EPA Region 4 stating that they had completed review of the rules and had no comments at this time. The hearing record comment period closed on May 31st.

Chairman Smith: Any questions of Ms. Burleson?

Motion (Mayor Moss): I make a motion that we adopt the report. Mr. Tedder seconded.

Chairman Smith: No discussion and the motion passed. Thank you Ms. Burleson and thank you Mayor Moss for serving as a hearing officer.

We can go back to preliminary matters item number three, that is consideration of a proposed change to the present requirements for a party petitioning for rulemaking. As you all know Chapter 15A of the North Carolina Administrative Code, Section 2I 0500 and the following sections deal with the petition for rulemaking by which a petition can be filed to require us to consider undertaking a piece of rulemaking. Section .0501 is the section that deals with the form and contents of that petition. What we are asking for is that .0501A be amended so that it reads, “Any person wishing to requesting the adoption amendment or repeal of a rule of the Environmental Management Commission shall make, it says his request in a petition addressed to the director of the appropriate Division of the Department of Environment and Natural Resources, and a copy should be sent to the recording Clerk of the Commission.” Our request is that be modified and amended so that it reads, “and a copy in an electronic or digital format should also be sent to the recording Clerk of the Commission.” We did not think that this was a sufficient change to require a meeting of the Steering Committee. So we bring it to you and ask you to consider whether that’s acceptable to you and if so, I would like to hear a motion.

Dr. Moreau: made a motion to accept the change. Steve Tedder seconded.

Chairman Smith: Dr. Moreau would you consider an amendment to your motion to strike Subsection 9C which requires that when the petition and supporting documents exceed ten pages in length 20 copies of the whole petition and any attachments shall be submitted. So that the petitioner is no longer required to produce 20 paper copies but only a digital copy. Would you accept an amendment to your motion and Mr. Tedder? Thank you. Is there any discussion? The motion passed. Thank you Mr. Crawley for taking care of that.

11-23 Request Approval of the Final Draft of the French Broad River Basin Plan

Chairman Smith: Every five years we review and approve a basinwide plan for each river basin in North Carolina. Those basinwide plans assess the health of that water body, compare it to previous reports, how the water body has changed and set out action items for how to continue to work for the protection and preservation of the water quality of that river basin. This is the first one of these that you all will have heard and this deals with the French Broad River.

Paul Clark: I am here to request that the French Broad River Basin water quality plan be approved by the EMC. The plan has one chapter for each of the three subbasins within their French Broad river basin. It has seven information chapters. (mr. Clark presented an overview of each chapter of the proposed basinwide plan.)

Chairman Smith: Thank you Mr. Clark. Any questions?

Ms. Deerhake: I was interested to hear about the North Toe and the ANC TMDL. If my memory serves me correctly that may be the first TMDL in this state that is directly linked to atmospheric deposition.

Paul Clark: Oh, you're referring to the Tennessee TMDL.

Ms. Deerhake: It's the Tennessee TMDL?

Paul Clark: I'm sorry. It's the Tennessee TMDL.

Ms. Deerhake: Ok, then we don't have one in North Carolina. I would be interested in seeing how that was designed and implemented because a set of fine deposition will continue to be a problem for the country, the eastern half of the U.S., the proposed nitrogen oxide standards are coming out this summer for secondary effects or secondary standards, I guess you can call them, are focused on a set of fine deposition and ANC is the parameter that they are focusing on.

Paul Clark: This is off to a good start. The fact that the National Park Service has written the implementation plan and the fact that there are several different federal agencies working together as well as at least two states, Tennessee and North Carolina. I will be honest. I don't know the details associated with that, the Tennessee TMDL.

Ms. Deerhake: Thank you.

Steve Tedder: You're talking about the percent of the monitoring waters, about 25%? I just want to recall. I know this is after about twenty years now. But that percent being somewhat higher in past years can you explain what's changed to make it appear that we are monitoring less waters?

Paul Clark: I would say it is probably a resource issue and if someone is here from monitoring they may be able to better answer that. So your question is why is it good that we monitoring fewer waters?

Steve Tedder: I think the answer is that you're only going so far upstream from a monitored site for various reasons.

Chairman Smith: I think Ms. Sullins may be able to answer and someone just stood up.

Coleen Sullins: I would certainly ask Jay Sauber from the Environmental Sciences Section to come speak to this issue. I also wanted to just briefly note that over the last three years, I believe the total number of staff lost within the division is on the order of 75 positions. So we've had a serious impact across the program and pretty significant impact in the monitoring world. But I'd like Jay to speak to the specifics of the program.

Jay Sauber: Thank you Coleen and members of the Commission. Generally speaking Mr. Tedder is somewhat correct. That is in our ambient monitoring activities in the Asheville Regional Office area they remain fairly consistent over the past few decades. The other monitoring activities in the region have been impacted by the staff reductions that we have had up there, and you've seen an increase in the monitoring activities in our designated problem areas as well. I think the question Mr. Tedder is getting to is how we interpret that data and how we apply that data up throughout the basin. That indeed has changed over the years and changed over time, and the interpretations of how that data is applied to distances upstream above those monitoring sites, the distances downstream of those monitoring sites has indeed varied over time.

Chairman Smith: Other questions?

Steve Tedder: Again this is more on the impaired waters. Part of the document which I know is an integral part to all the basin plans is that this might not be the place or maybe later on the entire 303d process, I'm not sure I've really seen it come before the Commission before that along with subsequent TMDLs, that type of information. But that is a use of the standards that are adopted by the Commission and I think it would be a very informative item because it directly ties to everyone of these plans that you will bring forward in the future. So I would just kind of make that a request or a note that I think that is very important.

Chairman Smith: Is your request that we have a presentation that gives us an overview of the 303d process?

Steve Tedder: Correct.

Chairman Smith: I think that's a good idea. Ms. Sullins would you make a note of that and we will move towards that in September.

Coleen Sullins: I will make a note of that. My recommendation is that we wait on that particular presentation because we're in the process of developing the current 303d list or the next version of the 303d list. I think the appropriate time to bring that forward would be when we have information on what the most current data is showing us and I'm going to guess that's the March EMC meeting of next year, but I need to consult with staff. I think it would be very instructive to do it at that point and time when we're in the midst of the next version of this 303d list.

Chairman Smith: Well maybe both you and I can talk about that. Have a short presentation on 303d generally and then a more specific update in March. But I think it's a good suggestion Mr. Tedder.

Jeff Morse: I'm not sure I follow what Steve was asking for. I think I understand what you were asking for but my question goes further. Are we as a Commission going to be taking a more active role as we go through these basinwide plans in establishing the criteria of identifying 303d list? Are we going to be more involved in evaluating the information that you're developing prior to a declaration that it goes on a 303d list? Is that what you're proposing or asking for us to do?

Steve Tedder: Not necessarily. But I think we should be aware, very aware of the 303d process and the methodology that's utilized to put it on the list. Because it does have implications for not only wastewater treatment plant limits but stormwater, TMDLs, etc. So that ties directly. Yea I think that we ought to be very aware of what's on that list because it's fairly important as far as the daily operations of the program.

Jeff Morse: I get the follow up on that. Does that mean that the Commission, itself establish the 303d list? Do we vote on that 303d list?

Chairman Smith: I don't think so.

Coleen Sullins: No the Commission does not.

Jeff Morse: That goes back to my original question. Is that something that the Commission needs to be involved with as we review as the staff reviews that we, as a Commission put our stamp of approval on the process evaluation before a river gets on the 303d list?

Chairman Smith: The immediate response to what that question is exactly what Mr. Tedder was suggesting that we have a presentation in September that gives us an overview of the 303d process, how that's currently being done. At that time we can have the most current information recognizing that it's going to be changed and updated in March. Then out of that presentation we can ask questions and take whatever action we think is appropriate that we're in power to take.

Jeff Morse: Thank you sir.

Dr. Peterson: On behalf of the Water Quality Committee which approved that this come before the EMC today without dissent I make the motion that we approve the present French Broad Basinwide Plan. Mr. Phillips seconded.

Chairman Smith: Ms. Sullins would you give us a one minute statement of what approval of a river basin plan entails. It's not rulemaking. For the new members who may not know as a procedural matter or process matter what impacts our approval of the basin plan could have?

Coleen Sullins: Certainly I would be happy to do that. The approval of the basin plan gives direction to staff on a number of issues. It identifies what the issues are within that particular basin, the types of things that we think we ought to be working on in that particular basin with a variety of local partners, etc. It helps direct our work in terms of the things that we are looking to and know that we need to address either in the addressing of an impaired water and working with local organizations on management strategies to address those issues, or potentially bringing rulemaking activity before the Commission to reclassify waters for protection of their high quality water types of things. So it gives us kind of an outline, if you will, of things that we will be doing in that particular basin and things that you may see coming back before you if there is a need for rulemaking specifically to address those issues.

Chairman Smith: Thank you. No further discussion and the motion passed. Thank you Mr. Clark. We going to now move #7 up.

11-28 Hearing Officers Report of the Proposed Rules for Monitoring at Animal Feeding Operations

Chairman Smith: By way of history you all remember, are you going to do a little history Mr. Larick? Then I will stand aside.

Summary (Keith Larick): I am here to brief you here this morning on the Hearing Officer's report and the process for proposed monitoring rules at animal operations. Getting into the timeline of this whole process this was started by rulemaking petitions that were filed in 2007 by environmental groups. They asked the EMC to require rulemaking for surface and groundwater monitoring at animal operations. The petition was approved by the EMC in 2008 but at the same time the EMC directed us to hold some stakeholder meetings and make tweaks to the rule before we went to the public comment period. We did that and the public comment period was in the summer of 2009. I think that it is safe to say that the hearings were very well attended and that there was quite a bit of interest. As we reviewed the comments the hearing officers were (and they will speak to this later) in agreement that it might be nice to have a little bit more information on this topic before rules move forward. Initially it was thought that we just wouldn't have the level of funding needed to do some type of study. So kind of along that assumption the hearing officers made some suggested changes to the rules and at the same time we were directed to go ahead and pursue the possibility of funding for a study that would answer some of the same questions as the monitoring rules themselves. Those were kind of two parallel processes moving at the same time. The rule was renoticed with those suggested changes in the summer of 2010 while we were pursuing the possibility of funding for a study. After back and forth with the U. S. Geological survey we were able to finalize a contract to perform a study with them in May of this year. The study plan that we have developed with USGS is attached in the hearing officer's report as Appendix A.

The hearing officers and you will hear this from them feel that more information is going to be needed prior to implementation of rules. Then we get to the source of that more information, the study that DWQ will be performing in conjunction with USGS. The goal of this study will be to collect information similar to that would be collected through the monitoring rules. Samples from individual farms going upstream and downstream, if funds allow there will also be some samples reflecting watershed contributions from animal operations comparing that maybe, to watersheds with fewer or no animal operations. The idea will be to examine the contributions from farms that have different risk factors if you want to call them that. The size of the farm, does that make a difference. The PAN balance which is essentially the acreage of spray fields that the farm has compared to how much they actually need to dispose of the waste. Presence of drain tiles and the age of the farm are a few of the factors that we're going to try to look at in the study. The effective date of the study was July 1st so it is technically under way although we're in the very beginning stages. Just to kind of crunch in the dataset to try and determine that the sampling universe to the study.

Then we come back with the recommendation. I'll be glad to turn it over to Dr. Peden at this point and he can go into that.

Dr. Peden: First of all before I give the recommendation or make a motion I'd like to acknowledge that Mr. Larick, Ms. Blanton and Mr. Bush for all their tireless efforts on this issue. The one thing I did learn, these were vigorously attended meetings. So before I make a motion I will just briefly reflect on the thought process of the three Commissioners that were hearing officers who were myself, Commissioner Ellis and Mayor Moss. We went through this, we heard the comments and we went through the proposed rules. Had there not been the opportunity to acquire more data you would not have heard a unanimous opinion as to whether we should adopt the rules or not. You will hear a unanimous opinion and I will make the motion in a minute that we should not adopt these rules and the rationale being that we should actually have more information and understand what the best monitoring systems would be. There were any number of, I won't completely recapitulate the summary that Mr. Larick offered but there were a number of issues that emerged, including: would the data be valid in identifying farms that were at risk, identifying what remediations needed to be made. Dealing with whether events that would occur around the time of sampling, there were a number of issues that we felt that a pilot data would be useful in sorting that out. At the time we noted whether it would be nice to have a pilot data none of us were at all convinced that such data would be forthcoming and we were prepared to make recommendations or split recommendations at that time. Against that background and given that there will be an opportunity to understand this a bit better while we disagreed on our opinion of the rules we did agree that not passing now pending having better understanding of this process would be worthwhile. So I move that we decline to pass the monitoring rules at this time. Mayor Moss seconded.

Chairman Smith: Discussion? I'll start by saying a couple of things. It would be hard to commend Mr. Larick and Mr. Bush and Dr. Peden, Mayor Moss and Mr. Ellis enough for the work that has gone into this over the last three years which is a long time. I attended two of the public hearings and to say that they were vigorously attended is probably as good a description of it as any. There's a lot of interest, a lot of activity and a lot of very strongly felt positions by the full spectrum that you might expect to be looking at the question of surface water monitoring for CAFOs generally. I think the resolution that the hearing officers have come to, that is, the study rather than attempting to implement the rule package as it's presently drafted, is likely to bring us, probably to bring us more and better data sooner. I think we will get more data and better data and I think we will receive it sooner. So I feel like this is a good step in a long and difficult process. It is frustrating that it has taken as long as it has but that's not anybody's fault. It's just the nature of this situation. Having said that comments anyone?

Ms. Deerhake: I just have several clarifying questions to help me understand the study. First of all who is going to be responsible for this study, DENR or the USGS? Who's actually conducting the sampling and is it an independent USGS analysis?

Keith Larick: The way the study is set up is USGS essentially is serving as a contractor to DENR. So the sample collection will be performed by USGS. They will also be crunching the numbers of the data that's collected.

Ms. Deerhake: As far as the sample of farms to be monitored how are they going to go about recruiting these farms to conduct the sampling? Are they assured that they can get a representative sampler that will volunteer to do this?

Keith Larick: That's an issue that has to be resolved obviously. The idea is hopefully by having USGS on the farm doing the samples they will be viewed as more of a neutral party than the division would perhaps. The idea is to develop a list of farms that are possibilities and then go through that list as we can get on each farm.

Ms. Deerhake: I hope that we'll be successful. I don't know what the incentives are for a farm to volunteer unlike the National Consent Agreement for the air quality study where there were incentives. Good luck with that. The USGS report uses the term CAFO but I believe we've been using an AFO. Which one is it?

Keith Larick: From my perspective it's AFO. Any farm that is in the coastal plain that has a permit from the division would be possibly chosen regardless of size. Because that's one of the factors that we're interested in.

Ms. Deerhake: And is it staffed only by USGS or do they have subcontractors or consultants working for them?

Keith Larick: My understanding is that they'll likely have to hire some temporary help to perform the sampling.

Ms. Deerhake: For example no academic researchers are participating in this?

Keith Larick: Probably not. Not performing the sampling specifically.

Ms. Deerhake: Ok. I have two other quick questions. One is actually a recommendation or they are both recommendations. I think that it would be beneficial to have one more attribute in there and that is the method of land application, to understand what method is being used, the companies that monitor data. Last of all I would recommend to the Commission that we have a report on the sampling plan after year one so we can see what the sampling design looks like.

Keith Larick: That's something that we could certainly do.

Ms. Deerhake: Thank you.

Steve Tedder: I definitely support the recommendation of the hearing officers. I think that's a wise move on this and I appreciate the comments. This is more of just a note. If you go through the documentation and it kind of ties back to something I mentioned earlier on the basin plans. I think it was referenced several times in some of the documents supporting this that animal operations cause impaired waters. I don't know how much validity for a specific one, whether it was there or whether it was just something mentioned because of so many in a certain basin, but it kind of shows you how a non regulatory document can end up in a petition for rulemaking. It does have a certain possibility even though it's kind of what appears to be an operative type document, but it has a lot of ramifications. I'm just pointing out that sometimes your suppositions whether it's that or impervious pavement cause water quality problems. Take your

pick. Something that general can come back and I like to see it even in those documents supported if we're going to make the statement. Just a comment.

Dr. Larkin: I do share the opinion that this study is necessary. I really congratulate you for getting all underway, actually making it happen. I know that was not an easy task. It will be as you carry it out. I also share the frustration that Mr. Smith just mentioned and the amount of time this is taking. As a scientist I know that many studies lead to more studies and that we can study things while they burn, and I'm really concerned about that piece. It seems to me reasonable course is to do both in a parallel fashion. So I'm not sure that I agree to put off the monitoring rules for another three plus years. I presume they will have to go through. I mean how many times we are doing for stakeholders and public hearings with these rules just for monitoring. That's sounds like a five year or so delay. I just don't think it's warranted personally. There are times when we have to act without perfect data. I'm not sure we'll ever have perfect data. So I'm concerned about stopping this process for several years to find out what happens and the kind of detail that scientists like to give us.

Chairman Smith: I will point out that this rule package under the provisions of the Administrative Procedures Act will die a natural death later this month if it's not acted on one way or another. We have a year from the close of the public comment period and that closed sometime last summer.

Keith Larick: Last August.

Chairman Smith: Sometime in August this rule package will end. So if three or four years down the road the study results are brought back to us, which they will be, if we then want to do something we would need to undertake rulemaking from the beginning. We could work off of this work but it would not be just to revive this rule package. So it's a good point.

Dr. Larkin: In addition your last comment reminded me of another thing I was going to ask for. That is Marion had just asked for a report next year. I think maybe that would be nice if they were annual reports and that we should feel free to take action before the entire three year project is done based on those annual reports, whatever that action may be.

Jeff Morse: One of the objections raised by the potential stakeholders in this was that their current permits for farm operations are already monitored or they're already under permit review. My question is in the farming industry and the animal feed industry, are there any specific monitoring of stormwater or drainage, any water sampling that these rules are addressing?

Keith Larick: Presently the permits who set up have to perform visual observations but there is no routine stormwater, surface water sampling. They have to do a waste analysis of what they apply.

Jeff Morse: It is my understanding too, are farming operations exempt from stormwater rules?

Keith Larick: Yes.

Tom Ellis: Unfortunately you weren't here when we had the Valentine's Day and the Waste Party where we got intensive training in what is required on an exempted type operation so to speak. The farms have to prepare a plan which shows the amount of waste that produced, how and where it's going to be applied. You have inspections by both DWQ and the Division of Soil and Water to make sure that the physical operations are in place. Any time there's a spill of materials it has to be reported. There's a whole variety of things that are involved in this. When we took a look at the data that would be required from the monitoring rules our concern was that we get a lot of data but we couldn't interpret it. If you take a look back with the USGS study slide that Keith put together the third one was to examine the contributions from farms with identified risk factors, presence of drain tiles, pan balance, age of farm, this sort of thing. These are variables that we need to be able to take a look at. It's not just all operations. It may be some practice, as Marion pointed out we need to take a look at how the material is actually applied to the land to see if there's a problem, what might be that variable that cause a problem on one farm versus another. We did not see that the original monitoring rules could give us any information whatsoever on identifying what might need to be changed. We could only say something's going on, on a farm, maybe. So this is why we wanted to get details that when it's all done we can say if farms have this particular variable on it, then we need to focus on not only the science but with the Division of Soil and Water to put practices to correct that action. Because we are not into just fining people; we want to solve the problem to make water quality offsite better. So this is the reasoning behind how we go around looking at the CAFO operations.

Jeff Morse: I support. I'm glad to hear your comments and I agree with Dr. Larkin. As long as this is part of the process eventually we know that we're going to have to monitor because that's the true source of information as to whether or not it is impeding our streams. So I believe that you've got to have that data to make good rules as long as it's not delayed.

Tom Ellis: At any point and time that information comes forward showing a problem or a way to correct the problem, nothing, prevents this Commission from taking action and begin rulemaking at that point and time. So with the annual reports I think that we will get a chance to review what comes up.

Dr. Peterson: I have a concern about the methodology that I wanted to ask Dr. Peden and others about. That is the mechanism of delivery of the waste into surface waters is presumably related to rainfall and somewhat related to rainfall history as the vehicle of transport of the waste that has been applied. Indeed some of the major concerns that have been expressed by the public about these farms were: spraying during times when the ground was very moist, and spraying relative to storms that come along because the freeboard on the waste lagoons was rising as well. My question is I didn't hear the methodology but of course I didn't get into the weeds either issues about whether the monitoring which for any given farm were only three times a year, whether there are going to be records made of things like the rainfall prior to the monitoring, or whether there's any design envisioned except seasonal about how the data is chosen relative to rainfall events and the immediate history of rainfall events.

Keith Larick: I would say rainfall around the sampling is something that USGS will be tracking. There's a couple of ways. You can use national weather service data but in addition farms are required to keep rainfall records. So any of that would be onsite rainfall.

Dr. Peterson: So that will be a factor that can be used in interpreting the information that is collected. Because that's the kind of variable that might be a huge noise from one farm or one date to another. If it's explicable by rainfall event, then you'll have a better ability to see whether tiles, for example, are a problem source or not because then you can factor out the sort of variability that comes with the rainfall function.

Ms. Deerhake: I would just say that if we follow through my request to review the sampling plan that would give us an opportunity to check that.

Mr. Cecich: I listened to the discussion. I think the hearing officers' proposal is a reasonable compromise, however, given the budget woes it is only a reasonable compromise if the study gets completed in a manner to which it's proposed. So given the budget challenges both the federal and state level, have these things been allocated both by the state and federal agencies and will indeed be completed during the proposed timeframe?

Keith Larick: If the state funds have been allocated and I'm looking at my director, the federal funds have been mostly allocated. Quite frankly, there is a small potential that funding towards the end of the study could be reduced under the USGS side. It's just one of those things where we will just have to wait and see. But at least I believe the first two years of the study that money from USGS is theirs to do what they wish with.

Chairman Smith: And the contract has been signed?

Keith Larick: It has, yes.

Chairman Smith: I think that everything that has been done, everything that could be done to tie down the money has been done is my understanding.

Dr. Moreau: I would like to support Ms. Deerhake's request for review of the sampling plan. Three samples a year of catching runoff doesn't, on the surface of things appear to be a very efficient expenditure of funds. These are highly variable events and unless you catch them doing those events it's quite questionable what it is you're going to conclude from the data. That's not to say that there are fundamental flaws there because I haven't seen the sampling, plan, but I would suggest that come under review by a special committee or come back to water quality or something that we have some assurance that there is a reasonable expectation of finding useful data.

Dr. Peden: You just said to sum up some of my thoughts to me. Everything that we've heard expands on exactly the discussions we had on several Friday mornings that went into the afternoon to address this. I actually have one question, very technical question, procedural question. The request for annual review of the data is, do I need to make that part of the motion that I made.

Chairman Smith: You do not. I've made a note of that and at least for the time being I have some influence over the agenda.

Dr. Peden: It's not much more for me to say other than the one person that I didn't comment on was your reference in this whole matter as well, and I think to be frank it's very likely that we wouldn't have an option to even discuss the present concept study had you not worked as hard as you have. So I wanted to make that note as well.

Chairman Smith: Other comments or discussion? No discussion. All in favor say aye. Opposed say no. Dr. Larkin voted no. The motion passed.

Now I want to commend the hearing officers again and Mr. Larick and Mr. Bush. Also I want to thank the USGS Geological Service for stepping up with 50% of the funding which pretty much came out of the blue for me. So that is commendable. They learned about what was being considered here and become interested in it and had stayed true to their word. Thank you Mr. Larick.

11-24 Request Approval of Proposed Technical Revisions to the Jordan Nutrient Rules

Jason Robinson: This was presented at the May Water Quality Committee meeting who approved coming to the full Commission today. Since the 13 rules Jordan rules became effective in August 2009, there have been some technical revisions that have come to light and have been discovered. The package that you have includes copies of the six effective rules as well as Attachment A which has a list of all the technical revisions. As you can see from the list it's mostly in light of the references incorrect item numbers or rule numbers. We had met with RRC staff to discuss all these technical revisions and they've agreed that they can be considered technical revisions. At the Water Quality Committee meeting I went through a few of the specifics. I will not do that today but will answer any questions that you have today.

For the timeline if the Commission does approve these today we will be filing these with the RRC later this month. They will be presented at their August meeting and if approved there, they will become effective September 1st since technical revisions do not required the whole hearing process. I also would like to mention that we will be coming forward to the Commission at a later date to present revisions that are required by 2009 Session Law. I just wanted to make you aware of that. We are doing these in separate packages just because their procedures will be different as far as the rulemaking process. So for now we are just requesting your approval of the technical revisions to the 6 of the 13 Jordan rules.

Dr. Peterson: The Water Quality Committee did review this and found this appropriate and boring. I wanted to commend staff for approaching the RRC in advance to confirm that these didn't violate any principles that they held dear. With the Water Quality Committee's vote is backing, I make the motion that we approve these revisions. Mr. Brewer seconded.

Jeff Morse: Were there any objections from any of the stakeholders to these revisions?

Jason Robinson: They were not put out to the public comment because of the technical revisions and we are making process to that. We'll be able to get it to RRC, of course and I am

sure they will be made aware of it there. No we have not heard any objections to any of these technical revisions.

Jeff Morse: Were they aware of it and were they involved in any of the feedback even though it's not part of the public hearing process? Was there any communications between the stakeholders and these revisions?

Jason Robinson: Other than just being on the Water Quality Committee agenda and the EMC.

Kevin Martin: The only thing to me that was substantial was inadvertently there was an omission that there's an allowance for draining ponds as an exemption that's in all the other rules. It was in the rules the EMC approved but somehow in formatting it was omitted when it went to RRC, so that was put back in. But other than that it is as Dr. Peterson says it's commas here but mis-references there, but nothing substantial.

Chairman Smith: Any other discussion? No discussion and the motion passed. Thank you Mr. Robinson.

11-25 Request for Approval of the Proposed Reclassification of Dan River Segments in Caswell County (Roanoke River Basin) to Class WS-IV and WS-IV CA

Elizabeth Kountis: In the recent past, the Water Quality Committee and the Commission approved the request to proceed with rule-making for the proposed Water Supply Four Critical Area and Protected Area reclassification of Dan River segments in Caswell County within the Roanoke River Basin.

Pease Associates, Inc., on behalf of the City of Roxboro, requested the proposed reclassification in order to allow a new intake structure in the river. The new intake is initially to serve Roxboro, as well as the Towns of Yanceyville and Milton, with an emergency potable water supply source and eventually a permanent potable water supply source when needed.

The Division of Water Resources supports the proposed reclassification, and staff from NC Division of Environmental Health has stated that the subject waters can be treated for public water supply use. Environmental Assessment, or EA, for this project received a Finding of No Significant Impact, or FNSI, and DWQ studies show the subject waters meet Water Supply Four water standards and criteria.

If these waters are reclassified, Caswell County, which is the only local government with jurisdiction in the proposed water supply watershed, would be required to modify its water supply watershed protection ordinance within 270 days of the reclassification's effective date. Caswell County has agreed to do so. In addition, if these waters are reclassified, restrictions for new development and new wastewater discharges will apply in the proposed area. In that area, there are currently no discharges, and there are not any known planned discharges and developments that would be impacted by the proposal.

Chairman Smith: Questions or discussion?

Dr. Peterson: On behalf of the Water Quality Committee who heard this issue in recommending that it go out to hearing and the proceedings go forward I think the issues that we had concern

about were raised and addressed. We were concerned about Virginia and their need to act responsibly. We thought that it was appropriate for these local governments to plan for their future needs for drinking. Noted that desalinization didn't seem a viable choice given the geography of these and consequently I moved that we accept the hearing officer's recommendation and approve this. Mr. Tedder seconded.

We move to agenda item 11-26. This is what's listed as a request permission to proceed to public hearing with the proposed rules to consolidate the Neuse, Tar-Pamlico, Jordan and Randleman buffer rules and the proposed consolidated buffer mitigation. Although it's listed as an action item it's not going to be dealt with as an action item. The Water Quality Committee considered this yesterday. Dr. Peterson, are you going to give a report on that?

11-26 Request Permission to Proceed to Public Hearing with Proposed Rules to Consolidate the Neuse, Tar-Pamlico, Jordan and Randleman Riparian Areas Buffer Rules that Compiles with SL 2011-394 and the Proposed Consolidated Buffer Mitigation and Alternative (Flexible) Mitigation Options

Summary (Dr. Peterson): I will. We looked at this issue. This has been with us quite some time and will continue to be. A number of stakeholder groups had submitted comments and concerns. Many of these dealt with legal considerations that arose from recent actions of the General Assembly, some of which were not and as of today are not yet complete in the context of whether vetoes by the Governor would be overridden by both bodies of the General Assembly or not. Consequently, we thought it prudent to await a proper determination of issues that were upon us in moving forward with this particular item. Mr. Jim Gulick was kind enough, in the Attorney General's Office, to on a very short notice prepare us a summary of the legal issues, changes, what that means to our authorities and presented that to us verbally. I, for one kind of needed a cliff notes version but our chair, I think could do a better job of encapsulating what wisdom he shared and how we will move ahead to take guidance from that.

Chairman Smith: So with that we're not going to take any action on number 11-26 to consolidate buffers or the mitigation rules, at least not at this time. So then we move to number 11-27.

11-27 Petition for Rulemaking to Amend the Groundwater Quality Standard for 1, 1-Dichloroethylene

Chairman Smith: This is a petition for rulemaking that the Groundwater Committee heard and before I turn it over to Mr. Martin. Those of you that have been on the EMC remember and for those of you that just came on, sometimes within the last 6 months we had a petition for rulemaking come before us and there were presentations made to the committee that considered that petition that were not made to the EMC. That caused the full EMC to not have the full level of information that the committee members had. Typically as you know we all have presentations by the various stakeholders in the matters that come before us. As a result of what we've learned from that previous petition the consensus, I think was for future petitions including this one we would rehear the parties presentations before the full Commission, even though they've been heard by the Groundwater Committee. So today we will be hearing presentations by the petitioner represented by Benne Hutson and the attorney here is present, and

by the staff represented by Sandra Moore. Each of them will receive a maximum of fifteen minutes just like before. Mr. Martin is there anything you want to say before we dive in?

Summary (Kevin Martin): I'd just like to say one thing and at the conclusion of the two sides I'd like to add a little bit more about what went on at the Groundwater Committee meeting. But I don't think it is appropriate for me to do that now. I would like to just say I believe it's the Groundwater Committee's opinion that this standard does need to be changed. The scientific stuff of how these are determined is very complex and for those of you who are new, and haven't had to deal with the 2L standards, my suggestion would be not to necessarily focus on the scientific basis of whether this should be changed or not. That was not in dispute with anyone, health services, the petitioner or the committee. But to focus on the other matters of how we go about making that happen is to me the important matter that is before us today. I'll elaborate on that after the sides have the opportunity to give their opinions of how we go about making that happen.

Presentations were made on behalf of Rhodia and the Division of Water Quality). Considerable discussion by Commissioners ensued including questions to and answers by the parties.

Kevin Martin: My motion is a three part motion and it really could have been a one part but I'm trying to comply with anticipation of what this says with us having three alternatives. The first alternative is exactly as proposed by the petitioner and approved by the Groundwater Committee. The second one is staff's recommendation of changing the language in 2L that relates to the lesser of without changing the 7 to 350, so there's a little difference in staff's proposal. Then the third one is staff's proposal on how to change the variance. Part of the public hearing process is based on what we hear coming back we could choose to do any one combination of those and it could be a logical outgrowth of what we hear or we could get new information that causes us to do something similar, but with a little different wording without being a significant change.

Chairman Smith: We have a motion and a second. (A vote was taken by show of hands.) 13 voted in favor and 5 opposed. The motion passed. We have put out for public hearing the change that the petitioner is requesting, changing the number from 7 to 350 and the change that the state has requested in .0202 but not including the change from 7 to 350 since it has already been changed, and the change in the variance statute.

Break for lunch.

11-29 Presentation of Administrative Law Judge's Recommended Decision, City of Rockingham and American Rivers v. NCDENR, DWQ and Progress Energy, 08 EHR 0956, Montgomery County

Administrative Hearings – Contested Cases

Commission counsel noted that the Commission was sitting as the final agency decision-maker in their quasi-judicial role and they had before them the contested case of the City of Rockingham and American Rivers vs. Department of Environment and Natural Resources and

Progress Energy Carolinas, Inc. He advised the Commission that they had been previously provided the official record and exceptions to the ALJ's decision filed by the parties and that the final agency decision was required to be based upon the record. The parties were allowed to present oral arguments to be followed by the Commission's deliberations and decision.

Commissioner Ayers noted a conflict of interest and recused himself from participation in the contested case proceedings. At the conclusion of the parties' presentations, Commissioner Cavanaugh announced his recusal from participation in the deliberations and voting on the final decision.

Richard Roos-Collins, Esq. and Julia F. Youngman, Esq. appeared for Petitioners. Mr. Roos-Collins presented argument for rejecting the decision by the ALJ and adopting the proposed decision submitted by Petitioners as the final agency decision; the position favored by Petitioners would reverse the issuance of the 401 Water Quality Certification for failure to comply with applicable requirements of 15A NCAC 2H .0500, et seq., to protect the designated uses of the Tillery Reach and remand the matter to the Division for further proceedings.

Assistant Attorney General Donald W. Laton and appeared for the Department and William D. Dannelly, Esq. appeared for the Respondent-Intervenor. They argued that the decision by the ALJ should be adopted as the final agency decision, the position favored by both Respondent and Respondent-Intervenor that would affirm the issuance of the 401 Water Quality Certification.

Before beginning deliberations, Mr. Phillips made a motion to admit in evidence Petitioners' exhibits P 20 and P 21 and Respondent-Intervenor's exhibits RI 54 and RI 55, which had been received as offers of proof during the hearing. The motion received a second. The Chairman called for a vote and the motion carried.

After addressing questions to counsel for the parties, a motion was made by Mr. Tedder to adopt the ALJ's decision as the final decision. The motion received a second. Chairman Smith called for discussion or questions from Commission members. The Chairman called for a vote and the motion carried.

This Final Agency Decision concludes that the Respondent Department acted appropriately and in accordance with the law, and did not exceed its authority or jurisdiction, act erroneously, fail to use proper procedure, act arbitrarily or capriciously or fail to act as required by law or rule in issuing the 401 Water Quality Certification. Accordingly, the ALJ's Decision and its findings of fact and conclusions of law are adopted in full and the issuance of the 401 Water Quality Certification to Progress Energy Carolinas, Inc. is UPHELD, affirming the decision and reasoning of Respondent Department in all respects.

(The record in this matter is on file with the Division of Water Quality)

III. Information Items

11-04 Overview of Report “Compensatory Stream and Wetland Mitigation in North Carolina – An Evaluation of Regulatory Success

Chairman Smith: The suggestion has been made that since most members heard this presentation on yesterday at the Water Quality Committee meeting that we forgo repeated this report. Ms. Hill’s presentation is on the Water Quality Committee’s webpage as is the mitigation study itself. If there is a member that would like to hear this presentation either for the first time or again we’ll call it. Otherwise we’ll proceed without hearing it a second time for most of us. Is that agreeable with everybody? It’s a very good presentation and I would encourage you if you haven’t looked at it to take a look at both the presentation and the mitigation study report. Thank you Ms. Hill.

11-05 Update on Mercury Total Maximum Daily Load (TMDL)

Kathy Stecker: Later in the presentation you’ll hear from Laura Boothe with the Division of Air Quality. Many of you will recall that Ms. Sheila Holman, Division of Air Quality Director and I gave the Commission a presentation on mercury last September. We talked about our statewide TMDL and about a regional conference we had attended in Philadelphia about mercury. At that time we said we would come back this year and give you an update. Here’s what we will cover today, some background to put this work in context, a brief update on the TMDL, an update on where we are with the air modeling and we’ll wrap up with some estimated dates for completion of key activities. Mercury is a human concern because it can damage nerve cells in the brain and spinal cord, especially in unborn babies and young children. The North Carolina Department of Health and Human Services has issued a statewide mercury advisory for largemouth bass. They advised that women of child bearing years, pregnant women and children under 15 not eat any largemouth bass caught in North Carolina. They have the same advice for other fish found with high mercury levels in more specific parts of the state. I’ve included a red map from our September presentation but I won’t go over it in detail. It shows that nearly all states have identified mercury in fish as a problem. Let me point out that all of the efforts described here today have the ultimate goal of reducing mercury so that advisories can be lifted when all fish are safe to eat.

Now I will review some air quality requirements. Our state Clean Smokestacks Act requires large reductions in nitrogen oxide and sulfur dioxide emissions. A co-benefit of the NO_x and SO₂ controls is significant reductions in mercury emissions too. Laura will say more about that in a few minutes. Our state mercury rules for electric generators contain several reporting requirements including this one to provide information on a mercury balance, what’s coming in, what we’re contributing and what’s happening to it here. The TMDL will address similar information so I will give some context for that next. Now we’ll move from state requirements for air quality to federal requirements for water quality. Under Section 303(d) of the Clean Water Act states must make lists of water that don’t meet standards and submit them to EPA for approval every two years. Section 303(d) also requires that states develop total maximum daily loads TMDLs for those impaired waters and submit them to EPA for approval. As we heard earlier today it sounds like we’ll be bringing more information about Section 303(d) at future meetings. A TMDL estimates how much of the particular pollutant you can put in the water and

still meet state water quality standards. A TMDL must include information on water point sources like wastewater and any significant nonpoint sources including atmospheric deposition. Speaking of sources other U.S. studies have found that very little of the mercury in surface waters comes from wastewater. Most of it comes from atmospheric deposition. There's a global pool because it can stay up in the air for a long time and go a long way. Coal-fired power plants are the largest sources in this state and in the country. Here is some information from the northeast states regional mercury TMDL. Most of the mercury was estimated to be in that global background. That includes natural and anthropogenic mercury from outside the U. S. and U.S. generated mercury that has been up there for a while. You'll see that they also estimated that there were about equal parts from within the northeast states and from other states. North Carolina has placed its waters on its 303(d) list for mercury based on the statewide fish consumption advisory for largemouth bass issued by the North Carolina Department of Health and Human Services. So to develop the TMDL we're compiling data including fish tissue, wastewater affluent, air emissions and deposition data. We're using air modeling to help quantify sources and then we'll estimate the reductions, needed if any in loading from various sources including water point sources, in-state emissions and out-of-state emissions to reduce mercury levels in fish tissues so that advisories can be lifted. Circling back to the state requirements I mentioned earlier we'll be pretty close to having that mercury balance for North Carolina. Now I will turn it over to Laura Boothe from the Division of Air Quality but I will be back.

Laura Boothe: I am going to talk a little bit about the point source emissions. When we say point source we're talking about air emissions and not the water emissions; what Kathy referred to as non point. This information is based on EPA's 2005 data. If you look at other point sources and the utility generated emission sources, you're accounting for the majority of the mercury that is emitted into the air. When we looked at the emissions we just focused on those that are point sources or those sources that have permits. So in 2003 the electric generating units emitted approximately 2,900 lbs per year of mercury and the other point sources emitted approximately 1,800 lbs per year for a total of 4,700 lbs. In 2009 the reported emissions were 1,331 lbs per year for the electric generating and approximately 774 lbs per year the other point sources. The reason that I say approximately for the other point sources is that some of those sources don't report emissions on an annual basis. They report their emissions every five years. So we used the closest year to 2009 that was available for us to use. So we have total emissions of 2,105. So you can see we have already significantly reduced the emissions of mercury in the air. It's estimated that in 2016 when the boiler MACT goes into place that the electric generating units will only emit approximately 700 lbs per year. This is a rough estimate but it is approximately, we'll look for emissions that will be in the future. As well as the rough estimate of the other point sources in meeting approximately 700 lbs per year for a total of 1,400 lbs. So between 2003 and 2016 we're estimating that there will be approximately a 70% reduction in mercury emissions. EPA's modeling estimated that the electric generating units contributed about 30% of the total mercury deposition in 2005. For 2016 their modeling showed that the contribution went to approximately 11% due to the EGU MACT emission reductions. What we're doing here at DAQ is we're using EPA's 2005 mercury modeling files, the same version of the model that they used to run their 2005 mercury modeling and we're zeroing out the North Carolina emissions to try to understand, what is North Carolina's sources impact on North Carolina. Once we get those modeling runs completed, which we've had a few fall starts but

we're hoping that the modeling runs will be completed by next week. Then we'll work with DWQ to come up with the appropriate TMDL for North Carolina based on in part on this modeling work.

Kathy Stecker: So what's next? As you just heard we expect that the air modeling will be completed this month. Then we'll compile, analyze and write up the results by the end of September. Then as we mentioned to you last September we thought it would be a good idea to have a public meeting to explain what we've got so far and what to expect. Please note that we've had information on this effort on the DWQ website for over a year, and both air and water staff has talked about the mercury TMDL at other meetings with stakeholders. This is our second presentation to you. The public meeting will be an opportunity for us to go into a little more detail and to answer questions. We should have a draft TMDL by the end of the year with internal review next January. The next step for the TMDL would be a public comment period. The TMDL will inform wastewater discharge permitting and inform the recommendations in the Division of Air Quality's report to you on regulation of mercury emissions next year. Please allow me to recognize Dr. Jing Lin of DWQ's planning section, who is developing the TMDL. Thank you.

Dr. Peterson: It looked to me like your modeling had two major things that we in North Carolina could manipulate, and one was electric generating, point source discharges and the other was point source discharges from permitted units. So I was wondering about the other things. That is to say mobile sources and burning more generally, woody biomass burning and other kinds of things that might send mercury into the atmosphere, and whether their contributions are negligible or not.

Laura Boothe: Based upon EPA's emissions for the U.S. only 1% of the mercury emissions comes from your on road mobile sources, your highway vehicles and only 1% comes from your non road or off road mobile sources. So when we're looking at trying to control mercury emissions, we're really going to focus on the 90% that comes from the point sources, the permitted sources.

Dr. Peterson: How did you get the 90% and talk about burning woody biomass, forest fires?

Laura Boothe: They all fall under the area sources, your fires and residential burning which is about 5% of the mercury.

Dr. Peterson: So the contention is if that's 5% and then you get 6% from mobile and 7% from non mobile, or something, but then you dealing with what you expect are 93% of the sources by including those two types of dischargers from North Carolina?

Laura Boothe: Exactly.

Jeff Morse: What percentage did you say came from local government and what's wastewater discharges? It was 1%, wasn't it?

Kathy Stecker: Yes. It has been found in other U.S. studies to be 1 and 5%.

Laura Boothe: This is air emissions. These are the emissions that go up into the air. They're not necessarily the deposition emissions. So when Kathy's talking she is talking about the deposition into the water. What I'm talking about is this is the total mercury emitted into the air.

Ms. Deerhake: I think it would be helpful if you reminded us of the mercury rules that we adopted, the most recent ones that we've adopted two or three years ago. Dr. Moreau was the lead hearing officer on that. I would also ask if your estimates of source contribution, whether it's from distant or global vs. local or regional, I would appreciate you all addressing at some point, either today or as we go to the stakeholder meeting in October your views about the Steubenville, Ohio study which show that 70% of the deposition in that area was due to local or regional mercury emitted.

Laura Boothe: The modeling that we're doing is EPA's file so their boundary conditions include the global representation. What we're doing is zeroing out the emissions in North Carolina to determine what is the impact of North Carolina sources on North Carolina. So we'll determine what that percentage is for North Carolina. Until all the modeling results are done I'm not sure exactly what they're going to be. We inadvertently did a clean boundary condition run where we did not include boundary emissions and that showed about 50%, but that was if there was no impact from the boundary conditions, the global pool. According to EPA the global pool is a significant amount of what the mercury deposition is in the U. S. But we are looking at that, what is our impact on ourselves.

Sheila Holman: Actually I was going to ask Ms. Deerhake if she would repeat the question about the rules.

Ms. Deerhake: Well, for example one of our new members said, "Are we addressing mercury in the Air Quality Committee?" I thought it would be good to give us all a refresher on the mercury related rules that were adopted a few years ago.

Sheila Holman: In response to what was being called EPA's clean air mercury rule, the state did adopt rules to address mercury. We went somewhat beyond what the federal rule was. You all may remember that the federal clean air mercury rule was vacated because it allowed trading and basically the court found that was not an appropriate method for addressing the Clean Air Act requirements for mercury. EPA is now in the process of defining the EGU MACT standard, maximum achievable control technology. I apologize to all the new members. We often slide into lingo. But our rules looked at the system in North Carolina. We also adopted some more stringent requirements for any new sources and there were certain requirements for the Duke and Progress units that would go uncontrolled under clean smokestack. Those units would need to put on mercury controls or be shut down by a December 31st 2017. So we have been addressing mercury in North Carolina. The report that Kathy and Laura spoke to is required as part of that rulemaking so you will get a much more detailed report on mercury in and around North Carolina next July at this time.

Chairman Smith: I have a quick question about the TMDL as it's moving forward My understanding is the mercury that goes up is elemental mercury and that's not the neurotoxin. It turns into a neurotoxin when it lands in surface waters and converts to methyl mercury and the

difference in what converts from elemental mercury to methyl-mercury is in part dependent on the chemical makeup of the water body. Is that correct?

Kathy Stecker: Yes sir.

Chairman Smith: Parts of North Carolina have water that is naturally very susceptible to conversion of elemental mercury to methyl-mercury among other places the southeastern part of the state. Is my recollection serving me so far?

Kathy Stecker: Yes that's correct.

Chairman Smith: How are you in dealing with that in the statewide TMDL? How are you dealing with the information you have about the chemical makeup of our various water bodies as they relate to the conversion of elemental mercury to methyl mercury?

Kathy Stecker: We're not that far along yet. But we would be looking at protecting those most sensitive waters and the fish in those waters with the low pH and high dissolved organic carbon.

Steve Tedder: The water realistic does not meet any standards, I think. It's primarily because of the advisory for mercury. Is that the decision in rule? I'm trying to decide the standard is being violated for it to be on a 303(d) list? That is to make it something negotiated with EPA.

Kathy Stecker: It's the narrative saying that one of the uses our waters are supposed to support is fishing which includes consumption and the advisory tells us that it's not safe to consume as much as fish as you can catch.

Steve Tedder: I'm not sure that equals impairment but that's fine.

Chairman Smith: I have a request. Would you all be sure that your slides go on the EMC webpage so it can be attached to this agenda item. Thank you very much for that report. Are we to anticipate a follow up report? When can we anticipate a follow up report?

Sheila Holman: I imagine that there are going to be several follow up reports. We can certainly report back at the September meeting showing the difference between the in-state contributions, in-state North Carolina mercury emissions contributions to mercury deposition in North Carolina compared to out-of-state. We can certainly report back after the stakeholder meeting. You all can give us some direction as to how often you'd like to see us on this issue. An obviously we do have the mandatory July report a year from now.

Ms. Deerhake: We really had two things going on here. I think one is the North Carolina TMDL. The Pennsylvania trip that they referred to was where the northeastern states were concerned that we could potentially be transporting mercury emissions from North Carolina to northeastern states, sort of like the issues they have with the ozone transport rules, if that's correct. There are two issues that could be before us at this state on mercury related to that.

Dr. Peterson: When we talk and deal with in our modeling the so called sensitive waters in North Carolina on behalf of Jay Sauber and me, I hope you include the coastal pollution in this

as we would like to be able to eat our swordfish and tuna and other long lived fishes that are troublesome with their mercury in the ocean as well.

11-06 Update on Status of Rulemaking for Triennial Review of Surface Water Quality Standards

Summary (Dianne Reid): We have a brief update as where we are in the process of this surface water quality standards triennial review which is required under the Clean Water Act. At the March 22 EMC meeting the Commission approved draft rules that were proposed changes to the 15A NCAC 2B surface water quality standards to go out to public hearing. Those modifications to the standards included modification to aquatic life, metal standards reflecting the most current science which establishes the standards as the dissolve portion of the metals. We are adding acute metal standards. It included equations for calculating standards for hardness dependent metals and that includes adoption of a minimum hardness of 25 mg/l. Implementation related rules were also included that reflect the use of biology to assess the metals, water quality impairments, identify the sampling frequency and duration and the use of the ten-percentile in-stream hardness in calculating NPDES permit limits. There was also the addition of language to address flow criteria for the implementation of the acute standards, modifications to the chlorophyll-a standards which are also being proposed for freshwater and saltwater including specific changes for the upper Piedmont waters as well as duration component for all waters. There's also a modification to the 2,4 D standard for water supply waters and a few minor edits. We're currently working on the fiscal note that must be completed and certified by the EMC and approved by the Office of State Budget and Management before public hearings can be held. To assist permittees in determining their potential changes to the permit limits from the metals, the Complex Permitting Unit developed an online tool for calculating estimated total recoverable metal permit limits based on the proposed dissolved metal standards. These calculators were made available on the DWQ website in June of 2010. Also in June of 2010 the planning staff requested stakeholders to submit fiscal information related to information and implementation of the proposed changes. We asked folks to get their estimations and comments regarding cost and benefits (to us) by September 7, 2010. We received information from a wide variety of sources including municipalities, industries, the legal municipalities, other organizations, environmental advocacy groups and state and federal agencies. A wide range of cost estimates were submitted and we're working with the DENR Budget Analysis staff as well as the Office of State Budget and Management to sort out how these estimates can be used in the fiscal analysis. At this point we're assembling all that information necessary to give the economists and OSBM an understanding of the program and the rules. We're finalizing calculations on impacts to a sub-sample of discharges to allow extrapolation to statewide impacts. Assessment includes entities such as water treatment plants, wastewater plants, groundwater remediation sites, stormwater and pretreatment programs. At this time we've been watching the activity at the Legislature to see if there will be additional data requirements as we move forward related to the fiscal analysis. It is possible that the finalization of some of the bills that have been discussed today related to fiscal analysis will add additional time onto the development of this analysis. At this time our best estimate is about six months to complete the draft fiscal analysis for review by the Commission. Then final approval of the cost benefit analysis must be granted by OSBM before the rules can be taken out for public hearing. That's my quick brief. Are there any questions?

Chairman Smith: Questions or comments? There were none. Thank you for that.

11-07 Update on Status of 2012 Nutrient Forum

Summary (Dianne Reid): At the November 2010 meeting of the Water Quality Committee staff presented a proposal to take forward nutrient threshold rules to the EMC. Those rules would have required control of nitrogen phosphorous by point sources with a chlorophyll-a concentration exceeded levels determined to be indicative of the potential for future nutrient related problems. So potential nutrient related problems could be fishkills, alga blooms that would restrict swimming or alga blooms that might result in taste and odor problems at water drinking plants. The committee decided not to proceed with the proposed rules until they had a better understanding of some of the issues related to nutrient drink controls. At that time the committee identified five items that would assist with their being able to address proactive nutrient controls. Those were identified as a better understanding of alternatives to the chlorophyll-a rules, a clear understanding of the science related to nitrification or nutrient over enrichment. A more detailed review of cost and cost savings associated with the rules, possibly with basing thresholds on something other than chlorophyll-a and other indicators of trending or change that might be out there. After consideration of how best to address these issues the division proposed at the January 2011 WQC to hold a forum that would bring together other experts in the most recent science economic and policy information. The WQC endorses the approach and the division has began to development of the forum. Internal meetings in February and March identified basic resources needs and laid out a draft timeline and tentative agenda. The vision is that the forum be held over two days in the Piedmont, North Carolina for ease of access from the entire state and for invited speakers that may be coming in from out of state. Targeted attendees includes state and federal agencies, local governments, researchers, industries and other groups conducting water related monitoring in North Carolina. The division expects 105 – 250 people in attendance including presenters. The format will be based on presentations to a panel of EMC members that will be asking questions. Questions from the audience will be collected and posted through the panel. DWQ personnel constraints and the need for professional management, the logistical support for this is going to be contracted out. The contract will cover the following tasks: working closely with the division on style, format and location, contracting facility, hearing all matters related to the facility, constructing mailing lists, website construction and maintenance, design of mountings and postings, managing publicity, managing registration, compiling the proceedings, managing room setup and liaison with the speakers. The division will identify speakers for the forum with input from interested parties. We've already gotten suggestions from legal municipalities, the North Carolina Water Association and several others. The contractor will work with the speakers specifically on logistics and reimbursement. We're currently working to get approval to spend the federal funds identified for this contract. Once that approval is obtained the request for proposals will be sent out and then contracting can be completed. We drafted a schedule and agenda for the first day which we're looking at opening remarks by potentially the Governor, Secretary Freeman, EMC Chair and possibly DWQ Director. Then three sessions, the first session in the morning would be science related and a speaker at lunch. The two afternoon sessions would focus on regulatory issues both from the federal's perspective and from state perspectives, kind of a semi-technical overview of the other state's strategies. Day two again opening remarks. We're thinking

possibly the Environmental Management Commission's Chair with an overview of the day before and again three sessions lunch time speaker. The morning session would be economics proactive vs reactive, development of proactive public policies, and then closing remarks by the panel members. Depending on the when the contract is finally in place and the availability of facilities we're planning on having the forum in early 2012.

Jeff Morse: When you mentioned the five criterion we'll be studying I'm assuming you said science. One of the issues would be establishing a justification for the threshold levels, how those were obtained and action levels. Is that included in the science discussion?

Dianne Reid: That would be the whole understanding of chlorophyll-a and how it works and what it might trigger. Yes.

Jeff Morse: How we are establishing threshold levels?

Dianne Reid: Yes.

Jeff Morse: Thank you.

Chairman Smith: Other comments? Thank Ms. Reid. This is the first time I've heard a lot of that, interesting. That concludes our information items and we move into the committee reports.

II. Status Reports by EMC Committee Chairmen

We have three committees that met yesterday, water quality, groundwater and air quality.

A. Water Allocation Committee Mayor Darryl Moss, Chairman

We only had informational items at our meeting yesterday. Tom Reeder gave us report on the DWR impact from the state budgeting process. He gave us an update on House Bill 609 which promotes development of the Water Resources Act and House Bill 643 which was a bill related to the IBT certification requirements. Steve Reed gave us a River Basin Hydrologic Model Schedule update and Toya Ogallo gave us an update on the IBTs that we currently are looking at with Kerr Lake Regional Water System, Neuse system and the Brunswick Regional Water System as well. That was the extent of our work on yesterday.

B. Water Quality Committee Dr. Charles H. Peterson, Chairman

We did meet. Our first issue was an informational item on how well our compensatory stream and wetland mitigation has been going in North Carolina, looking at the success as meeting the regulatory targets and standards in those mitigation projects. That was presented by Tammy Hill and that will be online or is online already. It's well worth taking a look at because we have that run of articles in the News and Observer criticizing our ability to restore, and a lot of that was perhaps of concern but it was not a very balanced presentation in the sense that if there was something that didn't meet a standard the whole project was considered a failure. If it was 80% good and 20% bad it didn't get a 80% positive. It got rated in a way that kind of skewed the information. So it's really useful to look at this and look how well we're doing.

Then we had the Jim Gulick presentation that was alluded to and that the chair has sent around to us, Mr. Gulick's memo on the legal authorities that we have. We talked about this consolidated buffer rule and part of that consolidated buffer rule, I hope in the future it will be separated from it as an agenda item. It is the flexible options mitigation rule which I think is responsive to the general guidance of the General Assembly, especially this year, but I think in recent years of providing alternatives for affected parties and how they can meet the standards to preserve our water quality, our air quality and environment. I think we are in some ways a little bit ahead of the curve on that or maybe it was demanded of us. Then we had an examination of the New River basinwide water quality plan so we had the French Broad that we saw today at the EMC. The New River will come to the EMC in two months time. So what we looked at yesterday the whole Commission will have a shot at. We had an action item to look at a water quality classification change in the Neuse River Basin made by Johnston County that needs a little bit more to drink which if you drive through there you can see maybe why, and had to plan ahead for where drinking water was going to come from. Then need to classify an area where to protect our water quality in that river to preserve that opportunity for a future and not too long in the future intake. That included a quarry which is pretty interesting as well. Then finally we had approval and that will come to the EMC too, that Johnston County reclassification request so you will see that in the next meeting. Then we had an action which by our rules, we at the Water Quality Committee actually could make the final decision on. It doesn't have to come to the full EMC and that was requesting approval and giving it as we did for agricultural nutrient tracking and accounting methods in the Jordan watershed. So we heard those methods, heard the participants that took part in trying to do that process for us and give us quantitative numbers to see how well our rules are matching, how well our behavior is matching the targets in the rules. We approved that and that was our agenda which was a pretty long one, I might add.

C. Air Quality Committee

Marion Deerhake, Chairman

The Air Quality Committee met. We had two concepts which are going to lead to rulemaking to reflect changes in federal rules. One is the deferral of carbon dioxide emissions from combustion of biomass from the prevention of significant deterioration and Title V requirements. The other is a revision of the sewage sludge incinerators standards. We had several information items including an update on the state's proposed boundaries for the sulfur dioxide nationally ambient air quality standard down in New Hanover County. There was also accompany that proposed boundary or request for deferral because it does appear that some changes in the emission sources that the area could become in containment pretty soon complying with the ambient air quality standards. We also had a very good update on the monitoring and modeling forecasts of the emissions from the wildfires that have been going on in eastern North Carolina, discussion about what can be done to better reach out to the public to ensure that they're careful with the exposure time. I think one of the general conclusions of the monitoring was that it is peaking for short periods of time, an overall average has it below unhealthy limits but the peaks are certainly above unhealthy levels. We had a presentation on an update of pending federal standards which include the utility MAC which will be coming up for hazardous air pollutants as well as the nitrogen NO_x, our secondary national ambient air quality standard which is scheduled for proposal this summer. We had an update on legislation as it affects the state in terms of air quality including one that is significantly dealing with inspection and maintenance for the mobile sources. Ms. Holman has some remarks for closing.

The Groundwater Committee, Steering Committee, NPDES Committee and the Renewable Energy Committee did not meet.

III. Concluding Remarks

Marvin Cavanaugh: I just want to say thank you to everybody for making us feel very welcome and getting our feet wet. It's really been a joy and it's a whole lot to hear. A lot of work to be done.

Steve Tedder: I just have a question and maybe it can be resolved. But the issue on the 1, 1-Dichloroethylene kind of got convoluted as we went through multiple motions. Will we see that final package or scripter before what is being sent to the public hearing like at the September meeting or before?

Chairman Smith: We will need to clear Senate Bill 22 and Senate Bill 781 but I think the short answer is yes. It may not be September.

Coleen Sullins: Just briefly I wanted to mention and I meant to send out to all of you a short brief that we had put together on the statutes that passed affecting the environmental programs, and I'm sorry we did not get that out to you. There are a number of them out there. We obviously are still assessing what all they mean, Senate Bill 22 and Senate Bill 781 in addition to that. We hope to have something out to you shortly. There were a fair number of them that were passed. I would say of the ones that were passed, there were three of great interest to us that were all vetoed. We'll see what happens to those three vetoes in the coming days. I also wanted to welcome all the new members and the description of getting your feet wet seems to me an inapt description, and perhaps it was really you got deloused, and we apologize for that. We'll try not to do that every Commission meeting.

Sheila Holman: I'd also like to say welcome to the new members and certainly look forward to working with all of you, a couple of quick notes. At the last EMC meeting Jim Gulick from the Attorney General's office reported on the TVA settlement. I'd like to report that you may recall at that time the settlement agreement was out for public comment. The Judge in the case did sign the consent decree on June 30th so that settlement is final now. I'd also like to report back that we did receive a petition for adoption of a rule to regulate fossil fuel CO₂ emissions and to adopt a strategy that would achieve concentration of 350 ppm of atmospheric carbon dioxide by the year 2100. We did a review of that petition and found that it failed to meet five of the nine informational items that has been communicated back to the petitioner.

Frank Crawley: My only comment is I appreciate everybody's attention with respect to the contested case that you did today. We have not received a contested case that would be scheduled for September yet, but might be delivered in my office this afternoon. I hope not.

Chairman Smith: The only comment that I would say is to the new members today was not a typical meeting but it also wasn't an atypical meeting so you may see other days like this and you may see lighter days. I'd say both of those are likely so thank you very much for your good hard work today.

Hearing no further comments the meeting was adjourned.

NOTE: Attachments are on file in the Division of Water Quality with the Official Minutes.

Lois C. Thomas, Recording Clerk

By Commission Members
By Directors
By Counsel
By Chairman

Adjournment AG07-14-11