MEETING OF THE NORTH CAROLINA
ENVIRONMENTAL MANAGEMENT COMMISSION

Raleigh, North Carolina
March 11, 2010
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:

Yvonne C. Bailey	Marion E. Deerhake	Dr. David H. Moreau	Dr. Charles H. Peterson
Donnie Brewer	Tom Ellis	Jeffrey V. Morse	Dickson Phillips III
Thomas F. Cecich	William L. Hall	Mayor Darryl D. Moss	Stephen Smith
Stan L. Crowe	Dr. Ernest W. Larkin	Dr. David B. Peden	Forrest R. Westall, Sr.
John S. Curry	Kevin Martin		

DIVISION OF WATER QUALITY:

Bradley Bennett	Mike Templeton	Tom Reeder	Jon Risgaard
Ted Bush	Bethany Georgoulias	Coleen Sullins	Diane Reid
Kevin Bowden	Connie Brower	Lois Thomas	
Frances Candelaria	Gary Kreiser	Julie Ventaloro	
Alan Clark	Matt Matthews	Adriene Weaver	
Matthew Faerber	Sandra Moore	Chuck Wakild	
John Huisman	Rob Krebs	Elizabeth Kountis	

DIVISION OF AIR QUALITY: Keith Overcash
Michael Abraczinskas
Paul Grable

ATTORNEY GENERAL'S OFFICE: Frank Crawley
Marc Bernstein

Chairman Smith: called the March 11, 2010 meeting to order at 9:05 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.

Jeff Morse: The Triennial Review issues that are coming up before the Commission I ask our attorney to check with the Ethics Commission to see if there would be a conflict of interest for me to be involved in any discussions pertaining to the Triennial Review due to my role as a city manager, and of course we have a wastewater treatment plant and also with my role with the

League of Municipalities dealing with those issues and the impacts that it has on local governments. I asked Frank to contact the Ethics Commission and I think they have a preliminary ruling and I ask Frank to comment very briefly on this ruling for the question I've raised.

Frank Crawley: Members of the Commission the preliminary ruling of the staff at the Ethics Commission is that the relationship with the League of Municipalities does not create a conflict of interest and the fact that the proposed Triennial Review rules of state wide application without there being a disproportion impact on the municipalities of Valdese of the Safe Harbor Provision concerning classes of affected persons would apply and therefore would allow Mr. Morse to participate in deliberate and vote.

Mayor Moss: I'm going to reluctantly recuse myself from item 10-18 which is the Falls Lake rules. Similar to Jeff I have escalated this through the Chairman to Frank and to the State Ethics Commission but for today I will recuse myself.

Yvonne Bailey: I need to recuse myself from item 10-17 which is the Randleman public hearing. My company has some property in that particular watershed.

Chairman Smith: Any others?

Dr. Peterson: Can you confirm that item 10-21 has been removed from the agenda which is the Recommended Decision, Jackson County Government of North Carolina?

Chairman Smith: The petitioner has withdrawn its appeal as that issue became mooted since the dam has been consequently removed. It will not be heard. Is that right Mr. Crawley?

Frank Crawley: There will not be any arguments but I believe the Commission ought to address it and enter a decision and order to the effect that there has been a notice of withdrawal and dismissal and it's no longer a controversy and is moot, therefore you dismiss the matter.

Dr. Peterson: Then, I would like to recuse myself since there's an action to take.

Chairman Smith: Any others? I will ask for your consideration of the minutes from January 14, 2010. Are there any amendments or changes?

Mayor Moss: I make a motion to approve the minutes from January 14, 2010. Dr. Larkin seconded.
The motion passed.

Chairman Smith: As you all know since our last meeting one of our members resigned. Freddie Harrill was appointed to a position with Senator Hagan's office and as a result of that decided he could not and should not continue to serve on the EMC and he resigned effective immediately. I have a resolution for us to consider commending Freddie for his twelve years of service, in particular on issues relating to water quality and groundwater quality. It is similar to the ones that we have considered before. I don't believe I sent the exact wording out to you and

I will do that. However, while we are here if you would forgive that and let us have a motion concerning this resolution.

John Curry: As his fellow mountain member I would move the resolution for recognition of his service be unanimously adopted. **Mr. Westall** seconded also from the western part of the state. The motion passed.

Before the N. C. Environmental Management Commission
March 16, 2010

Whereas, the N.C. Environmental Management Commission is a body of nineteen citizen members directed to regulate and manage the protection, preservation and enhancement of the water and air resources of the State; and

Whereas, for seven years the General Assembly has entrusted to Mr. Freddie Harrill the responsibilities of Member of the Commission; and

Whereas, Mr. Harrill has generously undertaken those responsibilities and has served as Member with dedication, diligence, patience and effectiveness; and

Whereas, Mr. Harrill has been a Member of the Commission during one of the most demanding periods of environmental program development in North Carolina history; and

Whereas, Mr. Harrill has provided thoughtful and effective service to the Commission and to the State of North Carolina on many important and groundbreaking programs coming before this body, including, issues relating to state water quality and groundwater; particularly concerning underground storage tanks.

Now, Therefore, Be It Resolved that the N.C. Environmental Management Commission recognizes this exemplary public service and extends to Mr. Harrill its thanks for a job well done. Mr. Harrill, you have been and continue to be an asset to the people of the State of North Carolina.

Adopted by the Commission this the 16th day of March, 2010

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Chairman Smith: **Mr. Harrill** was an appointee of the Senate so we are awaiting word from Senator Basnight as to his replacement. I have one addition to the agenda as we announced yesterday and as you have received by email. The Renewable Energy Committee yesterday took up the question of a proposed report and set of recommendations to the General Assembly having to do with the use of woody biomass in burning to generate electricity principally or energy in North Carolina and we will add that to the printed agenda. It was left off of the printed agenda and I will take responsibility for that. I thank everyone that was at the Renewable Energy Committee yesterday and got that word, and you Commission members received the report last Friday. There have been some amendments to it after the Renewable Energy Committee meeting on yesterday but we will speak to those.

I. Preliminary Matters

10-11 Renewal of the Cooperative Agreement between the Environmental Management Commission, the Division of Water Resources and the Lumber River Council of Governments

Summary (Mayor Moss): This matter was heard yesterday before Water Allocation Committee and I'd like to go ahead and make a motion that we adopt the renewal agreement. There was a modification as suggested by Commissioner Hall to include language similar to that which was in the October 14, 2004 document, and the addition basically continues to development of conservation reuse strategies and interconnections where appropriate. I think Mr. Hall was your expectation that the language would be included. Dr. Moreau seconded.

Chairman Smith: asked for discussion. Hearing none the motion passed.

10-12 Request for Approval of the Interbasin Transfer Settlement Guidance Document

Summary (Mayor Moss): This matter was actually on the January agenda. I think that we had not circulated the final document to the entire Commission and wanted to bring it back for adoption for today. So I would so move. **Dr. Peterson** seconded.

Chairman Smith: Is there discussion or would you like a presentation?

Marion Deerhake: There was one scenario that was not in there that I was curious if the committee had discussed. That is what if a vote does come back to the Commission to rule on a settlement, does the mediator have a vote at that point or should the mediator not vote?

Toya Ogallo: We've kept the guidance document so that the EMC continues to have discretion. There may be something that is more appropriate to handle if that issue comes up and depending on whom the mediator is. If it's a member of the EMC or just how the process plays out. We try to keep this open as possible so that the EMC continues to have authority and full discretion in handling the process.

Chairman Smith: Does that answer your question Ms. Deerhake?

Marion Deerhake: yes. Thank you.

Chairman Smith: asked for further discussion or any other questions. Hearing none the motion passed.

10-13 Request to Approve the Final Draft of the Lumber River Basin Plan

Summary (Michael Tutwiler): At the January 14, 2010 Environmental Management Commission meeting request were made that the Division of Water Quality reconsider two recommendations and include additional information about mercury. We have retained the original recommendation to connect septic systems in the Little River watershed with additional clarification and are providing additional information on the copper impairment. An appendix was added to the document as an update about the status of mercury in the basin. Two sources of bacteria loading have been identified in the Little River watershed. They are stormwater and improperly functioning septic systems. Three recommendations were made to address bacteria loading and stormwater runoff from both existing and future development. Two programs were highlighted as a means to retrofit and restore habitat. Low impact development in addition to the coastal stormwater rules passed in 2008 will limit loading from future development. The recommendation to connect faulty septic systems in the Little River watershed was retained but will be clarified here today.

The soils in the Little River watershed are not suitable for septic systems because they are poor filters and there is a high water table. The density at which septic tanks were installed would not be allowed today even in areas with suitable soil for such systems. Replacing these soils is not affordable or practical especially given the density of the lots. In addition, Sunset Beach currently has a town ordinance prohibiting the installation of any new septic systems. In 2006 and 2007 the towns of Calabash and Sunset Beach signed an agreement with Brunswick County to provide sewer service to existing lots of record. Construction of the sewer lines began in November 2009 and is expected to be completed sometime in the summer of 2011. The waste will be sent to the Southwest Regional Water Reclamation Facility also known as the Sea Trails Wastewater Treatment Plant. Due to the inner connectivity of the county sewer system they will also have the ability to pump to the west Brunswick Regional Water Reclamation Facility. The Sea Trails Wastewater Treatment Plant is currently at half capacity and the west Brunswick Regional Water Reclamation Facility is currently using one sixth of its capacity. This project is not expected to increase stormwater runoff because sewers being installed to existing lots of record that have already been densely developed and redevelopment that would add more than 10,000 square ft. of impervious surface would fall under the 2008 coastal stormwater rules. In addition most new development is occurring outside the sewer project area where developers are required to install sewer lines but may be allowed to construct an onsite facility. Residents in this area will have to pay for their portion of the sewer line installation whether they decide to connect to the sewer line or not. If residents connect within one year from when service becomes available to them the cost is less. If they wait until after the year period and decide to connect the cost will be from $4,000 to $8,000.00 more. Ten percent of this project was subsidized by the American Recovery and Reinvestment Act through a grant awarded by the Division of Water Quality Construction Grants and Loans section. The copper impairment in the Calabash River is not necessarily a new impairment. The division only began assessing for

copper starting with the 2008 303(d) list which was revised in January to include copper after negotiations with the U.S. Environmental Protection Agency. Copper studies are needed to better understand the problem. Some potential sources of copper are known and the division is working to ensure that known potential sources are not reaching the water. We're working within current programs to increase the division's understanding of the copper issue and to obtain funding for outreach and research. Appendix G was added as update to the status of mercury in the basin. The Division of Water Quality has been meeting with the Division of Air Quality and is proceeding forward with the development of a statewide TMDL that will account for atmospheric deposition.

Forrest Westall: Concerning the copper contamination, one of the areas that weren't particularly mentioned, on the golf courses and on the ornamental ponds, copper sulfate is often used as a mechanism to keep algae from going in.

Michael Tutwiler: It was listed under herbicides (algaecides) and pesticides.

Yvonne Bailey: I had made some comments to Mr. Tutwiler regarding some editorial suggestions and one of them was NPDES should be national pollutant discharge elimination system and the other one I wanted it consistent with the Clean Water Act goals which is the discharge. It eliminates the discharge of pollutants. It does not eliminate all discharges and I wanted to make sure those changes were made.

Michael Tutwiler: Yes, those changes were made exactly how I sent them to you.

Yvonne Bailey: Thank you.

Kevin Martin: I wanted to thank staff for addressing the septic system issue which was pointed out to me somebody brought up at the last meeting when I wasn't in attendance because they thought I would bring it up if I was here. They were correct and whoever it was I say thank you for pointing out we are talking about extending sewer to faulty septic systems. I just wanted to be sure the Commission was not purveying the idea that extending sewer to properly functioned septic systems somehow improved water quality. Clarifying that it was faulty and the information you provided today was very helpful to me and I appreciate it.

Dr. Peterson: I too wanted to thank you for addressing that. I guess the issue is the information wasn't up to date at the time the Water Quality Committee heard this which is to say that the money was already in place and that sewage system was moving along. So the previous version that we had heard said we recommend that this be done and it was already in train, as they say. I did listen to your presentation and I'm glad that you incorporated a review of the stormwater control programs that are in place and the coastal rules that had modified those. One of the biggest concerns in this relates to the experiment, if you will, of putting in the sewage system in New Hanover County and finding that water quality in Futch Creek, Howe Creek and a number of the other creeks actually went backwards rather than improved at that point. That was presumed to be because of the addition of impervious surfaces and the lack of control of stormwater in the properties, but then subsequently developed and further developed after a municipal sewer was available. So the tie in here is the point in those areas and that is solving

the problem for human waste can then lead to problems from stormwater if we don't have good stormwater controls to pair with it. Hopefully our coastal rules will do some good. I noticed that you reported that Sunset Beach had put a moratorium on further septic tanks. That implies that there is some land ready to develop and that likely there will be some development by having a sewer system there. Let's just hope that the stormwater rules will protect the water quality from further injury. With that I report that our Water Quality Committee did hear this and did ask for further information on the sewer installation and for something further on the mercury and copper issues. I appreciated that you provided them, and with that I move for approval. **Kevin Martin** seconded.

Chairman Smith: asked for discussion or questions. I have two questions and we ask these the last time and they were answered but as I thought about them I was not sure I understood the whys of the answer or the why of the first one. That has to do with the mercury TMDL. Why don't we do a TMDL for the Lumber River Basin for mercury rather than waiting until the statewide TMDL is developed?

Michael Tutwiler: There is a partial TMDL for all but two of the sites where fish tissue samples have been taken and found mercury. There are already very, very strict limits on the wastewater treatment plants. They range from 4-12 nanograms per liter which until recently we didn't even have methods to detect that low until the last ten years. It's the atmospheric sources from outside the basin that are really the issue.

Chairman Smith: Then what's the time table on the statewide TMDL for mercury?

Kathy Stecker: We expect to complete it sometime in 2011.

Marion Deerhake: Thanks for adding the appendix on mercury. That is very helpful. I would ask that in Table H-2 if you would revise the title to say "Estimated Atmospheric Mercury Emissions and Pounds Per Year" rather than Atmospheric Emissions. I would like to learn more about the increase in mercury emissions from Montgomery and Robeson County between 1996 and 2008 about those sources.

Michael Tutwiler: For Robeson County a new power plant went online. I'm not sure what their increase for Montgomery County was. I don't believe they had a really high amount of emissions to begin with.

Marion Deerhake: It's going from one to 4.7 pounds.

Michael Tutwiler: That's really low.

Marion Deerhake: Robeson has gone from 8.8 lbs per year to 38.3.

Michael Tutwiler: I expect Robeson County to decrease because the power company has said they are planning on converting to natural gas. It's currently coal. The natural gas would reduce mercury as well as the New Hanover County Sutton Plant which is also planning on converting to natural gas.

Marion Deerhake: With the three treatment plants that are having problems, is there mercury in the influent?

Michael Tutwiler: I'm not sure that they test what's coming into the plant. As far as the Tabor City Treatment Plant is concerned there's a dentist office that still doesn't have mercury traps at their office. They have been approached but it's up to the dentist to install those traps. The mercury violations at these plants are mostly resulting because the limits are so very low. If you were to add up all the discharge from the wastewater treatment plants it wouldn't even equal a percent of what the atmospheric emissions are.

Chairman Smith: asked for any other discussion or questions. We have a motion by Dr. Peterson and a second by Mr. Martin to approve the final draft of the Lumber River Basin Plan with the amendments since our last meeting. The motion passed.

10-14 Request to Proceed to Public Hearings on Proposed Triennial Review Rule Amendments to Surface Water Quality Standards

Summary (Connie Brower): Today we are here to discuss the Triennial Review of surface water quality standards. Those are changes to our 15 A NCAC 2B regulations. I'd like to bring to everyone's attention that our 15A NCAC 2L regulations for groundwater quality standards were approved by the Commission in the fall and went into effect January 1, 2010. The establishments of surface water quality standards are regulated under the Clean Water Act and the program is delegated to the State of North Carolina. The Clean Water Act requirements limit the amount of pollutants that go into the water. They outline the conditions of the surface water, ensure the protection of our designated uses. Classifications and Reclassifications are often brought before you by Betsy Kountis, Adrienne Weaver and Jamie McNees, our counterparts in the in the Classification and Standards Unit. The protection that we develop must include physical, chemical and biological integrity of all waters. We have undertaken a great amount of public outreach over the last year. I just mentioned to someone that we've (Classifications and Standards Unit) done this presentation eighteen times. This information has also been covered by our Surface Water Protection Section relating to implementation of these rules.

The outreach has included the League of Municipalities, Urban Water Consortium, several river basin associations, our Laboratory Analysts Workgroup(s), Pretreatment Consortium, Industry representatives and Energy representatives, NC Pork Council and in Wilmington we recently attended a regional office (NPDES) permittee seminar. This was for (WW) operator training and approximately 150 folks attended. MCIC sponsored a Water Quality workshop on March 1st that Nikki Remington, our environmental scientist, presented this information for us there as well.

The anticipated major changes (to standards) are changes to chlorophyll-a, aquatic life metal standards, 2,4-D which is a chlorophenoxy herbicide, applicable to water supplies only. We will have clarifications and reorganization of the "Red Book" (15A NCAC 2B regulations). The "Red Book" itself has been added to and amended through the years. It has become a bit wieldy trying to find information. We have reorganized the rule and in your (Commission) packages,

reorganized language should have appeared bright yellow to identify where language was new and where language was just moved and not proposed as new text.

Our current chlorophyll-a standards are 40 ug/l in fresh and salt waters, and 15 ug/l in trout waters. The numerical values are not proposed for change, however, our current language refers to standards as a "maximum not to exceed" or a value that cannot be exceeded in waters. That has never been the way that we have applied the standard. Our Use Assessment units have evaluated data as "not greater than ten percent of the data" can exceed the specified standard. We recognize, particularly for chlorophyll-a that there are natural fluctuations. The addition of this language will mimic what the current application of the standard. At the (January 2010) Water Quality Committee meeting someone asked what the word "data" meant. From EPA's handbooks, "data" refers to valid laboratory results and calibrated model output. We have proposed one additional standard for chlorophyll-a. Staff has reviewed, under our Nutrient Criteria Implementation Plan, data from across the state and recognized that we needed a regionalized standard applicable to the mountains and upper piedmont (regions of the state). The proposed value is 25 ug/L. It represents chlorophyll a levels that we are seeing in these waters. Establishment of a standard at 25 ug/l in these waters will "hold the line" as opposed to allowing those waters to reach the current 40 ug/l standard. "Mountains and upper piedmont" (region)is defined in rule (15A NCAC 02B) and has an associated regionalized standard for temperature. We (The State) are charged, every three years, to review the National criteria and science and determine if we have need to revise water quality standards. Since the 1980s, the USEPA has published revisions to several metals and, to date, North Carolina has not adopted those recommended changes. The proposed metals standards (15A NCAC .0211 and .0220) are modified to reflect current science. That would be the fresh water (.0211) and the salt water (.0220) components, respectively. It's important to recognize that under Clean Water Act obligations, when we review national materials and propose standards, that review does not account for analytical feasibility or technical feasibility of removing and achieving compliance with the standards. It is our charge to (establish standards) that protects aquatic life and human health. So, we (Water Quality Standards staff) cannot look at whether or not the proposed concentration can be analytically quantitated or whether it is technically feasible (to reach that concentration) at the end of water treatment. Feasibility is not a consideration under the Clean Water Act.

However, as a state employee, we are responsible for determining the fiscal impacts of any rule making, and produce, for OSBM, a fiscal note. That report must be completed and approved before we can take (proposed) regulations out to Public Hearing. So, while one "hat" requires that we not look at what regulations cost, the other hat says I must.

The current water quality standards are written as "chronic". Basically, "chronic" means a low level concentration in the water for a longer period of time - a predicted long term impact. We have been encouraged by the EPA to include "acute" standards. We are proposing acute standards as protection for a briefer, but perhaps higher concentration, for a shorter term exposure. Acute standards will be proposed for all metals, with two exceptions, selenium and mercury. Selenium and Mercury, both bioaccumulative pollutants, are addressed through examination of a longer term exposure. So, Selenium and Mercury will only be written as chronic.

We have a proposed 1Q10 flow criteria for implementation of acute water quality standards. Our (NPDES) permitting section has previously applied acute standards in the form of "daily max" (allowable permit limit). This "end of pipe" concentration, assuming no dilution, as the flow criteria was questioned by several permittees. They (Surface Water Protection Section permit writers) have already put the use of a 1Q10 flow criteria into policy, EPA does not disagree with its use. The application of this rule will allow some relief to what is currently used as "end of pipe" flow criteria. This flow criterion is based upon allowable federal guidance.

We will be proposing addition of "dissolved" metals. During the last Triennial Review we brought to your attention that cadmium needed to be revised based upon revised national guidance. The stakeholders were concerned that the number is very low and that we (DWQ staff) were not looking at the dissolved fraction. The dissolved fraction is typically understood to be the more toxic fraction and the more bioavailable fraction. So, per stakeholder request, and EPA's request we will be looking at and changing our metal standards from total recoverable metals to dissolved metals. Again, there are two exceptions, mercury and selenium. Mercury and Selenium are bioaccumulative pollutants, and are measured (analytically) as total. The change to a dissolved metal standard does not change the NPDES permits requirements for reporting "total metals". Under 40 CFR Part 122.45 (c), permittees must report total metals. Jeff Poupart will appear today to discuss how that implementation will occur, and how the dissolved metal standard will be applied as a total recoverable permit limit.

Hardness Dependent Issues: This subject has been quite difficult for a lot of stakeholders. We have been using 50 mg/l as our base hardness value for a number of years. For some metals when there's a decrease in water hardness, the decrease is associated with an increase in the potential for aquatic toxicity. We've proposed a state default hardness of 25 mg/L with numerical concentrations calculated using the default hardness of 25 mg/L. Many of our state's waters have very low hardnesses. Our data indicates that the majority of the state's waters have recorded values below 25 mg/L. The use of this default hardness has caused concern for our affected parties. They believe that (the use of 25 mg/L) is going to make it very hard to meet permit limits. What we would hope to explain to you today that we are actually trying to hold the "floor" at 25 mg/l , as tight as we can, to prevent these proposals from being any more damaging than they could possibly become. The National Recommended Water Quality Criterion documents, on which these numbers are based, are based upon laboratory toxicity values which are generally not performed at hardness below 25 mg/L. That was "old school" – now, our proposed cadmium criterion and some of the newer draft documents that are being published do have toxicity data produced at hardnesses below 25 mg/L. One of the reasons that the laboratory does not run toxicity tests at hardness below 25 mg/L, is because it is quite difficult to hold the hardness in laboratory water at 25 mg/L. Mother Nature does not have that difficulty. Mother Nature can maintain the hardnesses in our state well below 25 mg/L and manage to keep it there. Because of the proposed use of 25 mg/L (hardness), our stakeholders immediately raised concerned that this was overly conservative. Our Environmental Sciences Section aided us evaluating our data again. Our stakeholders desired a more flexible approach. Our draft proposed rules do include numerical standards calculated at 25 mg/L ,the floor, and metal specific formulas which may be used to develop a more localized standard. The applicable localized hardness at the 10th percentile of sub-basin data is proposed. To arrive at this decision, staff evaluated the NC dataset. At the 10th percentile, which means the dataset is ordered from

lowest hardness, which could be the most toxic hardness for an organism to encounter, to the highest hardness, a hardness that may be least toxic to aquatic life. So the dataset was ordered lowest hardness to highest hardness, or most toxic to least toxic. We drew the line at the 10th percentile, meaning that ten percent of the data values are below the 10th percentile, 90% are above. At that 10th percentile, it was our thought that concentrations would be protective using the specific formula, 90 percent of the time and that we would accept the risk that one out of ten occurrences, we may potentially be under-protective. From a risk management perspective, we would accept that we would not be protective 100% of the time. When ESS staff organized the dataset the 10th percentile falls, at times, below the 25 mg/L floor or it is on top of 25 mg/L hardness. So, with the use of a "floor" of 25 mg/L, we may not be protective 90% of the time. It is important to recognize that this is not a small dataset. We have over 35,000 data points, over 30 years of data at 645 ambient stations across the State. The 30 + years of data would encompass years with high rain flow, drought years and normal years, etc. We recognize that you have all received letters questioning the completeness of the data set. The dataset is quite robust and we feel that our portrayal of the 10th percentile captures the nature of the waters of the state. Those folks that have been concerned that their waters are of higher hardness are correct, if you observe the statewide map of hardness values, I think that you can easily see where those areas (of noted higher hardness) are. One of our staff members calls this the "concrete corridor", but the concrete corridor includes the Triad, the Triangle and Charlotte-Mecklenburg areas. Those are where our urban influences are causing an increase in hardness.

Arsenic, our first standard listed on the table, is comical because most people recognize that arsenic is going up, not down. This proposed value is based strictly on aquatic life, however arsenic is also regulated for human health protection and that number is 10 (ug/l). So, the driving factor here, even though 150 ug/L and 340 ug/L appear in the Red Books, is 10 ug/l. That (number) is currently in the regulations and not proposed for change.

Cadmium* (noted with an asterisk) which means a hardness dependent metal. Cadmium, chromium III, copper, lead, nickel, silver and zinc are all hardness dependent and are subject to metal specific formulas associated with a localized hardness value. Cadmium is going from 2 ug/l to 0.15 ug/l rounded to ~ .2 which a tenfold drop. Jeff Poupart (Surface Water Protection Section) will present, following this one, so that you can see how these standards will be implemented. We have a few others, copper, silver and zinc, which are all listed as "action levels". The state is actively working to maintain its Action Level policy. The policy means where our dischargers have potential to exceed the water quality standard, they are allowed perform a Whole Effluent Toxicity Test to assure that the copper, silver or zinc are not causing toxicity in the stream. We are making every effort to retain the policy , however, it has been scrutinized by US EPA.

Iron is being proposed for removal. Our database indicates that iron is naturally occurring in NC waters, it does not appear that EPA opposes this proposed removal. We're not expecting any problems. The next slide provides a table of saltwater standards. Most of the numbers are going down with a few exceptions.

The next rule is a type of biological assessment of water quality. As many of you are aware we have at times been listing waters that may or may not be impaired for aquatic life use support.

Primarily this occurs because the US EPA has asked us to look at "not greater than one exceedence of a water quality standard in a three year period of time". When a number is at or near practical quantitation or an analytical detection limit, it is highly likely that we may get a result that is a potentially "false positive" hit. We are proposing that instream biological integrity would indicate attainment of aquatic life use where we have those questionable situations and where we are trying to make sure that we are making the right decision to label water as "impaired", and to ultimately have our TMDL staff do a TMDL. Please note that this applies only to ambient assessments, and we will not be using this "biological integrity" rule where mercury and selenium may exceed the water quality standard.

We have proposed revisions to one human health standard. All of them have been reviewed but this is the only one that required revision. 2,4 D which is a chlorophenoxy herbicide is proposed for modification. It is applicable to water supply classifications. It's a slight change from 100 ug/l to 70 ug/l. This is based on updated non-cancer information provided to us through IRIS which the Integrated Risk Information System. IRIS is an EPA supported website.

Under Clean Water Act, we are required to remind you that we do have variances in state waters. We have a Color Variance in the western part of the state and we have two variances for chlorides. Comments on these variances are requested during each Triennial Review. Comments received will be forwarded to our NPDES Committee as these are not statewide variances, but are applicable only to the specific permittee that has requested them. These variances are always open for public comment during our Triennial Review.

We would like to request permission to hold public hearings on proposed rule amendments in accordance with the federal triennial review of surface water quality standards. Jeff Poupart has prepared a presentation to bring to you on the implementation phase of these proposals.

Jeff Poupart: We have received letters from several organizations that expressed their own concerns regarding the implementation of these triennial review standards into permits. Part of the renewal of the new standards for metals will be used to calculate limits that will take place over a five year period which is the typical NPDES cycle. NPDES permits are, have and must be written as total metals according to the 40CFR 122.45(c) regulations. To convert to proposed on dissolved metal water quality standards to a total metal, permit writers used a dissolved metals translator. You take the dissolved metals translator that Connie showed you and divide by the translator which will equal the total metal allocated to the permittee. Our metal translators, they account for the fraction of the effluent's metal that will actually be a bioavailable in the receiving water. They may offer permittees relief in some water bodies. Translators must be determined for each metal and are unique for each receiving stream in each segment of that receiving stream. The type of translator that will be used when actually, I think he meant insufficient data exists for calculating stream segments are called a default partition coefficient. These are EPA equations that were developed in 1984. We surveyed all of the surrounding states and found that this is used by all the Region IV States with dissolved criteria. This equation is total suspended solids dependent and North Carolina currently lacks sufficient data for using the site specific translator for that individual receiving stream. North Carolina will be using the default partition coefficients in establishment of permit limits. How does all of this work? In addition to the calculated total metal standards flow is a very important part in how you calculate an NPDES

limit. We talked about taking the dissolved metal divide by the translator which equals a total metal allocated to permittee. You take that total metal calculated load and divide by the instream waste concentration which will equal the permit limit. Then you calculate the instream waste concentration by taking the plant flow divide it by the plant flow plus the lowest weekly flow of the stream over a ten year period which equals 7Q10. You run all of that through an example. You take the critical low flow, for example saying that it is 1 cubic feet per second, and the plant flow 1.3 MGD, 2 cubic feet per second will equal instream waste concentration of 67%. The proposed cadmium standard equals 0.15 ug/L and that's assumed at hardness of 25 mg/L which is the default that we are recommending. The translator which is calculated the default partition coefficient in which we mentioned is TSS dependent but we just put it at 0.257 which is the typical TSS value, run all that through 0.15 ug/L divided by 0.2517 ug/L will be 0.58 ug/L total metal calculated loads. Take the 0.58 ug/L and divide by the instream waste concentration so the permit limit will be 0.86 ug/L but for all intents and purposes be rounded off to 1 ug/L. Water quality standards for some metals are hardness dependent and in the rule you see that the equation is actually placed next to the actual numeric standard. To determine the permittee's specific instream allowable dissolved metal concentration we use a hardness mass balance equation. So the hardness upstream of the 8 digit HUC which is the actual receiving stream plus the hardness of the effluent will be divided by the total of the hardness of the total flow of the effluent and receiving stream. Assuming TSS of 12 and also we don't have currently promulgated acute standards but we do use acute standards in permits if their chronic isn't going to give them any limit at all we have to let them look at something. So we look at the acute values. The most common for us to look at would be lead because it is the least extreme. On lead the proposed standard is 0.54 mg/L 14 acute and the translator using TSS of 12 would be 0.178. So the effective proposed total metal standard that would be used to calculate the permit limits would be 0.3 mg chronic and 0.178 acute. That compares with our current standard of 25 ug/l and 34 acute. The chronic standard is dropping by an order of magnitude for a typical user. By explaining the process you'll be actually using to calculate the permit limits to see how that's done. But to show what the hardness of lead if lead was 50 the calculated total dissolved standard would be 1.2 taking the translator again and it would be 6.6 chronic. That is still significantly lower than the current chronic standard of 25. But interestingly the acute number is actually larger than what you would get currently. The acute and chronic basically translates to a daily and month maximum so the acute would be a daily maximum in permitting and the chronic would be a monthly maximum. To summarize the NPDES implementation we use the default partition coefficients and equations as translators but the permittee would still have the option to use localized if it benefits them. In hardness determination we use a mass balance equation but set 25 mg/L as a default. Compliance schedules will be written into permits if treatment is going to be necessary for them to meet the new standards.

As you in the last couple of months have sent forward rules, modifications of the pretreatment rules and the pretreatment program is when municipalities issue NPDES like permits to their industries and they honor the delegation from the state. Despite the letters you may have seen, the pretreatment program only regulates industry but it doesn't regulate commercial or residential development. When we ran under this current permitting strategy there will be fewer over allocations that are expected. Without the default partition coefficients and mass balance for hardness there was a majority of over-allocations but fewer now anticipated. We surveyed all the surrounding states per the suggestion plus Florida, Michigan, Oregon to show our pretreatment program is doing the calculations similarly to those states. All

the states required a calculation of a pollutant maximum allowable headwork's loading which is the amount of total pollutant to be accepted into the plant before it's removed and what would still pass your permit limits to the stream. All the states also considered the uncontrollable domestic loading and this would include all the residential and commercial non industrial loading, when they calculated the amount of loading allowable for the industry which is called the maximum allowable industrial load. This is what the permittee with the town actually uses to divide out to their various industries. Pertaining to pretreatment every state, the EPA and NC Statutes prohibit the over allocation of a pollutant by municipality or anybody. There's been a lot of talk that the municipalities and industries are unhappy about accepting a permit limit lower than the current detection limits. Similar situations exist for mercury and many years the mercury standard was several orders of magnitude lower than the practical quantization limit. The situation will exist now for cadmium and also for lead; however recent discussions in laboratories indicate that technology has moved forward with the cadmium. Practical quantization limit will be dropping to about 0.5 micrograms which will be below the standard and will allow the permittees to have that. But when this similar situation came up with mercury about a decade ago we thought there was going to be a lot of over allocation but when we actually looked at the values we realized that the effluent didn't contain mercury that the removal rates across the plant when we had good data of effluent to influent were much higher than the defaults that we used. For example, the default that we used for cadmium is 67 percent and that's based on data from the late 70s. Also, the uncontrollable loading that I mentioned when we have better detection instead of using the current half detection which we used, we used the actual value which may be closer to zero. That will alleviate a lot of the current potential over allocations situations that people have been fearful of. We've also been reviewing our policies to see if they are aligned. Currently if a pollutant is less than 50% allocated coming into the plant they can petition to have that removed from any calculation and not give permit limits out for that permit. There was some concern that everybody would have a limit and everybody would then have to issue out industrial permits to every tiny industry in their town.

We are requesting permission to hold public hearings on the proposed rules amendments in accordance with Federal Triennial Review of Surface Water Quality Standards.

Forrest Westall: One of the questions on the dataset is robust as you said for hardness. I think we stopped collecting hardness in 2001. So we haven't updated that and obviously dischargers have not been doing. A lot of hardness measurements either. So that's going to be an important part of this. Are there any plans for the ambient program to be included, the fact of measuring hardness?

Connie Brower: Yes it's actually to be reinstituted. The Ram study which is not fitness already but the Ram study is actually continuing to reaffirm our original calculations. It hasn't changed. Hardness other than the fact that we have an urban influence it doesn't shift dramatically.

Forrest Westall: I wanted to thank the staff for all the work that they have done. I appreciate all the efforts to do outreach and I heard from several stakeholders and people that are concerned about this. Despite their concern they appreciate the opportunity to meet. They met with Jeff, Matt, and others in the permitting group, and talked with them. I think they appreciated the opportunity to do that. I do acknowledge the outreach and all the work that you've done. What I

would continue to say is that in relationships you always think you've done outreach but it doesn't always work. There are still a lot of concerns and I know that you know that. I want to say for the dischargers and want everybody to understand that one of the reasons that I questioned a lot of this and asked about implementation is I don't disagree with the science of the change in hardness. Usually North Carolina waters are much softer than 50 so we know that to be the case. There's a change and I want to emphasize that the people that run the wastewater plants and operate these systems, none of the improvements in water quality happen because we pass a rule. We can pass a rule and we can say the number is this but it only happens when the facility has achieved that number. The water quality benefits only occurred when that happened. Connie said earlier that her job as a state employee and she does it very well is to do the things that she needs to do. The folks that are being impacted, their job is to run these facilities and they're judged by their compliance. When they get a notice of violation from the Division of Water Quality that's a huge impact to them. It doesn't benefit water quality if we can't achieve the numbers that are there. I do think that with all the work they've done, that I'm much more encouraged that the limits will not be as dramatic a change as everyone thinks it will be. There's good information and bad information being sent in, exasperations and everything else. But concerns will remain. The staff has done a good job of coming up to this point and reaching out. There will be a lot more work done between now and the public hearing and more issues will come up. Most dischargers want to know what their compliance schedules are going to be and what they have to do. Jeff already said that's going to be a negotiated issue with each discharger as the permit comes up. Advice to them obviously is collect hardness data or collecting metal data and look at what they're doing. I say all of that to say that I appreciate what the staff has done. It provides a good basis for moving forward. I know that there's a lot of concern about this but I think the staff has done an excellent job.

Dr. Moreau: I would move that we move this forward to public hearing. Dr. Peterson seconded.

Chairman Smith: asked for questions or discussion.

Jeff Morse: I'm still somewhat concerned about the challenges that local governments as well as industry are going to be facing with these proposed regulations and I do appreciate the efforts that all of you, especially the meetings I've attended where you have been very forthright and we do appreciate that. However, when I listen to pretreatment directors and others that are going to be directly impacted, then I hear Jeff's presentation which I also have a lot of confidence in I'm torn to try to balance what the state's staff saying and what our municipal employees or those that are being impacted. I know we are going to have public hearings to have a chance to hear additional feedback but what I lose is the ability to hear them face to face talking about when the state says this and then have a counter argument from those that are being impacted. We hear them separately without hearing how they can, for example in a debate format, and I don't know if we have ever attempted to do something but as we go through the public hearing process I would like to know if it's possible for our Commission to hold as part of the public hearing process an opportunity to hear those that are being directly impacted and the state's staff, sort of like having a debate so we can hear directly from both sides at the same time. When Jeff says we will have less impacts than what we are proposing and I hear from local governments that it is not true, here's the reason why. If I can't hear them both back to back it's hard for me to

understand who's carrying the right message. I'm just saying because of the delicacy of these issues in the technical issues, do you think that's something that we might be able to arrange for the Commission to hear and have the state's staff and representatives from the impact community to have a direct debate a lot of the issues that we've been getting through the emails and publications, before I make a vote on what is the best interest or balanced interest between the state and our local governments. Is that too out of the ball park?

Chairman Smith: It's certainly something for us to consider and talk about. It's an interesting proposal and once you have had a chance to think this through if you have any suggestions about that whether or not that's a good idea and if so, how pass them to me. I'll follow up with you and come to some conclusion. This issue in many ways is not any different than a lot of issues that we receive in which there's strong feelings on multiple sides. We receive a lot of information, a lot of position statements and position papers so we can make the same argument on not every single issue that comes before us but certainly more than half of them. Oftentimes there's strong feeling. The other thing that I've heard and I identify with this having been an advocate before multiple forums for more than three decades, one of the disadvantages of the way our system is set up is that there's limited opportunity for advocates to speak directly to the decision makers. When I'm involved in some form of advocacy I want to have direct access to the decision makers. Our system is not set up that way for better or for worse. A lot of times that makes for a more efficient system in some ways the way we do it. But it is a fair question, **Mr. Morse** and I think we ought to explore it.

Jeff Morse: I know the state's staff says that you cannot look at cost. I think that's an EPA requirement but in this day and age I see these million dollar price tags coming down to local governments and industry and we have to pass those cost on. We have regulations in place and one of the comments that I've made before to the chairman and private audiences that we have so many rules in place right now, why do we have to keep rationing further and further down when it seems that the current rules we have in place seem to be protecting the environment and us, but yet our efforts are to go lower and lower with the costs going higher and higher. Eventually there's got to be some kind of balance between cost and livability on how those costs are spread to the citizens who eventually have to pay for all this. In the current environment it seems more stressful for those that are unemployed, people who don't have jobs and industries cutting back, how do we pay for all this. How do we pay for all this? Yesterday at one of our hearings I head the state staff concerned about the requirements that EPA is putting on our states, they can't carry out the requirements that EPA is asking us to. They don't have the money. They are cutting out monitoring stations. So I was interested in hearing the appeal from one of our department heads that we have the same issue. Somewhere we have to find some kind of balance. I don't know where that answer is.

Chairman Smith: Thank you. As we all know what makes this job as difficult as it is, is balancing environmental quality and economic impact.

Mayor Moss: Not to beat the cost issue to death but just kind of fast forwarding thinking about the public hearing process, I think what we are going to do is put local government in a position of being able to respond in only a very limited fashion. Not knowing what the numbers are you're going to have them standing up trying to respond to something they don't know. I am

just kind of echoing Jeff's comments about the cost issue. I just think that is an extreme concern for local governments.

Dr. Moreau: I just want to suggest that the public hearing process is an opportunity for people to put forward evidence of what these consequences are and encourage those who may be affected to put forth real efforts, real evidence that we can take a look at to see what these impacts are going to be, so that we can make an informed judgment. Obviously we will hear both sides and I for one would like to see the evidence, basis for making a judgment on whether to proceed or not on particular issues. I just encourage those to give us real evidence of what these impacts are likely to be affected.

Chairman Smith: I hope all the stakeholders hear that. That's a good word from Dr. Moreau.

Donnie Brewer: I want to support the comments that Mr. Morse made and also Dr. Moreau. I think a lot of this is about science and mathematics. I too would like to see that because certainly the information coming in is complete. But I'd like to touch on the cost. A lot of the emails and documentation that I'm getting and these costs are high and not having seen any cost from the state I'm assuming that we are required to have a fiscal note before we go to public hearing. I would like to have that information shared with the Commission members as soon as possible. I'd really like to see what they think that it's going to cost, for instance what local governments think it is going to cost.

Chairman Smith: What's the schedule on the fiscal note?

Connie Brower: The fiscal note begins when we get approval to go out. We have to draft the fiscal note on the proposal and to echo Dr. Moreau's thoughts we have at every opportunity expressed to people that we have spoken to that we will need information from them based on their lab results or on their permitted flows and calculations. I think that once someone gets a chance to look at their effluent hardness, their localized hardness and run this mass balance they will be able to better explain what the impacts will be for all of us. The fiscal note has to be completed before we can go out to public hearing. OSBM has to have approval before they publish our rules as notice of text so we cannot go forward to public hearing until that fiscal note is completed. That's obviously a public document. We've got letters and requests ready to go out for the League and industries and environmental groups as well. We have to remember that while there is a cost to the public there's also a benefit to the public and clean water, so we have to be able to try and capture both.

Forrest Westall: I appreciate the comments on costs and the other issues difficult to be compliant. One of the mechanisms in public hearings that have been used by the hearing officers is question and answer sessions. These are prior to or after the hearings that allow stakeholders or individuals to present specific questions rather than listening to a staff presentation and then making a presentation. It gives some exchange back and forth, particularly if we hold some multiple hearings in the east, the middle, and the west. That would give us a chance to do that and to hear the information. Particularly since I think having a Commissioner as a hearing officer allows at least that group of people to come back to the full Commission and be the eyes and ears of that deciding body. The chairman's point is very well taken and it's sometimes very

difficult for people because they don't get a chance to directly talk to us. That would be helpful as well. I do encourage as the staff and others have here for affected parties to begin a process of calculating the cost, the impact and the difficulty. In some cases it has been stated that they can't do it at all. If that's the case then that is really a big issue. But I'm not sure that everybody has been working with the same information and the staff has already begun the process of actually calculating for individual discharges what these effects are. I went by yesterday and talked with some of the permitting staff and they are actually calculating what the limits would be on specific discharges. That gives people a much stronger chance to determine what that impact is going to be to them directly. The back and forth through the hearing process, any mechanism to do that would be beneficial to be able to have folks and stakeholders say their peace and hear the state respond to either whether they believe they are correct or not.

Jeff Morse: Do we adopt draft rules to go to public hearings? Is that the process?

Chairman Smith: We approve a set of proposed rules to go out to public hearing but we only approve for the purpose of putting them out to public hearing rather than the rules themselves.

Jeff Morse: What confuses me a little bit is we as a Commission proposes draft rules to go out for public hearing yet we have no idea of what the cost potential is to those that are being impacted. Shouldn't we at least know that particular cost element as we deliberate before we go to proposed draft rules to the public? Shouldn't that be something we should have in our background? What usually happens is when the Commission sends proposed draft rules and pretty much the perception out in the world is that these are where we are heading guys. We will listen to your challenges but it is going to take an uphill battle to move in any direction. That's the perception, maybe more so the reality. Why shouldn't we know the cost before we go to public hearing?

Chairman Smith: My understanding is what I think I've heard about that is that the staff that's going to undertake to do the fiscal note can't calculate the cost until they see what the rules look like that we put out to public hearing. As we know we oftentimes make a lot of changes between the proposed set that comes to us to go out to public hearing and what we actually put out to public hearing. The Falls Lake rules from yesterday are a good example. That's my understanding of why that process waits on us. On the public perception piece that what goes out to public hearing is close to a done deal. When I came on the Commission that was my sense as well but I've learned that's not the case, particularly since we're more inclined now to send out options. We hear a debate on a particular issue or particular point so we send it out option A and option B to focus the conversation in the public hearing process. I hope that works to help with the public perception that the decisions have not been made.

Connie Brower: I think that it's a little bit like the chicken and the egg. It's a little difficult for us to draft a fiscal note if then the Commission says we don't want point 2 we want point 8 because all the math on which we base that equation that thought would have to go back to OSBM. Falls Lake is a little bit different position because under the legislative issues we have had to sort of run both things at the same time. The fiscal note to offer a potential suggestion we could make sure that once OSBM approves that you are given 30 days before we to public

notice. We could make some arrangement so that you would be able to have enough time to view that fiscal note as it's been approved by the public process.

Jeff Morse: That would be very helpful but I do accept your comments. I understand why we do that and it makes more sense to me now. Thank you.

Tom Ellis: This is not the first time that this has come up. It's a problem when we send rules to public hearing and then all of a sudden somebody says do you know how much these are going to cost. Then we answer "no" and they say it's going to cost $600 million or billion dollars, or whatever. We are out there in public hearings with these numbers whether those numbers are accurate or where they came from we don't know what the rules are going to cost. It would be good to know ahead of time. We make some changes to the staff's recommendations but oftentimes it is not very much. We're not going to change the science unless somebody has a lot better chemistry background than I do. When EPA says you are going to do it then that's what we are pretty much going to carry forward in the procedure that they do. If we could have the economic information before these meetings, we would know what it is going to cost. If we make no changes then the work is already done and it goes to the proper state office to get approval. If we make changes then most of it is already done and there can be some changes to bring it up to date before it goes out. But it's nice to know when the public faces you on how much you're telling them they are going to pay.

Dr. Peterson: I have some uncertainties about the science and cost as well. Some of the things that I'm interested in are sample numbers for what this means for representative areas and communities in the state, some indication of whether the levels that are required are detectable, some indication of whether they're achievable and some indication of the cost of the program. Also some indication of rather than simply numerical standards I'm curious to know what we think the biological improvements are from moving from present to the new standards. It's ok to say this is what we have to do but it's nice to connect to a rabbit or a blowfish or whatever. To me, there's kind of a disconnect here because we're after improving the environment and I can't honestly say what aspects are we going to have that are better and what services that the public values are going to be enhanced. In this philosophical discussion I ask this question. Can the costs be computed without staff going through and choosing representative areas and then doing the computing to see what numbers will apply to the various metals in computing those costs?

Connie Brower: In the case of cadmium one of our more sensitive creatures is a hyallilestica. I can assure that it would be very difficult for us to count the dead hyallilos on a day or to determine that five more of them lived. However, I think what you're asking is can our biological assessment look at every single one of those and I would say to you that is very difficult. That's extremely difficult, however, under the Clean Water Act this is the way we have to do it. We have to have every water quality standard ultimately approved by the EPA. I don't know how we can literally look and see how many of some of these creatures are surviving or not because it would be very difficult. But in the long run we have to trust that science and that background has gone through federal approval and now would go through state approval to adopt it and that is where we are.

Dr. Peterson: We have taken a step. I understand we use standard toxicity assays and assays are chosen often to be some of the more sensitive so we can be assured that the others will be happy if we can make the sensitive ones happy. But some further discussion of where that leads you to in salt waters we use oyster larve. It's pretty easy to take that as an assay and say look how much money we are spending to restore oysters and the Ecosystems Services they provide. In explaining these to the public that linkage of moving beyond what we have to do in the laboratory to what that implies for nature and the aquatic system is something useful to project.

John Curry: Perhaps there's a middle ground to that I would probably find helpful and maybe the others would too realizing that it is hard to do the fiscal note before you know the details of the regulations that are going out. It would be helpful to me if I knew that this is going to require at least municipal treatment systems to upgrade and make changes, maybe a very general discussion of what those changes might be. We all know that those are expensive undertakings and at least we would be on alert to what the consequences might be of some of some of these changes.

Chairman Smith: So even if we didn't have the exact numbers we would be aware of the sorts of steps that would have to be taken to accomplish what the proposed rule package is talking about.
Is that what you're saying?

John Curry: Right.

Forrest Westall: I know it's been mentioned obviously the standards that we have in place now were in the last Triennial Review. Did EPA approve those?

Connie Brower: Yes. Our last changes were predominantly human health.

Forrest Westall: These standards have been around. The aquatic epidemiology data has been around for years to base these on. EPA has done that because of North Carolina's continuing to convince them that this is the right thing to do and we have aquatic tox data that we run on, our effluence would show chronic/no chronic impact mostly for those. So is the impression or the general specific statement from Region IV is they draw a line in the sand and they have said they are not going to do this anymore. They are not going to approve the standards based on 50 mg/L.

Connie Brower: They do not believe the use of 50 mg/L is protective and that's something that I can bring to your attention. The use of the 50 mg/L has been in place for a number of years. At the time we, North Carolinians chose that 50 mg/L we were quite progressive because many of the states were using 100 mg/L which is sort of where laboratory tox tests are usually around 100 mg/L. So our use of 50 mg/L was quite cutting edge. It's just that the edges moved further and we have not moved with it. We now know that organisms are very sensitive to hardness and it becomes more toxic the lower it goes.

Forrest Westall: Procedurally if North Carolina were to adopt standards they would not approve they would have to promulgate their own standards in North Carolina.

Connie Brower: They have that option at all times.

Jeff Morse: To follow up you were talking about that we thought that and had established the 50 mg/L were our organisms surviving at 50 mg/L and are they continuing to survive at 50 mg/L? Do we have any evidence that degradation is being occurring due to our current standard?

Connie Brower: I don't believe that we have evidence that the use of the 25 mg/L would not be more protective or more adequately protective. I honestly can't tell you whether and maybe Jay or some of our folks would like to speak up. But we couldn't tell you that we have a square inch that we've studied that at 50 mg/L it's one thing or another.

Jeff Morse: You're saying right now we cannot defend the standard we have had in place for a number of years.

Connie Brower: There's more than one thing changing. That's one thing you need to be aware of. It's not just that we're using 50 mg/L and they wish us to use a more appropriate hardness in that formula. One of the things that is very important for you to understand is that for the cadmium, lead and others the national criterion has changed. So our current standard at 50 mg/L even if we still use 50 mg/L would still be dropping. It's not just the hardness is changing but the science behind it has changed. We've actually held on a long time and I've actually been pretty amazed that they have not asked us to do this sooner. We are not in line with other states and we aren't in line at all particularly for cadmium and lead. Those are our biggest ones.

Chairman Smith: Did I understand you to say that you have indications from EPA that they will not continue to approve a level of hardness at 50 mg/L for North Carolina?

Connie Brower: They have been very strongly wording that our 50 mg/L is not protective and their obligation to review our water quality standards packages say that they have to review the package in light of whether or not our standard is in line with national criterion, and it is not.

Dr. Larkin: I do recognize the need to find some way to understand the cost. We do have a way to understand it. It's just at the time we understand it is not suitable for everyone. I want to emphasize Pete's point though that in a cost benefit analysis you need to not only look at the cost but the benefit. It's incumbent on us to try to characterize the benefit in terms of biology and in terms of things that people can understand. We do need to be able to defend what we do in terms of benefit to the public. The better we can do that the better we will have accurate information on both sides of the equation to make the judgment that we've wrestled with all the time.

Connie Brower: Obviously that is very important to capture the benefit and I've spoken to one of our environmental groups and that to me is a very difficult thing. When we did the groundwater standards one of the things that we came across is that obviously arsenic is a carcinogen. To capture if we put this into place one less person would have cancer and to definitely prove that is all but impossible. Again we don't have many people volunteering to take arsenic to see if they get cancer or not. We have a similar thing with aquatic organisms. To

get them to raise their hand and say they're sick it's very difficult and challenging. The ultimate benefit is our waters flow and we're trying to protect all of our designated uses from degradation over a period of time.

Dr. Larkin: I really wasn't suggesting it was easy. I really appreciate the effort that goes into it on both sides of this equation.

Kevin Martin: Sometimes during the process before we end this discussion I would like to see copies of any and all correspondence that we've gotten from EPA indicating that they don't believe 50 mg/L is protective.

Dr. Moreau: The issues revolve around this question of hardness and the toxicity test.

Connie Brower: If copper and zinc are action level standards and someone has a potential to exceed that standard, then they have the ability to run whole affluent tox tests, and should they pass those whole affluent tests then they do not receive a permit limit.

Dr. Moreau: Is there any possibility that some cooperative method could be made to evaluate the effluents from these plants with a 50 mg/L and a 25 mg/L to see what changes might occur as a result of the adoption of the lower value?
Connie Brower: The test on which the national criterion is developed is done over varying hardnesses. Laboratory settings have a hard time holding the hardness of lab water below 25 mg/L, however in the mountains of our state we have recorded numbers of one, two, three, five, six, etc. We can't necessarily replicate that in a laboratory, if that's what you're asking. It is difficult for us to replicate whole lab water at 10.

Dr. Moreau: If you can't hold it to 25 mg/L how are you going to run the test to determine whether or not there is any affect?

Connie Brower: Again, that's why it is difficult. That's why we're trying to hold the floor at 25 mg/L. They have done some tests where they are able to hold the waters at lower hardnesses. They are few and far between which is why we are actually holding on to say to EPA that the formulas should not be used below 25 mg/L because we simply don't have the toxicity data to back it up. However with that said they are trying to see what happens in the natural environment. But it is very difficult in a laboratory setting to hold that level in lab water.

Dr. Moreau: But it seems to me before we get too uptight about this or cost or what is get some measurements from representative treatment plants across the state and evaluate what the consequences are of dropping that hardness level down. That shouldn't be that difficult of an exercise and it seems that is where the rubber hits the road.

Connie Brower: The permit limit as Jeff explained it would not be just effluent hardness. It's going to be a combination of the effluent hardness and the natural stream hardness in a mass balanced equation. If the hardness of the effluent is higher they will get benefit from that when they populate their permit limit.

Dr. Moreau: If they pass toxicity test are they home free for copper and zinc?

Connie Brower: Yes. Not others. They aren't action level because the action levels are based on whether something has variable toxicity based on other things, not just hardness.

Donnie Brewer: First Connie I think you have earned your money today. Some of the information is coming in from the dischargers. They have put a number on what they think it's going to cost them which is pretty significant. I'm assuming they have data that they are working off of. I am just wondering because earlier I heard the permitting group was looking at individual dischargers in terms of coming up with the cost analysis. Some of this information that's coming in if I just had a comparison of $75 million dollars what do you all think it is. If it's $25 million dollars I know there's something wrong. But if it's also $75 million dollars then maybe you all can share that data.

Connie Brower: We have not done the fiscal note yet. We have not begun because some of the information that we've received from these people contains some flaws based on their calculations. Because a lot of them are looking at something as if it's end of pipe at an effluent hardness of 25 mg/L. When you do a mass balance that is not necessarily going to be true. We will have to wait and get that information.

Donnie Brewer: That information wouldn't change no matter what we did. Whatever data they are working with is what they're working with.

Connie Brower: That has been questioned about the analytical part. Our laboratory certifications staff as well as the staff out at the lab, and experts in our metals analysis have looked at quanitation limits. What we normally see the cadmium current water quality standard is totaled at 2 mg/L. So when our permitting agencies receive data as long as it says less than 2 mg/L we accept that data because we've met the limits of the law. They don't have to report lower. Because they have not been reporting lower does not mean they cannot report lower. They just have not needed to do so because our regulations of 2 mg/L are acceptable. Now when we're moving from 2 mg/L to .2 mg/L we have to look where quantitation could possibly be reached by normal laboratories. This is not using some extraordinary odd brand new method that just landed here from Pluto. This is normal every day lab work. Our laboratory section has done a great amount of work on that. For cadmium we believe that the quantitation limits could actually go down to about .5 mg/L to 1 mg/L by normal laboratories across the state. That has been encouraged by EPA. They have spoken to Roy Byrd who is our supervisor in that section. They also believe that we should look at these permit limits and a conservative PQL. We believe for cadmium that where we normally have been seeing data reported to 2 mg/L that laboratories……

Commercial laboratories as a cost benefit we have to recognize that if someone is asking for it, build it and they will come, the commercial laboratories will start reporting lower because they know we want to see it. That's what happens. We believe fully that a lot of our commercial laboratories and our municipal laboratories will be able to see lower. They have not reported it, not because they are trying to hide anything but simply because we did not need to see it. For silver we have had that investigated about .5 mg/L is reasonable. That has not changed and that standard is not changing but it brings to the point that we have not always been

able to see these. For lead our laboratories can see around 1 mg/L and many of our labs have not been reporting much lower than 10 mg/L because our current water quality permit standard is 25 mg/L. We didn't need to see lower so they didn't report it to us. We simply didn't need it. We believe some of that information has been based on assuming that something is half of what their current reporting limit is or some other means. Once they can really see it we will be able to know better what the cost will be.

Donnie Brewer: I think it would help me if I just had a generalized benefit, a narrative or something. It doesn't have to be so specific as five of them raising their hand versus ten, but if I had some idea where we think the benefits are coming from, verbalized, at least it gives us something to speak about.

Forrest Westall: I think it is important to go back to the rationale on the basis for making a change. Connie pointed out that when North Carolina adopted water quality standards a long time ago they used 50 mg/L that was cutting edge. That was what a lot of states were not doing and now other states are basing theirs on 25 mg/L or less. In many respects, this decision or proposal is to bring North Carolina in line with the other states and what they're doing. From my perspective the same argument that's being made on action levels is the same argument that we have always made. To hold on to 50 mg/L what we said was we're doing whole affluent toxicity testing at a multitude of facilities. Most everyone that would be affected by this we know that those facilities generally are not causing or discharging wastewater that causes toxic conditions either chronically or acute in the receiving waters, certainly chronically. As a result EPA has accepted that because we've had this kind of suspenders and belts sort of thing. But what this means is that you have to not only meet your aquatic tox limit or whatever on reproduction but also you have to meet these numbers, these numerical standards. As a result that's a double whammie to them because up until now they have been complying with this number and the tox requirement. Now they are going to be asked to comply with the new number that may be more restrictive than what they have now but still comply with the aquatic tox. Their argument simply is this. If our effluent is not discharging toxic conditions causing toxics in the stream then why should we have lower numbers on our effluent limitations? What is the benefit of that to aquatic life? North Carolina should be very proud of its program. We have had a very strong program long before most states had whole effluent toxicity. Long before most states had quantitative standards in the stream we had them. This is to bring it in the same line as what the rest of the states are doing. But the questions we're asking is that something that we should do and what is the benefit and cost of that? I don't think we have good numbers on the cost yet and the benefits are going to be very difficult to do, but at least we can understand what we are spending the money for. It's to reduce the potential of having toxic effects in the stream outside of whole effluent toxicity. That's what we're doing.

Donnie Brewer: One thing we know about is the cost which will probably go up and that cost will be passed on in terms of the water and sewer rates. So everybody will be paying that

Chairman Smith: We have a motion by Dr. Moreau and a second by Dr. Peterson. Is there anyone else that would like to speak?

Marion Deerhake: My question is completely separate. On arsenic is the threefold increase in the chronic arsenic based on new aquatic toxicity data and you pretty much dismissed it because of the human health number? Are we saying a hundred percent that these numbers will never be applied?

Connie Brower: The human health is going to be the driver. It has to be and there's really not an option. Our 50 mg/L was put in place based off actually human health. It's in the aquatic life portion of the rules but it was human health based and put in as aquatic life.

Marion Deerhake: What's the new number based on?

Connie Brower: The new number is actually the national criterion and it has been the national criterion for a number of years for aquatic life protection. It's one of those things that where EPA asked us to update everything. Well we were more protective at 50 mg/L but this is actually more scientifically correct as far as aquatic life is concerned. But the human health of 10 ug/L will remain in effect and it will be the driver for the permits.

Marion Deerhake: I would just be cautious about using the words dissolved and bio-available synonymously. It's replaced in one place in the rules and also there are also multiple places where you describe hardness as calcium carbonate or calcium magnesium. You may need to restate that so there's no vagueness in terms of what's added to what.

Connie Brower: I might need to get with you on what exactly you are saying.

Tom Cecich: Before we vote from a procedural standard point we had discussion of the timing of the fiscal note, I want to confirm assuming that we go to public hearing that the note would be released to EMC members before that actually occurs. Did I understand that correctly?

Connie Brower: It's a public document. The Office of State Budget Management has to approve it before our folks at OAH will accept our rule package to go out to public hearing. So we can notify EMC when OSBM approves that document that it meets state requirements for assessment of fiscal impacts.

Donnie Brewer: Could we get for information purposes what you send to them before it is approved?

Connie Brower: Sure.

Chairman Smith: asked for a vote on the motion. Hearing no other discussion the motion passed.

The addition to the today's agenda comes from the Renewable Energy Committee and it has to do with the report coming from that committee on woody biomass and a set of recommendations going to the General Assembly.

Dickson Phillips: As you understand Senate Bill 3 the Representatives Renewable Portfolio law has set up a set of requirements of generation for electric power through renewable resources. Those goals start in 2012 and by 2021 a requirement to produce 12% of power through energy resources. The law defines renewable energy resources in a paragraph that is somewhat unclear on a couple of points and on the particular point that we are dealing with here, which is the use of woody biomass for renewable energy resource. It is somewhat unclear but just to set the frame here. It is going to be critical in meeting the goals under the N. C. Renewable Energy and Energy Efficiency Portfolio Standard (adopted 2007) law to make substantial use of wood for power generation. Therefore we have been undertaking on the Renewable Energy Committee to assess as best we can what the likely impacts could be to our forest resources from this increased demand from the state created market under the REPS law. An important additional factor is that in addition to the demand for wood for power generation of the Reps law there is also going to be a demand for the use of wood to generate biofuels which has a separate state mandated goal of 10% of biofuels by 2017. We have undertaken with the assistance of the Solar Center at NC State since last August to conduct a series of meetings with a Technical Advisory Group which is composed of a set of well representative set of folks from the power industry to the forest products industry to academia to state government. The Division of Forest Resources has participated as well as the planning and policy offices. What we have generated out of that process and what came through the Renewable Energy Committee yesterday is a set of findings and recommendations, that really represent a set of policy recommendations for where we are saying the state needs to go to ensure environmental protections from unintended and adverse impacts on our forest resources and related ecological benefits of our forest resources. We did not go down the route of a set of specific statutory recommendations at this point. We don't anticipate that the legislature is going to be undertaking to get back into Senate Bill 3 this term. There are also other energy policy initiatives ongoing in the state that we anticipate will come to fruition by the next legislative session in 2011. At this point we wanted to capture our findings and conclusions from the Technical Advisory Group process, get those to the legislature and out for further comment and use by stakeholders and others who are interested in this issue. The basic frame of what we are looking at is really on the impacts on the forest resources. It's very difficult to say exactly what those impacts will be but it is a reasonably strong conclusion from the Technical Advisory Group process that these new markets which are state mandated will be game changers in terms of the demand for use of wood in the state. It is known both from experience here and elsewhere around the world that if you don't attend to your forest resources with a view toward sustainability that certainly adverse consequences can result. In our state we have no existing regulations that require that forest resources be harvested and managed for sustainability as to forest productivity. We do have a set of legal requirements that are protective of the water quality in relation to forest harvest practices. They are called Forest Practice Guidelines. There is a set of voluntary BMPs that are used to ensure that water quality is protected. The best information is that our rules seem to be effective in that regard. There is however, concern among some that with the greater pressures from these new market demands and also perhaps in conjunction with the greater interest in extracting all or a greater proportion of wood in connection with the harvest that there could be new pressures on water quality as well as new concerns about wildlife habitat benefits of residues that are left in the forest. The longer concern will be soil nutrient values as well as retention. That is one set of issues that we tried to make some recommendations concerning. In addition as I mentioned, the REPS law was actually unclear about what wood resource is eligible to be considered as a renewable energy

resource. The significance of that is whether or not the generator will get credit for using the resource. The law refers to renewable biomass resources including wood waste and renewable energy crops along with some other things. So the question presented was whether the law intends merely for wood waste which has its own definition issues. But I think we generally are understood to refer to residues that would be left in the forest after harvest and waste from forest products industry manufacturing processes. Also, such things as debris from clearing that's not done for forestry harvesting purposes or whether any wood resource would be eligible and says specifically could you do in a timber harvest of whole trees specifically for the purpose of burning it for wood power generation. That creates another order of issues from the environmental perspective because we then get into issues of pressures on conversion, from natural forest to plantation, potential for more clearing without replanting and issues such as that. We do not suggest and in this report don't suggest the EMC take a position on what the meaning is of that statute but rather to point out that the definition that is adoptable has some environmental consequences. The reason that we do not take a position on that is it is not really in our charge to do so and the Utilities Commission has the authority to implement this law. In the pursuance of that authority is making decisions in relation to individual permits whether a proposed fuel source is going to qualify. They have not yet taken a position on specifically the question of whether whole wood harvested for power generation would qualify. They have taken a position in some other permits that would suggest they're inclined to a broad interpretation but they have not yet actually addressed the issue. Although they have a couple of applications before them that do present the issue. What we have done is basically to identify that is a significant issue and strongly recommended, particularly if a broad approach is taken which is to essentially allow any wood resource to be used that we be sure to have requirements in place that will ensure that those harvests occur pursuant to some sort of management plan that will address ecological sustainability as well as forest products activity. In light of the absence of any such requirements in a current law and the fact that this is anticipated to be a significant factor in the end market. One of the reasons is difficult to say exactly what will happen is if we did nothing there are many factors that are going to affect this going forward. There are federal policy issues that are going to play a significant role. There are foreign markets that are already affecting us but nevertheless we recommend that it be front and center in consideration of going forward that we ensure that we do not go about this process without adequate protection. One of the issues raised in the Renewable Energy Committee yesterday was concern that there are topics that are not addressed in detail in this report such as a full analysis of the air quality impacts and related to that potential human health impacts from burning wood for power generation. That led to as part of the motion approving our report coming out of the committee that led to and included in that motion that we call this an interim report. I didn't say so at the time but I have concerns about that language because it implies that this is there but you really don't need to ready it because we will be coming back with something later. It seemed to me that one of the reasons that suggestion was made was that we had previously titled this report as an Evaluation of the Natural Resource Impacts. That's the title we adopted fairly a long time back before we had really finished it and we now realize a more accurate title would be to say that this is finding the recommendations concerning the forest resource impacts of woody biomass industry. That's what we have really tried to address. That's what the TAG was concerned with. We don't think we are done with the topic even as to forestry but surely there are other aspects of the woody biomass industry that we do need to look at more. But with permission of the committee, I would like to bring this forward under that different title and eliminate the word qualifying

interim. I really want to thank Steve Wall on the policy staff for his very able work in creating the basics for this document. Don't make him responsible for anything in there that you don't agree with because there are others of us that did have a hand in it.

We have a set of written comments that are appended to this report that include from the North Carolina Forest Resource Association and the Division of Forest Resources.

Chairman Smith: asked for discussion and questions.

John Curry: It's fine with me if we change the name. Were any of the suggested changes that I mentioned on yesterday included?

Dickson Phillips: I think it is fair to say that all of the changes that were suggested were made. You got these by email and some of these changes were made at 10:30 p.m. I would recognize that you haven't had a chance to read back through but all of them that were made. We emailed a list of those changes so in your email you will find that we added language that clarified the scope of the report in addition to changing the title. We actually in discussions with the Utilities Commission Representative yesterday we previously had the statement the Utilities Commission was interpreting it broadly in relation to woody biomass. The Utilities Commission Representative said it really was an open issue so we made reference to that. We added language recommending that some of the ongoing studies pay attention to the Ecosystems Services values. We changed some of the other language on the individual wording issues. I omitted from my report that a significant part of our report is related to the importance of ongoing data collection and monitoring as this industry gets underway.

Motion (Tom Ellis): I would like to make a motion that we accept and adopt this report including the name change and transmit it on to the ERC. **Mr. Cecich** seconded.

Chairman Smith: asked for additional discussion.

Dr. Peterson: On some of the changes I wondered whether you had been explicit about the issues which we didn't talk about, specifically human effects of emissions into the atmosphere from combustion and potential for water quality degradation and habitat damage from the more frequent and more extensive clearing that may go on in harvesting wood for biomass as opposed to harvest for purposes of round wood or paper.

Dickson Phillips: I think the latter topic is adequately addressed. Part of what needs to be paid attention to is that the definition of whether round wood harvested for bio power purposes are going to be included or not. If you're just harvesting residuals the greater pressure for that could have some implications for habitat and water quality. We reference there that there is a study we are told that is actually being funded and is getting underway at North Carolina State University to look at least the wildlife habitat implications of greater biomass harvesting. We included that among the things that we really need to pay attention to. I think we just made a reference to public health as something we don't try to address here. I don't know if we spelled that out in as much detail as you would like.

Steve Wall: Just to follow up on this Dr. Peterson on the first page in the executive summary there is language in there about the scope of this report being limited not including looking at public health concerns and all potential environmental impacts, but rather the impacts on forest resources from potential increased harvesting and harvesting practice changes.

Dr. Peterson: Thank you. But unless I interpret the scope incorrectly on exactly what our mandate is, I thought our mandate was to look at alternative energy development and its impact on the environment and on environmental resources. I would say we fall short of what we need to do by that if all we are looking at is the impact on forestry.

Dickson Phillips: Our intention is not to limit ourselves but that's all we have done at this point.

Dr. Peterson: That's why I was hoping that taking a glance at this it's not very easy to rush around to computers with a minute left to go and make a vote. But I'm trying to look at it to see if it was quite clear the sorts of things that weren't included that are of interest and should be reported to the General Assembly as things of interest. I am not altogether convinced.

Chairman Smith: Are you asking us to delay for further reconsideration or further consideration?

Dr. Peterson: I would sure like to read it before I vote on it, especially when I have some concerns at the time.

Dickson Phillips: On that score we have received data on air emissions that are conflicting and are really a topic that we envision moving forward with the Air Quality Committee. So I foresee our taking that up in more detail but that was not the subject of this technical group which was focused on the forestry issues which was sufficient under themselves to provide us a lot of complexity to deal with. But I felt that with the change of the title it clarified that we were reporting on forestry impacts but we are not getting to the public health issues. We do note that some of the data suggest that the emissions and certain parameters are more problematic than some of the new coal facilities.

Tom Ellis: This is more of status report of the items that we have already discussed than a final report that says we have gone into detail to make the recommendations that you're interested in. So I don't see this as the end of all the discussions but just brings us to a status of what we have done thus far.

Dr. Peterson: When yesterday's title was status report I was comfortable with that.

John Curry: I'm not sure it was. Originally it was just report.

Dickson Phillips: It was titled Evaluation Report of a Natural Resource.

Dr. Peterson: Before yesterday's committee meeting we had the discussion of adding status to it. That seemed to me to end yesterday's discussion. But it's appropriate that **Dickson** raised the issue of changing that because it might be ignored so I understand the motivation.

Yvonne Bailey: I'm going to point out in the executive summary it does say that additional recommendations may follow as more data becomes available. There could be a phrase added to that so there's more stuff that's out there that we're looking at, that one example.

Dickson Phillips: The first sentence of that paragraph we say the report does not address all potential environmental public health or cultural concerns that arise from woody biomass combustion. We can be a little more specific although again we simply do not have data that I personally and sufficiently am comfortable with to say much about it at this particular point.

Chairman Smith: I suggest that on **Dr. Peterson's** point that we consider voting on what's before us with the understanding that **Dr. Peterson, Mr. Phillips** and Mr. Wall will get together to add to the executive summary to make it clearer what may be considered in the future by the Renewable Energy Committee and the EMC.

Dr. Peterson: That would satisfy me 100% although if **Ms. Deerhake** would participate in this too it would be more comfortable for me.

Marion Deerhake: I accept your invitation. My comment was that unfortunately I don't think the revision captured what I was trying to express for an amendment regarding Ecosystem Services. The terminology is not actually used in the section and I had requested it of **Commissioner Phillips** and Mr. Wall. So I would welcome the opportunity to sit down with you all and make sure you understood the revision that I was talking about.

Chairman Smith: With **Ms. Deerhake's** concerns about wording and **Dr. Peterson's** concerns about wording have we reached the point that we need to drop back and amend this document and have it come back before us or are we comfortable going forward?

Steve Wall: I do think that it is important. I do make a point up front that this is not a staff recommendation. This is a Commission document just so everyone is on the same page on this. I think it is important for this Commission to understand the charge that was given to the Commission by Senate Bill 3 and that charge was to evaluate renewal energy technologies and the potential impacts and look at where there are not existing programs or regulations that may have some bearing on how those technologies get implemented. So I think when we have an Air Quality Committee and a Water Quality Committee where there already exist programs and regulations that need to be looked at in conjunction with this I don't want us to get too far a field on what the charge of this Commission is.

Dr. Peterson: Is there not an existing Forest Practices Act and quite a great deal of work done to address forestry as well? Could that not be said of in the bulk of the report if you're implying that we shouldn't mention water quality and air quality issues as factors that we have failed to look into at great depth?

Steve Wall: I would respectfully disagree. I think there are water quality and air quality issues raised in this report. But that was not the basis of the report. Over the last eight months the committee has been meeting with the Technical Advisory Group and everyone has had a broad

understanding of what this report was going to be focused on. That is primarily about the harvesting impacts related to these new woody biomass facilities.

Dickson Phillips: There are the existing forest practices guidelines that are intended to be protective of water quality but that's pretty much where it ends.

Chairman Smith: We have a motion and a second. That motion is with the developed understanding that **Dr. Peterson, Ms. Deerhake, Mr. Phillips**, Mr. Wall and anybody else that wants to sit in, any other Commission member we will adjust the language to make it clearer what this report does not do the areas that it does not cover, so that we are comfortable with what we communicate with the General Assembly. Is everybody comfortable with that? In the meantime this gentleman is going to submit his information to Mr. Wall and Mr. Wall is going to pass that to all of us.

The chairman asked for a vote. The motion passed. He thanked everyone for a lot of good work.

So that you know the Environmental Review Commission meets on Thursday and I'd like for all of you to finish what you are doing before Thursday so I can make this part of the EMC's report to the ERC on Thursday.

10-15 Request to Approve Phase II Stormwater Designation Recommendations for Havelock, Kinston, New Bern, Smithfield and Wilson

Summary (Dr. Peterson): In 2005 and 2006 the EMC responded to a mandate from the EPA under the Phase II Stormwater Programs by passing Phase II Stormwater rules. Those rules were ultimately not codified but replaced by the General Assembly with Session Law to cover our obligations under the EPA Phase II Program. That included a number of designation that we had to consider and what needed to be done to come into compliance with Phase II for communities and municipalities and other broader geographical areas. We did that. It also required us to look at a number of smaller communities based upon their population, size, growth and whether they possessed a stormwater discharge MS4 and whether waters were degraded where that discharge occurred, therefore suggesting that they were contributing to degradation. That process is fairly a long process as you might imagine. We had an estimate from Tom Reeder that they were perhaps some 57 of those smaller communities but two of the water basins in the state. So the task is not one that occurred immediately. We had some discomfort with dealing with more stormwater stuff for a little bit of time as well so it seemed best to put it on our slower track. The track that staff has recommended and we concurred with was to do this according to the basinwide review scale. Those basinwide plans come up every five years. So ultimately we can get through a lot of these by going through the full cycle of basinwide plans. In that regard we had some catch up to do with the Neuse River Basin and we looked at five of these smaller towns that fit the criteria that suggested we needed to look at them, Havelock, Kinston, New Bern, Smithfield and Wilson. Staff presented evidence that these towns do a lot, perhaps more than they would be required under Phase II designation. Staff has done a lot of in-place discussion and education with these towns which is a great way to go rather than top down controls and we endorsed that. As a result of looking at what these communities were doing staff recommended and our Water Quality Committee approved for bringing to the full Commission

the motion that we do not designated these communities at this time and that we continue to have staff interact. Also, if we find issues that arise we bring that back to the Commission and that is my motion. **Dr. Larkin** seconded.

Chairman Smith: asked for discussion. Hearing none the motion passed.

10-16 Request for Consideration of Delegating Approval of Local Sewer Line Permitting Programs to the DWQ Director or Approval of the City of Mooresville Local Sewer Line Permitting Program

Summary (Dr. Peterson): The committee moved on the first part of this thereby ignoring the second part because having approved the first assuming the full EMC will do it, then there's no need to approve or discuss the second. The first being are we interested in delegating the authority which is now in the hands of the EMC to the Division of Water Quality director for delegating the approval of sewer lines to the local communities who asked for that. That has happened for a number of them without problems. There is a checklist that they need to look at, fill out and respond with in their request for that delegation. It's quite clear that the DWQ director has a lot more to say about this and will provide the kind of oversight that is required than probably we will. One particular proposal had triggered this generic question and that was a request by the City of Mooresville. Our committee recommended unanimously that we agree to delegate this authority to the DWQ director and she then can act on the City of Mooresville. So my motion is that we indeed delegate this authority from the EMC to the DWQ director for the purpose of permitting local sewer line extensions. **Mr. Morse** seconded.

Chairman Smith: asked for discussion and a vote. Hearing no discussion the motion passed.

10-17 Request to Adopt the Hearing Officers' Recommendation on the Proposed Revisions for Rules 15A NCAC 02B .0250 and Revisions to Rules 15A NCAC 02B .0248 and 15A NCAC 02B .0252 for the Randleman Lake Water Supply Watershed

John Curry: Mr. Brewer and I are the hearing officers. Sue Homewood of the Winston Salem Regional Office of the Division of Water Quality is going to make a presentation to us to remind us of some of the details on the Randleman rules. If you want to you can go to the appendix toward the beginning of page 4 and our recommendations are under VI.

Chairman Smith: Mr. Harrill also served as a hearing officer for most of that process.

John Curry: He was at the hearing but he did not participate in the subsequent discussions about the rules.

Summary (Sue Homewood): The existing Randleman rules have been in place since April of 1997. There are a number of local governments within the watershed that are delegated to implement the regulations. Staff's experience with the Neuse and Tar-Pamlico buffer rules when they were first passed and some field experience discussing the Randleman rules with the local municipalities, we have come to determine that the existing rules are difficult to understand and

implement. So the division has proposed some changes for implementation ease. Some of the major components that we hope to revise during the rule process was to incorporate a table of uses which all the buffer rules have a table of uses and in the Randleman the old time language did not. We wanted to incorporate a category under that table of uses for allowable projects with mitigation. We wanted to incorporate some variance language to clarify when a variance was justified within the Randleman rules and we wanted to provide some consistency with other buffer rules where we were able to. We started drafting these revisions in 1997 and in January 2008 you approved for us to go forward with the draft rules to public hearing. They were noticed on October 15, 2009. We had a public hearing in the City of High Point in November 2009 and the comment period ended in December 2009. At the public hearing we had 36 registrants, 3 people provided oral comments, one was in opposition of the rule, one was in agreement with the proposed changes and one did not have a specific opinion that they presented. We had 9 distinct letters and emails during the public comment period. The majority of the comments requested that the rules be redrafted to be consistent with the newly adopted Jordan Lake buffer rules. One person was specifically concerned with perceived weakening of these rules by the modifications that we were proposing.

I am just going to go over some of the bigger items. There were a lot of language clarifications in the major comments. With regards to consistency to the Jordan rules, when the language was originally drafted in 2007 we actually did propose language that was consistent with the Jordan rules at that time. As you know the Jordan rules have gone through a process over the last couple of years where changes were made. We redrafted these rules to again be consistent with the Jordan rules in fourteen instances. There were six cases where consistency was unachievable due to the differences in the original rules and tense. Any complications that would arise because the Randleman rules had been in existence for over ten years some of the changes to be consistent would offer difficulties in implementation. There was a concern that we were weakening the rules. The person that was concerned about this was specifically concerned that other watersheds would then lose protection and their comment was not within purview of these proposed changes. The forestry sector requested that we redefine managed forest and in a way that would provide managed forest to be existing uses. This is one of the cases where a modification to that definition would be inconsistent with all the other buffer rules as well as be very complicated to implement considering the Randleman rules have been in effect for ten years. There was a concern that we were exempting mining activities and the division believes that was just a misunderstanding of the language and the intent. Mining activities are now an item under the table of uses but there are regulations still that would protect buffers. So the watershed would basically remain protected through any mining projects. There was a request that the division provide additional training to local jurisdictions and the division is quite willing to coordinate training with the few local municipalities. There was a request that we require local governments to implement more stringent rules. The way that the existing rules are now provides their minimum necessary to protect the watershed. Local programs have the ability and it's optional for them to put in place more stringent local regulations. There was a specific request that we modify the Randleman rules to change the implementation authority to be consistent with the Jordan rules. The way the Randleman rules are written now is everything is delegated to the local municipality and in working with these local municipalities it has been determined that there are some activities extremely difficult for them to regulate. In fact, in the case of forestry there's a state statute that does not allow the local municipality to regulate them. So we have reverted the authority for these rules for agriculture, forestry and local municipal

projects specifically back to the Division of Water Quality. So the language that is being proposed is strictly out of the new Jordan rules. The existing Randleman rules right now have criteria that these buffers apply to streams that are identified on USGS topographical maps, soil survey maps or as found by onsite evidence. The division removed the language for onsite evidence from the draft rules that went out to public notice. Our other rules do not have that language and we were attempting to be significant with our other rules. As many of you know there has been a lot of discussion about how people are supposed to be aware that there are buffers on their property. One of the comments we received was that would be a consistent weakening of the existing Randleman rules. So the division went back and looked at the last couple of years of data. We started this drafting back in 2007 and over the last two years we had looked back at field site projects that I had conducted, and determined that 75% of the streams that were found in the field when an onsite evidence field visit was done we are not on either of the USGS map or the soil survey map. Those maps are developed for the agriculture agencies to use. They spent a lot of time in rural areas like the Neuse buffer areas to make sure those maps are accurate. When they come to urban areas they tend to not spend as much time looking for every little stream because they know that they are not going to need the maps to be accurate in those areas. Randleman watershed is a very urban watershed and it turns out that these maps are not as accurate as data we had previously found in the Neuse and Tar-Pamlico buffers. Once we looked at the new data that we had over the last two years the division has determined that comment that it would be a weakening of the rules was an accurate one. So we are proposing to revert back to the existing Randleman language. There will be no change in what is buffered with these new rules as what has been buffered for the last ten years. One of the discussions that the hearing officers and the division had was that because Randleman is significantly different from the other buffer rules in this condition alone, it may be that there are cases out there that it would be difficult for a landowner to be a 100% sure what was buffered until they talked to a regulatory agency. Therefore we have proposed to change the variance language to allow a little more flexibility in applying for a variance. There is a condition in all the other buffer rules that to apply for a variance you need to have purchased the property after the time the rules went into effect. In this case you can't look at a map and be a 100% sure what buffers might exist out there. We have proposed to change that variance language slightly for the Randleman rules. We had a comment that the local governments have to have someone on staff that has passed a surface water identification training and we clarified that is not just right now when we have passed these rules. But they have to maintain someone on staff that has had that training to the best of their ability. Rule .0502 is the mitigation rule. Because these rules did not have mitigation originally we had to adopt an entire new rule to address mitigation. There was some concern that by allowing for mitigation we would be weakening protections on the lake but mitigation is a way that it is only used in unique situations. It provides equal or better protection. It just relocates that protection from the site where they are proposing to impact a buffer. Buffers are protected elsewhere in a tradeoff. Those are the major comments. There were a lot of clarifications and language changes but those were the ones that are really the gist of the rules. None of these changes will be required to go back out to public notice. All these changes are within the consistency with either the existing rules or the intent of the draft rule.

John Curry: There are really two issues that we addressed as we went through the process that were concerning the two hearing officers. That is what Ms. Homewood mentioned about locating or the application of these rules. As you are aware in the other buffer rules the map

decides to question so if the stream surface water is on the map and the map shows your property, then you as a land owner or developer have to comply with the buffer rules. In this instance the staff conclusion and the division conclusion were that the maps in this particular area are not reliable. She indicated in 75% of the cases when they did a site specific analysis they found streams that were not shown on the maps. Although the site specific language was not in the draft rules Mr. Brewer and I concluded that we would prefer recommending that in essence the site specific language that was in the original rules be put back. The specific language stated "Surface water shall be subject to this rule if the feature is approximately shown on any of the following references" and it mentions the USGS map and the soil survey maps. It goes on to say "and shall not be subject if it does not appear on any of these references or if there is other site specific evidence that indicates to the division or local government the presence of waters not shown on any of these maps." The practical side of that is the property owner or developer is going to have to be sure either by hiring a consultant or having the government agency representatives that there is not an applicable stream on the subject property. That appears to be somewhat, you might say more stringent than the other buffer rules. So in order to compromise on that we have changed the variance language to make it easier for the landowner or developer to apply for variance, if in fact they do overlook the difference between these rules and the other buffer rules. There are certainly people that operate in various sections of the state that are used to looking at them, they make an assumption and they miss this difference. So applying for a variance would be a way to address that issue.

The second thing we spent time discussing was whether or not the changes that have been made between the draft that was circulating originally and what we are proposing today are significant enough that at least the argument might be made that we need to renotice and go through the process again. Ms. Homewood, you might mention the division opinion on that.

Sue Homewood: All of the changes either revert back to the existing rule now or are within the intent of the draft rules with language clarifications. We are not increasing the scope of the rules or the applicability of the rules beyond what either exists or what went out to notice.

John Curry: Also quite a bit of the language that was included in a post draft rules came from other buffer rules. In view of the purpose of these rules, in part was to create consistency to the extent that it was possible with these rules and the other buffer rules we were just taking language from…….for example DOT made a number of comments that suggested we use the Jordan rules and that was done in several cases. For that reason and the reasons that you mentioned it's our opinion that we don't have to go back to renotice.

Donnie Brewer: **Mr. Curry** and Ms. Homewood have addressed everything but I will make one point. That is on the variance I may characterize it a little different. We didn't really make it easier to apply for a variance but the way the rules were originally written after a certain date you couldn't apply for a variance at all. Because of the inaccuracies of the maps we decided that we would eliminate that restriction even if they brought the property after the rules were in effect. Because of the inaccuracies of the maps they could go through the variance process.

Jeff Morse: I'm assuming that the local governments and consensus that support these rules there haven't been that many objections from local governments and/or property owners. There seems to be a general consensus that this is the direction that they want to go for their basin.

Donnie Brewer: The only local government that commented on one of the issues that we were in discussion with was High Point. They wanted this specific site evaluation back in the rules.

Jeff Morse: Thank you.

Kevin Martin: One thing, Mr. Morse nobody has pointed out because the old history. The Randleman came about for a different reason and it was basically a condition of the 401 certification that was issued to build the Randleman Dam in order to allow it to be constructed to ensure protection of the water quality. So hopefully we don't end up doing with Randleman what we're doing with Falls Lake, Jordan and whatever. At this point if they were opposed to it I guess that means we would have to go tear the Randleman Dam out and get rid of it. This real purpose was not to implement new rules but to clarify some thirteen year old rules that were very difficult to implement and deal with.

Chairman Smith: My recollection is that in the variance section you included a short provision that allowed a land owner to apply for the variance even if the land owner had bought the property.

John Curry: Let me read that language and perhaps that will clarify it. It is actually language that we removed. This is under the variance procedure. We took out the language that said "the applicant did not purchase the property after the effective date of this rule and then request a variance."

Chairman Smith: Right. That was my question. I was saying it in the affirmative rather than in the negative. An applicant that purchased the property knowing of the problem could apply for a variance under the rules that are now drafted?

Donnie Brewer: What we're saying is if an applicant purchases property after the effective date of these rules he can still apply for a variance.

Chairman Smith: My question is why is that?

Donnie Brewer: Because we went back. The original rules had that in it. If you look on either the soils map or the USGS map that was your determination. It was clear. If you looked at the map and it was on there you had a stream or you didn't. We went back and added the site specific which takes a little longer and some things can fall through the cracks on that because there are so many inadequacies in maps. So if that took place we wanted to at least tell the public that they could ask for a variance. That doesn't mean that they will get it. It meant that they could apply for it but it didn't just shut them out completely because of that date.

Chairman Smith: Any other discussion?

John Curry: I think what the concern was the instance when either the land owner or the land owner's consultant overlooked the fact that site specific could bring them within the rules, and later because a government person comes on the property, or in some fashion it's determined that

there is a stream on the property that would bring them within the rules and they have acted otherwise up to that point. This still gives them the opportunity to get the variance.

Chairman Smith: The reason for this change is because of problems in the maps in the Randleman Basin. So this does not necessarily set the precedence for what we do in other basin rules?

John Curry: We thought you might be getting questions later in the week on this point and we wanted to give you enough information to be able to answer the question.

Kevin Martin: I think there is further reasons that maybe you guys didn't consider that there's cases where people inherit property after the effective date of the rule. Is that the same as buying it or acquiring it? There are also cases when you get a buffer determination done it is only good for five years. If you get development upstream in your property and get increased runoff the natural progression of streams are to headcut and move up into the watershed. So you could have bought the property before the effective date or after the effective date of the rule. You could have had a determination that you had no buffers and five years later your determination expires, Sue comes out and rightfully makes a determination that now this stream has migrated up into your property and you do have buffers. You would then be precluded from applying for a variance. Even if you could demonstrate when you bought the property there was no buffer.

Chairman Smith: Thank you. That is helpful. Do we have a motion?

Motion (John Curry): I make the motion that we adopt the rules with the changes indicated in VI, page 4 of the attachment. **Dr. Peterson** seconded.

Chairman Smith: asked for further discussion.

Yvonne Bailey: I just want to make the record clear that I didn't participate in the discussions and I am recusing myself from this topic.

Chairman Smith. Thank you. Hearing no further discussion the motion passed.

10-18 Request to Proceed to Public Hearing with the Proposed Falls Lake Nutrient Strategy and Request for a "30 Day" By-law Waiver

Chairman Smith: The Water Quality Committee considered this yesterday and approved both of those requests as you will hear from Dr. Peterson shortly. Mr. Crawley just reminded me that we need to do the 30 day waiver first.

Dr. Moreau: I make a motion that we waive the 30 day rule so we can consider this matter. Dr. Peterson seconded. Dr. Moreau stated that we have to state a reason for the 30 day waiver.

Chairman Smith: We are under a state Legislative mandate to have this issue back to the General Assembly by January 15, 2011 and as a result we are operating on a tight time table to

move this rule package through. Mr. Crawley, is that adequate reason? Mr. Crawley answered yes.

We have a motion and second and I appreciate both **Dr. Moreau** and Mr. Crawley reminding me that we needed to do this before we heard from John. There was no further discussion and the motion passed.
Let me also note that for the record that **Mayor Moss** has recused himself from this item and will not participate.

John Huisman: I gave an extended version of my presentation yesterday but I will try to be more succinct today and leave time for more questions at the end. I'd also like to point out that before today's meeting I did pass out a similar handout that I gave to the Water Quality Committee on yesterday. It was some rules with some technical changes and some revisions to what had been sent out to you prior to the meeting. In that handout are some discussion items that will be brought to the public hearing process as well as some points that were raised yesterday in terms of options and amendments to bring forth to public hearings.

I will start by giving a background of the Falls Lakes process, a review of the draft rules. These rules are largely similar in structure to the Neuse, Tar-Pamlico and Jordan Lakes so I will highlight where these rules are different from those strategies. I will give you the main requirements and try to highlight where some stakeholder input resulted in some changes and modifications. In terms of background the Falls Lake watershed is located in the upper Neuse River Basin which is 770 mile watershed encompassing six counties and seven municipalities. The lake serves 450,000 Wake County residents as their primary water source. For the purposes of the discussion today when I refer to the upper watershed I am referring to a portion of the watershed that drains to the lake located above NC 50. The lower watershed is the portion of the watershed that drains to the lake below NC 50. The lake itself is listed on the 303(d) list of impaired waters. It has chlorophyll-a violations throughout the lake and turbidity violations above I-85. I have shown this map as well in the past. This is just a colored representation of the percent of data exceeding the chlorophyll-a standard throughout the lake. This is not a model representation but it is an actual in-lake water quality results. The color coding shows the oranges and the reds and the warmer colors are higher percentages of the exceedances of the standard. The cooler colors which are the blues and greens are lower percentages of standard. This map is to largely show the variation of the standard exceedances highlighting the percent exceedances in the upper portion of the lake more in the range of 50 and 75% standard exceedance. Then it decreases as you work your way down the lake towards the intake. There has been a very active and engaged stakeholder process. There was a Technical and Advisory Committee that met fifthteen times to provide input on the two models that were developed to then form the strategy. We also held a stakeholder process and worked alongside with the Triangle J Council of Government and held nine stakeholder meetings and twelve additional subcommittee meetings to work on detailed rule language with the smaller group of stakeholders on different rule topics. The stakeholders have had two opportunities at this point to review the draft rules and provide comments. They were first provided rules in December and were able to provide comments in January. We then provided a revised copy of the rules to them and held our final stakeholder meeting on the 21st where they had an additional opportunity to provide comments back to us before we sent them in for your review. Along with that process we

conducted a programmatic assessment where the Division of Water Quality looked at different regulations that already exist up in the watershed to help inform the rulemaking process. We are also working on a fiscal analysis. We are happy to have several staff working on this an economist from the Division of Air Quality has been on loan to us which has been great to help us move forward with this. We plan on submitting to OSBM in April. Then the next step is to proceed to public hearings with these rules. As you know there's legislature requiring that the EMC adopt rules for Falls Lake by January 15, 2011.

There are some key stakeholder concerns that came up throughout the process for flexibility options, equity concern about the intake and obviously feasibility and cost. These were all things that were considered as we move forward into crafting the rules. The rules are patterned in large part after the Neuse, Tar-Pamlico and Jordan. The differences are that there are larger reduction needs in Falls Lake. For that reason we have incorporated an adaptive staged approach providing flexibility options the way the reductions can be achieved and incorporating trading. There are nine rules calling for reductions from point and nonpoint sources. There are also two Neuse rules amendments that go in concert with these rules. The purpose and scope rule is the heart of the strategy where it establishes the reduction goals, those being a 40% reduction in nitrogen and a 70% reduction in phosphorus relative to the 2006 baseline. The goals rule goes on to call for the entire watershed to be designated a critical water supply watershed, and it sets the adaptive management approach breaking the strategy up into two stages. Stage I calls for reductions watershed wide where those measures intended to achieve the water quality standards in the lower lake. Stage II calls for additional reductions in the upper watershed. The rule also calls for ongoing water quality monitoring in the lake for regular use support assessments to judge the progress of the strategy. There is also included in there which is a key stakeholder concern provision for potential remodeling the lake and also the reporting back to the EMC every five years on progress and highlighting other monitoring data and technology advancements, and potentially coming back with rule revision recommendations. There is ongoing concern from some of the stakeholders in terms of the remodeling provision that we have. On both ends some feel that it is unnecessary and shouldn't be included in the rules. Others feel that we should provide more specific language about calling for reexamination of the water quality standards in the upper lake before enacting Stage II requirements. This is something that is detailed on the handout, what DWQ is calling for in terms of the remodeling and what the concerns are on the part of the stakeholders. This is something that will be discussed further as we move into the public hearing process. Along with the goals rule we have a stormwater rule for new development calling for nutrient export targets to be met by new development projects 2.20 lbs/ac/yr for nitrogen and 0.33 lbs/ac/yr for phosphorus. It also calls for a 50%-60% reduction onsite of the untreated condition. This is in large part because of the need for reductions onsite because there aren't as many options for offsite offsets in the watershed as there are under these other strategies. So there is the need for additional reductions achieved onsite. There was stakeholder input on the implementation timeframe making quicker implementation. We provided an option in here for a smaller land disturbance threshold that people can provide comment on. We've also provided a provision of an LID option to achieve the requirements by achieving LID and also including an equivalent program provision where a local government can submit monitoring data and meet specific detailed criteria to prove that they have an equivalent program in place. Obviously with this rule there are concerns that have been brought up from home builders about cost. These will try to be captured in the fiscal note

and I'm sure it will be an ongoing discussion in the public hearing process. I did want to point out there's one thing that I spoke on yesterday that I was in error about. It was a redevelopment clause. We have a clause in here that calls for redevelopment in designated downtown urban areas of local governments to first achieve a 30% reduction on site before they can go offsite to buy down the rest. The thinking there is to allow some relief in these downtown urban areas where it's more difficult to get the reductions on site. I erroneously thought that it needed to be moved to a different section in my explanation to you. The understanding is that redevelopment in other areas that aren't in designated downtown areas are actually required to achieve under the rules of the 50-60% reduction onsite before being able to go offsite to buy down the rest. I understand that there was some discussion about changing that provision but in looking back at the rule I just had a moment yesterday where I misunderstood what was going on. It is in the right place in terms of that downtown 30% reduction.

Chairman Smith: I am not going to let John take all the responsibility for that. I'm the one who misread the rule and got John off track so he has been very gentle with me.

John Huisman: I also wanted to point out one of the directions we received from the Water Quality Committee was to bring forth the discussion in the public hearing process about where the redevelopment requirements should apply. Should they be held underneath the new development rule or the existing development rule? That's a question we will bring up during the public hearing process to discuss. There are pros and cons that have to be vetted out with that. For existing development there is a stage process, Stage I calling for reductions from the local governments throughout the watershed getting back to the 2006 baseline. Stage II is calling for additional reductions in the upper watershed. With Stage II programs local governments can propose a timeframe that would meet specific criteria laid out in the rule and provide revised plans to the EMC every five years. They mentioned yesterday there is some ongoing concern. We have incorporated a lot of language from the Jordan legislation in terms of what the EMC can require local governments to implement and what the different decision standards are for their programs. We've incorporated a lot of that language. There is some ongoing concern from stakeholders that we haven't incorporated everything. I have highlighted in that handout, in terms of the Jordan legislature what we have called for. I believe that this will be something that we will discuss moving into the public hearing process. There was also some additional technical corrections made in the draft rules and I've made some list numbers in terms of the rule numbering throughout the rule. There are three large point sources in the upper watershed and two smaller package plants that drain to the lower watershed. The point source rule calls for a stage approach as well with mass allocations for the three large facilities in the upper watershed. Those allocations are based on a 20% reduction in nitrogen and 40% reduction in phosphorus based on a 110% of their current flow in setting concentration limits for those two smaller package plants that drain to the lower watershed. In Stage II there will be the mass limits set for the three large facilities based on the overall reductions 40% reduction in nitrogen and 77% reduction in phosphorus that will be based on their full permitted flow. There was stakeholder input on having mass allocations for the Stage I instead of concentrations limits to allow them the ability to trade. In terms of technical corrections I had to clarify some language in the rule that point sources cannot only go to EEP to get nutrient offsets but they can go to third parties or private mitigation banks to get offsets as well. There is also some language that was presented late after the comment period that we will be bringing up during the public comment process in

terms of recognizing the difference between the allocations underneath the existing Neuse strategy and the allocations under the Falls strategy recognizing that there's a difference. Certain point sources may have an interest in selling their excess allocations to help pay for their upgrades. That's something that we are going to have to clarify and talk through a little bit more with them throughout the public hearing process. The agriculture rule is a stage approach as well. Stage I similarly calling for a 20% and 40% from agriculture, have the added requirement of residuals applications meeting the realistic yield expectation nitrogen application rates and running the phosphorus loss assessment tool. Stage II would call for a 40% reduction and 77% reduction which are collectively from agriculture. There is also a provision that if agriculture doesn't meet their Stage I goals that in Stage II they would be required to buffer and exclude livestock on pasture. In terms of stakeholder input, there's a strong desire to see this collective approach or similar approach to the Neuse and Tar-Pamlico. Here we have a collective approach with an added aspect of it being in a stage capacity. One point that was brought up yesterday was about Hobby Farms which was "can we pose or frame a question to bring to the public hearing process"? We have already gotten some input from stakeholders after yesterday's meeting and I've received a few emails. I do believe that we will be able to frame a question about how to define what a hobby farm is, what requirements should apply to them and making the distinction between commercial production which might be a big distinction between what falls in that category and what doesn't. Also, figuring out what rule it should fall under because a point was made that some developments or horse developments are specifically trying to attract small horse farms that might appropriately fit under existing development within the agricultural rules. That is something that we are going to have to talk about in the public hearing process as well. But I do believe we can frame a question to get that point.

The state and federal entities rule is similar to the requirements for new and existing development and existing for state and federal entities. The one distinction is the requirements for DOT. For new development DOT is required to meet the buffer rules for their road projects recognizing the unique linear characteristics of their road projects. For existing development they are required to meet a minimum of six stormwater retrofits per year. This is an increase from what they were required to do in Jordan. In Jordan it was three but here it is six, again recognizing the increased reduction needs. This is also something in recognition of stakeholder input about wanting to see more reduction from DOT. There were some technical corrections as well on this rule. Unfortunately, I had some rule numbering issues and it was inadvertently applying sections of the rule to DOT that were not supposed to. I have corrected those rule numbers.

The Trading rule allows this robust trading program for the different sources to sell and buy reductions from each other from the different sources. Included in the trading rule are some of the minimum onsite requirements which also refers to the requirements laid out in the individual rules. For example, with new development they have to look at a certain amount of onsite treatment before they can go offsite to buy down. There are also some provisions in the trading rule allowing local governments to develop this jurisdictional approach where they combine their point source allocations with their existing development allocations and figure out the most cost effective way for them to get the reductions from that combined allocation. There are some of the geographic limitations in trading. Because of the distinction between the upper and lower lake there are some requirements that impact in the lower lake and you can offset that anywhere in the watershed and it would benefit the lower lake. Impacts that are in the upper watershed must be offset in the upper watershed to benefit the upper watershed. Some local governments

have provided some language for us to consider that we need to bring forward and talk about some more in the public hearing process because there are some local governments that straddle the upper and lower watershed aspect and there are some points that they want to make they should have availability of using their offset credits anywhere within their jurisdiction. There are some problems with the language as proposed but I think it's a starting point for a discussion in the public hearing process that wouldn't result necessarily in a significant change to the rule.

The Fertilizer Management rule is largely an educational tool calling for fertilizer applicators, promote agriculture and commercial for turf operations to take a nutrient management training class or implement certified nutrient management plans within 3 years. Exempt from these rules are homeowners, commercial and industrial property owners who apply. They are largely captured through the Stage II stormwater rule for public outreach and education.

The Neuse rule amendments that go along with this are an amendment to the Neuse stormwater requirements. That recognizes the difference in the onsite reduction needs under the existing Neuse rules. There's a pound threshold that the developer needs to meet. Under the Falls Lake rules it's a percent reduction and a stricter requirement, and we're just recognizing that is what is going to apply the developers in the Falls Lake watershed just clarifying that point. In the Neuse River Basin rule amendment there's a few small pockets in the watershed that aren't water supply and this will serve to reclassify them as WS-V. This will also designate the Falls Lake watershed as a critical supply water supply watershed. This is just recognizing that the reduction requirements under the Falls rule are more stringent than what is required under the water supply rules. We are operating under the existing Neuse buffer rules and not proposing a Falls Lake buffer rule.

In the next steps in this process we are working on the fiscal note and planning to provide it to OSBM later in April. Once that gets approved we will take the draft rules to formal public hearing and comment. Again, overall target bringing rules back to you for approval no later than January 15, 2011 for adoption of rules. There were a few other directions that you gave me on yesterday in terms of the goals rule to change some language where it directed the EMC to take action as directed in certain points of sub item 5(d) to change the wording from "shall" to "may". We shall make those amendments before taking that rule out to public hearing. I wanted to clarify one other direction that we also got during the goals rule. It was to provide alternative timeframes in terms of Stage I and instead of it being ten years to be seven years. We can do that. In Stage II the request was to provide an alternative timeline of fifteen years. Looking back at the rules that are actually what we are proposing the timeframe for Stage II in terms of requiring full implementation. The twenty years is actually for the lake to achieve a standard. So the fifteen years will always be consistent with what you already have the Stage I seven years would be an alternate timeframe that we could provide for comment during the public hearing and would have to match in the other rules that have a staged approach listed in them.

Forrest Westall: I know yesterday in the discussion we talked about the redevelopment question and where that would fit underneath the rules. The one issue that I'm still trying to figure out in terms of whether the rules proposes or not. Obviously the local governments have to submit a plan for reductions that they had to achieve the goals that are in the rules. When they are doing that they are accounting for what they're going to do in the watershed. One of the questions came up was if you have an existing development that's redevelopment and that site is redeveloped in accordance with the requirements to reduce nutrients off of that site from the

existing conditions, do the local governments get credit for that in reducing nutrients from existing development? Because that property or land is in that watershed was or is a part of existing development and then it gets converted it has to meet the criteria for the redevelopment but in the accounting process does the local government get to take that as a credit in reduction and existing development?

John Huisman: I think there is going to be some more discussion in the public hearing process. The way it is currently laid out is where that's considered new development, meeting the new development requirements, but we have received some significant comments after the meeting on yesterday about it. Maybe there's a way to leave that requirement in the new development rule because that rule has a quicker timeframe for implementation, but figuring out from an accounting standpoint a way to credit it towards their existing development load reduction need. I think that's a very valid point and something that we need to take a closer look at in terms of how we implement it and how we credit it. I can see there is some ambiguity there and some room for us to clarify and maybe improve the way it's done.

Forrest Westall: I think in relation to what we said we amended I would like to see that as a part of that option before we put the redevelopment and how we would account for that and where the credit would go. Also, I would suggest as well for the agriculture part of it. I know there was a discussion before. When agricultural land is converted and it's considered new development you have to meet the new development requirements. That land comes off the books for agriculture and nutrients have to be reduced from existing loading that's coming off that site. That too is actually in reality a reduction in the property of the land area that was in agriculture in the watershed. Whatever nutrient reduction you got off that the agriculture community should be able to take some credit for that.

John Huisman: I will say that we have had some discussion of the existing Neuse and Tar-Pamlico strategies. I'll add that it is in spirited discussion about whether or not it should be accounted that way which it is, a 100% reduction or whether it should be reflected in a shrinking of the agriculture universe in terms of their land and just require their 30% reduction from that new universe. There has been spirited discussion on how that's handled. I imagine that we will be getting into that discussion as well moving into the Falls Lake strategy and I believe it has come up with Jordan Lake as well.

Dr. Moreau: I had a request from the land conservation people. Seemed like reasonable request to account if there's land acquired and put into conservation that preempts development which would otherwise be reasonably expected to develop within the time relevant time reframe, then that land acquisition preservation should be credited toward the reduction. The local governments are going to face both growth while this reduction from baseline is ongoing so there's going to be increases and decreases. Seems like a reasonable to put in at least for discussion in the public hearings the option of taking credit so long as that land passes the test of being reasonably expected to develop within the relevant time frame.

John Huisman: So bring that forward in the discussion for the public process?

Dr. Moreau: I would ask that you add to the option for discussion for public hearing.

Chairman Smith: Is there any objection to adding that as an option for discussion?

Dickson Phillips: I don't quite understand that. When you're talking about preserving land as currently undeveloped land, forest land presumably?

Dr. Moreau: its land that is currently undeveloped but is for the reasons of zoning other evidence that it is nearing development. If that land is acquired and preserved and passes that test, then the difference in loadings that would be with development and a preserved state would be credited toward their reduction.

Dickson Phillips: But couldn't that be seen as the loss of an opportunity for reduction that you have to achieve if you develop under the new development rule?

Dr. Moreau: No.

Dickson Phillips: You got to reduce from the pre-development.

Kevin Martin: But you're considering on a under developed track of land if it's forested you are getting rainfall which is going to infiltrate rather than runoff.

Dickson Phillips: I understand that.

Kevin Martin: You're going to get uptake by the plants and stuff and all of this. Unless you want to go to the step of saying, you think that we have the technology to treat to the equivalent level of an undisturbed forest. If we had that technology I'd agree with you but since we don't I think that benefit is for discussion out there to hear the pros and cons of that approach.

Dr. Moreau: I haven't had a chance to think all the way through this and exactly where it should be in the rule. Seems to me that it's something that's worthy of discussion in the public hearing process.

John Huisman: You both make very good points and we have briefly touched on this during the stakeholder process. I have heard both these points about the potential and then these concerns from accounting. It doesn't seem to make sense on the surface. Because of all these other requirements of we were working on I don't think we were able to fully vet out whether or not it would work. I do share some concern whether or not we would be creating credits and not really getting a reduction but as you propose to bring it forth for a discussion might be helpful to hear all the pros and cons before we come to the final conclusion.

Dr. Moreau: You got a hundred acres that's imminently developed and you take it out and maintain it in a preserved state you have aborted a very substantial increase. But we can talk about that later. I don't want to make an argument here.

Tom Ellis: I'd like to concur with that. I've worked recently with the Department of Agriculture and its Farm Land Preservation Program. What this can do is by working with a

whole variety of conservancies provide the economic benefit to the land owner such that they do not have to develop that property. This watershed may be necessary to designate as priority area for purchases because if the land owner can make his money off of having it conserved they would be glad to do that rather than try to develop and have to meet stringent stormwater and other requirements. So I believe that by prioritizing this area for such programs it would be a good move.

Ms. Deerhake: I was just going to support what **Dr. Moreau** said and perhaps carry it a step further. That is the opportunities for land use conversion to even better nutrient removal or nutrient reduction methods conversion of ag fields to forestry, for example.

Dr. Moreau: I would look at under existing developments some of those credits could be achieved under the way the rules are written now. But it doesn't address this imminent development.

Chairman Smith: Could we broaden what you are requesting for discussion to cover the point that **Ms. Deerhake** makes?

John Huisman: I believe so. We can frame the discussion the way to capture these different topics. Again, there are some challenges from the accounting standpoint but it is something that we have not fully explored but we can certainly bring it forward to talk about.

Jeff Morse: I'm also concerned about the potential cost that this is going to prevail on the upper and lower areas. One of the concerns that I've been hearing throughout this whole process has been a strong stakeholders group both from the upper and lower part of the lake. They worked hard to develop a consensus and working together. One of the concerns that I had heard and I don't know if it was discussed yesterday. There's a cost on the second stage that's going to be the biggest challenge for the local governments especially up in the upper section. Where you're establishing criteria now that in 20 or 30 years will still be applying if you're using the rules today that you've proposed, and what that cost is will be so high. You're not even sure what is going to be successful or not successful up to that point. There's a strong suggestion to allow the rules to have a staging point where at the end of the first stage the state can reevaluate what accomplishments have been made before setting the second stage goals. It makes a lot sense to me and I'd like to see that it be a major point of discussion for that. I might not be describing it as accurately as it needs to be but I think the concept is correct that by establishing those nitrogen and phosphorus limits all the way through to 2036 stage to the first stage, and allow them to continue after an evaluation has been made after the stage 1, look at what accomplishments have been made to that point, and see what best management practices are available, what the costs are going to be, see if there will be any attributable benefit before you lock into a second stage criteria of numeric issues. I don't know if I expressed it correctly but if you get my concept I hope you got what I'm trying to portray.

Chairman Smith: To what extent is there flexibility and the ability to adjust as BMPs improve or information increases. I think that is part of what Mr. Morse is getting at. One of the responses that I've heard in the past has been that would require a full new rulemaking process in ten years. I think a lot of people quailed at the thought of doing this all over again in ten years.

John Huisman: I agree that it's going to be a point of discussion moving into the public hearing process. I do think that it's something that we feel we have addressed in existing goals rule. We've seen those local government consensus principles and try to incorporate those in ways that achieve that end in terms of allowing this unprecedented stage adaptive approach where the goals rule does allow for a party to submit a supplemental model for the EMC to consider and to consider revising the Stage II requirements based on the results of that supplemental model. We've also committed to ongoing water quality sampling in the lake and coming back to the EMC every five years to report on new available data, new technology improvements and make any rule revision recommendations at that time. There are already things built into the rules that provide the ability to remodel the lake and look at technological advancements, and additional water quality monitoring data that we will be coming back every five years to revisit things.

Jeff Morse: I'm not sure that the regulated community feels that there are enough provisions in the language now that give that type of direction. I think during your public hearing process please see what you guys can work out between the regulated community and how we can establish a reasonable consensus between the state's interpretation and what the regulated interpretation is going to be because the regulated community is going to be the one to have to pass these costs onto our constituents and the preliminary cost that we're looking at is in the hundreds of millions of dollars, and we might not need to spend that kind of money in the second stage. There's got to be an avenue to make sure that we don't waste that money. That's my point. If you can work with the regulated community and develop that during the public hearing process you can reach a consensus I would appreciate that as a goal.

John Huisman: We will be. This is made very clear that we obviously see things a little bit differently and we know that it's going to be an ongoing discussion with them about it.

Chairman Smith: Other comments or questions?

Kevin Martin: You said yesterday when you brought the hobby farm thing up you didn't want to take on the Cat people but the hobby farm people have already started attacking me and I just wondered if we could sort of……

Chairman Smith: I going to tell them to start attacking you if you don't go along with what I am going to suggest.

Kevin Martin: They were saying that why are you picking on us. Why don't you make it broader to say "to capture nutrient loads from other sources not addressed in the rules"? The example they gave which I have no idea if that is true was a dog breeder who allegedly in the watershed has 300 dogs on their property at any given time, and their interpretation of the rule is they would escape regulation.

Chairman Smith: I'm thinking a 300 dog facility ought not to escape regulation in the rules. We certainly would like to have discussion on other unregulated contributors to the nutrient loading. Hobby farms is one of those and there may be a better name for hobby farms than hobby farms. But we talked about that at length yesterday in the Water Quality Committee

meeting. John, if you can make that question into something that includes, for instance a dog kennel that has a large number of animals. I don't know what other examples there would be.

John Huisman: We can do that. I did provide kind of an outline of a rough question on the handout and I certainly think there's ways for us to augment and grapple with that. I'm sure that stakeholders would bring that to the table for discussion, and again it highlights the point of where the requirements would fall under whether that's considered agriculture or whether that represents an opportunity for reduction credit for existing development by local governments enacting ordinances or some requirements on those types of facilities.

Chairman Smith: I like the way you laid that out in the handout. On the handout the changing of the word from "shall" to "may" there are four examples of that rather than three. John has those. Other discussion?

Tom Ellis: In going back to the hobby farm issue are you limiting to animals or are you going to look at your three acre garden as you mentioned yesterday?

Chairman Smith: We're going to try to frame the question so that it looks at both, animals and large backyard gardens.

Tom Ellis: My only suggestion is to take a look at how that fits into the Fertilizer Management rule where we already have homeowners exempt from having to do various things. You may want to include a review of that part.

Chairman Smith: That's a fair point. Certainly not trying to deal with the small garden that is at the same level as the amount of nutrients that might come off of a lawn. Other discussion?

Ms. Deerhake: I just had a small number of housekeeping things that I can show you later. Some things appear to be duplicates but maybe they're not. But the real comment that I wanted to make is on page 7 of 70. It's where you have "a listing of subsequent reports shall address all the following subjects".

John Huisman: Yes.

Ms. Deerhake: It's items 7 and 8. In seven it says results of applicable studies and monitoring of atmospheric nitrogen deposition. I would suggest that we insert after the word studies, modeling so that it's modeling and monitoring. Then on item eight projected reductions in atmospheric deposition based on, you have current modeling. If you keep it the way it is those two should be mutually exclusive. But my question on the current modeling is we don't have a baseline year identified like you do for water quality purposes, and I think we need to choose what the baseline year for atmospheric deposition is going to be.

John Huisman: Ok. I see your point. In terms of water quality we're talking about a 2006 baseline.

Ms. Deerhake: I'm not sure that 2006 data is available for atmospheric deposition. I think that it is 2002 that's probably the best we got from Sumac.

John Huisman: That's my understanding from the information that has been provided to us in 2002.

Ms. Deerhake: For completeness sake, I think you need to put that in there as well.

John Huisman: You mean about establishing a baseline?

Ms. Deerhake: Yes.

Chairman Smith: I want to go back to one thing we discussed yesterday. Either I didn't frame my question so that it was understood or I didn't understand the response or both, and this relates to new development. In particular, I'm on page 14 and the sentence there reads "at a minimum the new development should not result in a net increase in peak flow leaving the site from predevelopment conditions for the one year 24 hour storm event." I'd like to propose again that we add to that "or total volume leaving the site". If I understand that right we are talking about in new development trying to reduce the impact of runoff that doesn't work its way through the ground and get proper filtering, and that does add to the nutrient loading. Well peak flow is certainly a measure of that but there is all matter of runoff that flows that may not be captured in the number that is the peak flow, and that's the total volume. Do I have this conceptualized all wrong?

Kevin Martin: So far you got that right.

Chairman Smith: Let me have your response to an adjustment so that the sentence reads, "at a minimum the new development shall not result in a net increase in peak flow or total volume leaving the site from predevelopment."

Kevin Martin: Here's the explanation for that. If you take a wooded site and you're going to infiltrate in North Carolina on most of these soils there's pretty high infiltration on a forested site, so the vast majority infiltrates, moves offsite not as surface runoff but subsurface which is a good thing. The problem is if you do a commercial development convert those woods to pavement that infiltration goes to basically zero in areas where there's pavement. That's why we capture it and treat it but you can't force it to infiltrate. Now you've got to release it from those treatment devices. Now what we do is release over days of time to reduce the effect but there is a municipality I know of which won't name that actually adopted an ordinance to do what you have suggested, and when we pointed it out to them scientifically it couldn't be done the response was sounds good nobody is going to be checking so we will be ok. But you can't convert it from a forested site to an impervious site and not increase the total volume of flow off the property, if you are talking about in surface water. Now if you're saying converting it from infiltration to surface runoff that is ok because that's a different animal. But I take it to mean you're saying that if on a wooded site the only time you get any runoff from the site is when you exceed an inch or two rainfall within 24 hours and you want to do that for a developed site it's not going to be possible in this watershed, especially in the Triassic soils that we have in the

upper watershed. Now if you start getting more sandy coastal soils it gets debatable on some sites you may actually infiltrate that water.

Donnie Brewer: What you said is relevant. What kind of timeframe are you talking about?

Chairman Smith: Isn't that the same question I asked yesterday about by one inch of rainfall?

Donnie Brewer: The one year 24 hour thing you get with the storm event.

Chairman Smith: I am talking about the one that Mr. Phillips explored for considerable time after I gave up.

Dr. Moreau: The whole point of capturing that first portion of the storm is that the theory is that's where most of your contaminants are in that first flush, and that's what you're trying to capture. What is the purpose of controlling to keep water from running off of a site?

Chairman Smith: I've clouded this issue by bringing in two different sections of the rule. We got one on total volume and the other is the one inch of rainfall. Those are different issues. I understand.

Dr. Moreau: The whole point of the peak runoff is to keep you from eroding channels and other things downstream. That's the reason that kind of limit is on there. The volume control on capturing the first portion of the storm is to capture that portion which contains most of the pollutants. That's at least in theory where the theoretical base for that design whether that's true for all pollutants is debatable, but that's the theory from which it is based.

Chairman Smith: Let me ask a second question on the total volume question. What would be the downside of putting out for comment the option of writing in that total volume not to be increased above a certain percentage?

Kevin Martin: If you are just putting it out for discussion why not. The more discussion the better. Another reason to make sure we're able to reopen and look at stuff in Stage II is Clean Water Management Trust Fund did fund an experimental stormwater situation here in Raleigh for infiltration of stormwater from a shopping center site where you dig down into the sapperlite, where the soils are more permeable and who knows what the technology might allow ten years from now. My concern is right now we don't have the technology but I'm ok with putting anything out for discussion. I'm just concerned we might get a response back that "you guys are crazy" and that "you don't know what you're talking about."

Chairman Smith: I'm used to that response.

Donnie Brewer: If your intent is to say the volume that's unless you have this one inch 24 hour storm and right now undeveloped some of it is going through this infiltration but there's a certain volume that's actually leaving the site like diffuse flow, concentrated flow or in some manner. Now you are going to develop that site so you want to maintain that peak flow but you're saying over that first four hours or some time period the volume is not to increase which just means you

will have to store more water onsite and then release it over a longer period of time, that may control the amount of volume that's leaving the site immediately but you are always going to have more volume leaving the site eventually, if it's not infiltrating somewhere.

Chairman Smith: If it's not infiltrating somewhere, I take that point.

Dr. Moreau: You will end up building a big storage pond.

Donnie Brewer: The basis of it will get much bigger. I suspect that the point that Mr. Phillips brought up yesterday could have been more of an erosion issue if you had running water leaving. I don't know whether it was a permanent BMP or whether it was an erosion control basin that you were referring to. Those basins are only built to capture a certain amount of water. But what happens if you have multiple storms or larger storms than that and it's coming in at the bottom it's going to stir it all up. So you are not going to get as much settlement as you would get if you just had a one inch rain that would stop and then that water settles over a time period and then actually flows out. Unfortunately, that's just part of the design criteria. Now if it is the other case where you are getting the erosion upstream and it has flown through that is a different issue altogether.

Dickson Phillips: Could you also add the point about how does this interact with what's practically going to be required to achieve the nutrient reductions or won't you actually have to be in effect do more stormwater controls through that process than these minimal requirements?

John Huisman: I am not sure if I understood your question.

Dickson Phillips: In the new development you're going to have to achieve the nutrient reductions and require additional BMPs to accomplish over and above these minimal requirements.

John Huisman: I think what we are talking about here is the idea that pre and post hydrologic match from a site like that some sort of low impact development, that would affect or achieve those nutrient reduction targets

Dickson Phillips: No. That's a different issue. We kind of got off on this issue of how protectivity these basic stormwater requirements where you say you got to capture the first one inch. It basically amounts to a requirement that you do that one time and then everything down the road. If you have the one inch rain today fill up your basin, then you have another one inch rain tomorrow you are still in compliance if you capture that first one inch, even though the second inch the next day is going over the bank.

Les Hall: It seems to me that you're talking strictly about the hydraulics of the stormwater and you are hoping that by retaining the first inch, I agree you would get all the contaminants or a good portion of the contaminants in the first inch of rainfall. But you are hoping that by doing that and by having the right size basin you would actually reduce the pollutants or the nutrients particularly. I am not sure that always happens.

John Huisman: That's just the minimum requirement for the design of the BMPs. This needs to meet that minimum requirement. Removal efficiencies for the different site design and BMPs have to achieve that nutrient export threshold.

Les Hall: So the BMPs you have specified will do that.

John Huisman: We have different information than the BMP manual and we have talked about different BMPs that can be used to achieve those reductions along with site designs.

Les Hall: To give you some relief, Chairman the total amount of water leaving the site will be the same. It's just a matter of where it goes over land or underground.

Chairman Smith: I understand that. What I was working towards was looking at the opportunities to put limits on what goes above ground rather than what works its way through and gets filtered. I have pursued that as much as I'm going to today.

Dr. Peterson: In our presentation and discussion of it yesterday we made a big point about adaptive management and particularly that coming into play somewhere towards the end of the first stage of the two stage process. I interpreted that to mean something that maybe not articulated in the rules and I just thought it should be part of the process when we get there. That is once we have learned a lot by continuing to measure the impact of changes from the first stage I think it would be feasible to address the question of what level of reduction is actually possible in the upper lake. That is to say with all the money you might throw at it. It's quite possible and likely that we couldn't reach water quality standards in the upper portion of the lake. That question ought to be asked because it poses questions about how to allocate limited resources and what's appropriate for resources to go towards. That's perhaps a heretical attitude here but this seems like a system in which we predicted problems initially from the structure of the lake and its results in low flows and shallow areas in the northern part. I think it's likely that they are absolutely limits in depending on what resources we throw at it and if that issue and the philosophical fallout from that ought to be discussed somewhere before the second stage is upon us. That may not be what you meant in part by adaptive management but that's what I had in mind.

John Huisman: I do think that is something that we would need to revisit and address in those five year reports back to the Commission. Laying out those different things to report on, additional information, monitoring results and technological advances I think that it is hard to project these reductions so far into the future exactly how we are going to achieve some further reach reductions. I think that is where we envision how to tackle that question.

Jeff Morse: This is more of a philosophical question that I'm going to ask. I'm trying to get a handle on seeing how this gets implemented. In essence what you are saying of what direction we are going in the Falls and I see it moving up west is what we are doing instead of dealing as local governments have already dealt with point source we can capture industrial, commercial and domestic waste and treat it. What we're saying now is we want to capture all the rain water that falls and all the nonpoint source and convert it into a point source treatment process. I just can't imagine how we are ever going to get a handle conceptually and physically treating runoff

as point source and treatment, removing and measuring nutrients. I don't see how that's going to be possible economically. Am I looking at that correctly? Are we trying to treat all this rain water, all stormwater now as a point source in that same kind of mentality and physically do it?

John Huisman: I don't think it's necessarily treating it all to point source. There's definitely the idea of structural controls needed to help treat runoff but also the idea of enacting in practices that prevent nutrient being added to that runoff, reducing fertilizers, reducing the amount of runoff that we do generate and just enacting certain management practices that's not all about structural controls. The point source treatments are a big part and yes, there is an idea of structural controls for stormwater for agriculture, but there's also those practices that can be done in agriculture and new development that reduce their nutrient loading and isn't putting in a structural engineer BMP.

Jeff Morse: On the nonpoint agriculture and civil culture are your rules proposing mandatory requirements or BMPs at their discretion? Are they mandatory?

John Huisman: It's a collective compliance approach where agriculture as a whole has to achieve that 40% and 70% reduction and go out and find the best opportunities to put BMPs of their most cost effective.

Jeff Morse: Did that cooperative nature work in the Neuse with the agricultural division and the nonpoint division? Was that a success in the Neuse Basin when we started in 1995?

John Huisman: I come back each year and give the report to the folks and agriculture is meeting their reductions. We do an accounting every year and have an annual report. Yes there are still issues with the estuary as a whole from the Neuse Basin but agriculture is meeting their bid goals that we set for them.

Jeff Morse: Thank you.

Dr. Peterson: I would have answered that the same way that they have done a really wonderful job. I think that it has been cost effective because of the collaboration rather than the top down controls on that sector. On the other hand we haven't taken into account atmospheric deposition and the nutrients come along with that in a meaningful way so there's a portion of agriculture animal feed lots and animal agriculture that still needs to be melted in.

Chairman Smith: Other comments?

Dr. Moreau: There is experience with the response times. The problem is going to be seven years or ten years hence determining whether or not real change has occurred the estimates by U.S. Geological survey in work done in the Chesapeake gives it will take a minimum of nine years to see responses on some of these nutrients. Some of them are bound up in the soil as a legacy build up and the estimates coming out of there are that it would take somewhere around a decade to see some significant change. That's going to be a problem for your successor. The achievements that we are seeing in the Neuse are those that based on the implementation of BMPs, not on monitored outflows from those watersheds. There's a very real problem of

dealing with these nutrient problem. We're talking 45-50 years in the Everglades. We're talking like ten years from now we are going to see 40% reduction or 75% reduction of this. It's just not going to happen that way but it doesn't mean we shouldn't try. But we are probably in for the long term on this and there will be many revisitations of these issues as we move toward greater implementation. As a matter of fact, probably the most operative part of this is Stage I. I suspect Stage II is going to be completely revisited before we ever get to it. The rules that we're adopting today no doubt will be modified somewhere down the road as we allocate and as we face realities. Hopefully we get more than we think we will get.

Chairman Smith: Other comments?

Dr. Peterson: On behalf of the Water Quality Committee I make the motion that we take these rules out to public hearing. Dr. Moreau and Tom Ellis seconded.

Chairman Smith asked for further discussion.

Ms. Deerhake: Could you include my revisions about the atmospheric deposition modeling?

John Huisman: I got those. May I ask a question for clarification? Is the total volume not one of the revisions to go out for option for comment?

Chairman Smith: No it's not.

Jeff Morse: Are my comments for the staging something that will be considered as part of the change or what category were you talking about. You were talking about you were beaten up and you didn't want to bring it back up. Is that to be studied? Is my question about the two stage and not setting limits on the second stage considered to be in the same category of these revisions that we're talking about?

John Huisman: I think the best way to address that is that point has been raised by some of the local governments and we recognize that it's going to be something to continue discussions with. We've tried to incorporate those changes into the goals rule about the adaptive revisiting approach. But there are some differences in what they'd like to see versus what we've incorporated, and I expect us to continue to have conversations about this once we go into the public hearing process.

Jeff Morse: What's the difference between that and what the other revisions that you are adding? Is it a requirement, do you follow me?

Chairman Smith: **Ms. Deerhake's** suggestions were changes in the proposed rules rather than options going out for public comment. She wanted language in the proposed rules to be clarified in specific ways that she described duplication of some language, clarification of some other. There are a number of things that we've sent out that we as a Commission have decided to send out as two or more options for discussion. There are some things that are questions that have

been under discussions for a long time and are going to be under discussion. That's the three categories.

Jeff Morse: Then my question is can my comments be added as an option to the rules that are going out to not set the numeric numbers on Stage II. Could that be considered an option?

Chairman Smith: It could. I think that it is a substantial enough change like a number of the things that we did at the Water Quality Committee on yesterday would probably be better handled by a specific motion with specific language, and that motion would be put to us.

Jeff Morse: Then I put that in form of a motion.

Chairman Smith: Then, for me you would need to restate it.

Jeff Morse: I put in a motion that prior to setting Stage II's limits that the results of Stage I be reviewed and an opportunity for establishing Stage II results or numbers be considered at the end of Stage I.

Chairman Smith: Mr. Crawley reminds me that this is an amendment to the motion that is on the floor.

Kevin Martin: Is this to replace what we're sending out or an addition?

Jeff Morse: This is to be considered, another option to be considered.

Kevin Martin: Then I will second it.

Chairman Smith: asked for other discussion. Nine voted in favor of the motion and 7 opposed. **Mayor Moss** and **Chairman Smith** did not vote. **Mayor Moss** had recused himself from this item. The motion passed. That went out as an option for public comment.

Jeff Morse: Thank you sir.

Chairman Smith: Then that's the amended motion. Now we fall back on the original motion that was **Dr. Peterson** with a second by **Mr. Ellis** and **Dr. Moreau**. Any further discussion? The motion passed and the Falls rules go out to public comment.

Thanks to all of staff that has worked on this under a very tight time table with very impressive stakeholder process.

10-19 Presentation of Administrative Law Judge's Decision, Saint-Gobain Containers, Inc. v. DENR, Division of Air Quality, 09 EHR 1616

Robert J. King, III, Esquire of Greensboro, N. C. and John W. Carroll, Esquire of Harrisburg, Pennsylvania, represented the Petitioner. Mr. Carroll presented argument for not adopting the decision by the ALJ as the final agency decision and instead adopting the proposed decision

submitted by Petitioner that would not include the 15A NCAC 2D .0521 visible emission standard in the air permit. The position favored by Petitioner would reverse the ALJ decision recommending upholding the air permit as issued and instead strike Condition 2.1A.5 from the permit.
Assistant Attorney General James C. Holloway represented the Department. He presented argument for adopting the decision by the ALJ as the final agency decision. The position favored by the department would uphold the air permit as issued to Petitioner with the visible emission standard under 15A NCAC 2D .0521 included as a permit condition.

A motion was made to adopt the ALJ's decision, its stipulated findings of fact and its conclusions of law as the final agency decision. It received a second. Chairman Smith called for discussion or questions from Commission members. The Chairman called for a vote on the motion. The motion carried by majority vote.

After considering the whole record, written exceptions and arguments by the parties, the Environmental Management Commission, upon duly made motion and majority vote adopted the ALJ's decision as the final agency decision. This Final Agency Decision finds and concludes that there are no genuine issues of material fact in this case and that Summary Judgment should be granted to the DAQ on the issue before the Commission for final decision. The Commission concludes that the New Source Performance Standard for Glass Manufacturing Facilities implemented by 15A NCAC 2D .0524 does not contain a visible emissions standard and, therefore, the DAQ did not act erroneously as a matter of law in including in the permit the visible emission standard set forth in 15A NCAC 2D .0521.

(This information is on file in the Division of Water Quality)

10-20 Presentation of Administrative Law Judge's Decision, Jackson County v. DENR, Division of Water Quality and Duke Energy Carolinas, LLC, 07 EHR 2201; Town of Franklin v. DENR, Division of Water Quality and Duke Energy Carolinas, LLC, 08 EHR 0019

The contested cases were joined for hearing and Commissioners Peterson and Westall did not participate in the deliberations or decision in this matter.

On March 8, 2010, Petitioners, through Paul V. Nolan, Esquire and John F. Henning, Jr., Esquire, filed their joint notice of withdrawal of the Petitions for Contested Case and Notice of Dismissal. Upon the filing of the notice of withdrawal and dismissal of the petitions, there no longer existed between the parties any matter in controversy and the Commission concluded as a matter of law that this matter was moot. Therefore, the Commission, upon motion and unanimous vote, Ordered the contested cases dismissed and the matter closed.

(This information is on file in the Division of Water Quality)

10-21 Presentation of Administrative Law Judge's Decision, Sidney Bruton, III v. DENR, Division of Air Quality, DAQ 09-114, 09 EHR 5351

Petitioner Sidney Bruton, III appeared in person and presented argument not to adopt the ALJ's decision as the final decision and not to uphold the civil penalty assessed for the open burning violation. He argued that, although he decided the best method for removing the wood from the two trailers was by burning it, his intention was to recycle materials and to reduce the waste going to the landfill.

Assistant Attorney General James C. Holloway represented the Department. He argued that the ALJ's decision should be adopted as the final agency decision and the civil penalty upheld for the open burning violation.

A motion was made to adopt the ALJ's decision as the final agency decision. It received a second. Chairman Smith called for discussion or questions from Commission members. There being no discussion, he called for a vote on the motion. The motion carried.
On the basis of the whole record and by duly made motion and vote, the ALJ Decision is adopted in full as the final agency decision. Summary judgment is granted to the Department and the civil penalty in the amount of $1,000.00 and the $318.00 investigation costs are AFFIRMED.

(This information is on file in the Division of Water Quality)

III. Information Items

10-03 Special April EMC Meeting to Address Greenhouse Gas Tailoring Rule

Summary (Joelle Burleson): Back in January we came before the Air Quality Committee and the full Commission was invited to attend that meeting in which many of you did. At that time we anticipated coming back to this meeting with draft permanent and temporary rules to address greenhouse gas tailoring needs here in the state in response to EPA's recent actions to regulate greenhouse gases from various sources. Since that time on February 22nd EPA gave us the first glimpse of what they expect to do in their final tailoring rule. Administrator Jackson sent a letter to Senator Rockefeller in response to some questions he and other senators had posed. In that letter she detailed some actions they plan to take as they release the final rule. By April 1, 2010 EPA plans to take action to ensure that no stationary source will be required to obtain a Clean Air Act permit for GHG emissions during this calendar year. Additionally, EPA plans to phase in permit requirements for large stationary sources for greenhouse gases in 2011. Only facilities that have to apply for permits for other pollutants will have to address greenhouse gas emissions during the first half of calendar year 2011. During the second half of the year other large sources of GHG emissions would be phased into the permitting processes. For the calendar years 2011 through 2013 the threshold for permitting is expected to be substantially higher than proposed. The proposal last year indicated a 25,000 ton GHG threshold for applicability. In this letter EPA did not specify what they anticipate the higher threshold to be. In addition the smallest sources of greenhouse gases are not expected to be required to undergo permitting before calendar 2016. EPA is planning to issue prior to March 31, 2010 an interpretive ruling on when greenhouse gas requirements will actually become effective. When we were here in January the ruling on the greenhouse gas requirements was one of the drivers that had brought us to you with a potential for a request for a special meeting in April. At that time EPA was planning to finalize all requirements and permitting requirements would be effective by April 1, 2010 for the 25,000 ton plus sources. EPA still plans to issue a light duty vehicle rule by March 31, 2010 and plans to

issue the tailoring rule following that although it may be a bit after April 1, 2010. In addition there are some related actions on greenhouse gas emissions and there have been some suits filed on the endangerment finding that EPA made. Senator Rockefeller introduced legislation earlier this week, Monday, to suspend EPA's authority to regulate greenhouse gases from stationary sources for two years. This continues to be an evolving issue. We will continue to work toward being prepared to provide you rules that address the needs that result from the final tailoring rule as soon as possible. There appears to be, from a preliminary look at rulemaking scheduling, the possibility of coming back in May and having rules effective by January of next year, although there may be some tight turnaround timeframes in that schedule. If there are any glitches it could be a little bit later next year before we would be able to have rules effective. There were a few questions yesterday and if there are any today I would be happy to take them now.

Chairman Smith: I've asked for a coal ash update and Mr. Bush and Mr. Simmons are here to update us on what's going on in North Carolina as to coal ash. We are not meeting in April for the greenhouse gases. There is no need for a special meeting.

10-04 Coal Ash Update

Ted Bush: We wanted to spend a few minutes today providing you with a brief update on coal ash storage, use, and disposal. You will hear from three divisions. I will be representing the Division of Water Quality, Ellen Lorscheider is representing the Division of Waste Management and Jim Simons is representing the Division of Land Resources. You'll recall that this issue came to light during the past couple of years largely as a result of the catastrophic failure of a dike wall at a Tennessee facility. That incident yielded significantly increased public attention to coal ash storage and coal ash disposal. As a result, there was a request to keep the Commission updated as to where we are with respect to DENR's activities with facilities of this sort. We do have several new Commission members so I'll spend a couple of minutes reviewing some of the items that we've covered.

We briefed the Commission in March and again in September of last year. We talked about some of the requirements in terms of North Carolina's environmental regulations. You will recall that the groundwater classifications and standards that are indicated in the 2L groundwater classifications and standards document are applicable in these sorts of situations. Degradation of groundwater and compliance boundary requirements are addressed in that set of regulations. Those requirements, with respect to groundwater protection issues, are enforced by both the Division of Water Quality as well as the Division of Waste Management in their respective program areas. There are some allowable uses such as fill material, soil additives, road overlay, stabilization bedding materials, etc.

In 2000, EPA gave consideration to including coal combustion products under the RCRA requirements. As a result of those considerations, members of the utility industry implemented a voluntary groundwater monitoring program. They proposed voluntary monitoring that was put in place in 2006. In 2009, once some of the additional interest began, the Division of Water Quality requested and received information and data on the utility companies' voluntary monitoring and the current status of things with respect to that monitoring.

One of the areas where DWQ wanted to establish a good clear understanding for EMC members today is with the concept of compliance boundary as defined in the 15A NCAC 2L rules. Those compliance boundary requirements generally will apply to waste disposal sites that are permitted as a part of the environmental protection activities handled within DENR. The compliance boundary requirements specify that for facilities put in place or permitted today, the compliance boundary would generally be located at a distance of 250 ft. from the waste application area, or 50 ft. inside the property line, whichever is closer to the disposal area. For some of the older facilities, which would include some of the types of facilities with ash disposal, those requirements allow for that compliance boundary to extend out to 500 ft. away from the waste application area, and in some cases all the way up to the property line. The regulations further specify that at a point halfway between the compliance boundary and the waste application area, a review boundary is established. That review boundary is put in place basically to serve as a warning point so that you have a basis for determining when action is necessary prior to contaminants migrating all the way to the compliance boundary.

There have been quite a few items in the press, as well as some inquiries that have come in recently, dealing with how the department is handling some of the exceedances of groundwater standards for monitoring that exists on some of the utility company sites. Exceedances of groundwater standards do not necessarily mean that there are violations that are enforceable by our regulatory agencies. Exceedances at the review boundary do require some level of assessment, basically to determine the extent of the problem, and whether or not there is the option of taking corrective action that would allow for correction prior to contaminants migrating to the compliance boundary. Exceedances that are observed or predicted at the compliance boundary do require corrective action in accordance with 15A NCAC 2L .0106(the corrective action requirements for groundwater violations).

With respect to the information that has been received from the utility companies thus far, we've received data for 111 wells,(most of which were put in as part of the voluntary monitoring program). In the case of the Wilmington area Sutton Facility the wells are required in the permit. If you look at where potential violations have occurred you see just inside the waste application area 44 of those wells are located. Between the waste application area and the review boundary you find a total of 44 additional wells. Between the review boundary and the compliance boundary there are 13 wells and then outside the compliance boundary (which are really the wells that represent information of concern to us) there are 10 wells. Those 10 wells represent potential violations that could be enforced as part of our regulatory requirements. There are 10 out of the 111 wells located at that point. Based upon that information the utility companies have been directed to place wells at the compliance boundary to provide additional information about the compliance situation for all the facilities with ash disposal areas.

Five out of the 14 DWQ permitted facilities are going to be up for renewal in the upcoming months. The plan is to require that groundwater monitoring be added to those permits on an as-needed basis. We have requested that the utility companies submit plans to place wells at the compliance boundaries for those facilities. Both Duke and Progress Energy have submitted information as of last month when they were asked to provide the information to our agency.

The Division of Water Quality and the Division of Waste Management have ongoing discussions and are looking at possibilities for combining compliance boundaries for adjacent activities. You will also recall from our earlier discussions, that there are many types of activities on these sites. Many of the activities involve waste constituents that are very similar in nature. Therefore, the activities would be expected to have similar impacts on the environment (if they were to have impacts at all). Having some sort of system in place to look at each facility as a whole is something we are hoping to be able to do. We are expecting both Duke and Progress Energy to continue to submit groundwater monitoring information and we will continue with the evaluation of that information.

The divisions within the department are continuing to perform site visits. There are site visits in some cases that result from permit requirements, in other cases, they result from ongoing concerns (things like structural integrity issues with respect to the dike wall, etc).

In terms of federal considerations, EPA is in the process of initiating new rules to deal with the coal combustion process and coal combustion products. The initial plan was to have that rule in place by the end of 2009. That did not occur and the new expected date is by the end of 2010. Both the Division of Water Quality and the Division of Waste Management will continue to work with EPA and the utility companies in determining how to address any of the proposed changes.

Ellen Lorscheider: The Division of Waste Management regulates four different kinds of landfills. The Construction and Demolition Landfill are lined by North Carolina statutes. Municipal Solid Waste Landfills are lined by federal regulations as well as by state regulations. We also have landfills that take only land clearing and inert debris to unlined landfills. The fourth type of landfill is the industrial one that we are talking about today. Coal combustion waste being that it is an industrial waste falls into this category of disposal. Regulations which became effective in the late 1990s require that the design of an industrial landfill undergo modeling. Modeling of the waste characteristics, climatic factors and the hydrogeology is in order to assure the groundwater standards have not been exceeded at the compliance boundary. All coal ash landfills in North Carolina are designed and built to be lined landfills. We heard earlier from Mr. Bush about the coal ash from the power plants. There is a second type of waste that's coming out of the power plans called flue gas desulfurization and it is a result of the progress clean air initiatives have made. Flue gas desulfurization which we call FGD. It's actually synthetic gypsum and is often recyclable into drywall. If there is a market close enough to the power plants the FGD is used to make drywall. Unfortunately, that is not always the case and it is often disposed of at these industrial landfills, either by itself or with the coal ash. There are five active Coal Combustion Waste landfills at power plants in North Carolina. Two of these are the FGD landfills, three of them are coal ash and two proposed landfills that are at power plants. One is an FGD and one is a coal ash plant. There is also in North Carolina one landfill in Halifax County that is a standalone landfill that the Roanoke Valley Energy brings their waste to Halifax County for disposal. Of the five active and two proposed landfills four of them are partially located on retired ash ponds. These are primarily built according to North Carolina Statutes which came about in 2007 and calls for double liners and a leak detection system. In the western part of the state Duke Power has four facilities with landfills located at them or landfills will be there if the proposed landfills do come about. At the very top middle of the Piedmont is

Progress Energy's only facility that has landfills at it. Over in the eastern part of the state Halifax County is the standalone landfill that is used for regular energy.

Chairman Smith: Are you talking about dry ash?

Ellen Lorscheider: Yes we are talking about dry ash. At Marshall Steam Station there is one active FGD landfill and there is one proposed ash landfill. There is a closed landfill also on site. In Allen Steam Station in Gaston County we have an active landfill as of December of last year. That is the only landfill that is on that site. Cliffside Steam Station has only a proposed ash and FGD which will be a combined landfill. Ash and FGD can sometimes go into the same landfill. Belews Creek Steam Station in Stokes County has an active FGD and an active ash landfill. They also have a closed ash landfill on site. Roxboro Steam Station has a closed ash landfill and an active landfill. This landfill can take FGD also, although I believe it has never taken it because they are trying to use it for recycling.

Jim Simons: To refresh your memory I guess we got here because of the failure of a TVA ash pond dike in December of 2008. It caused a nationwide alarm including our own General Assembly and the Governor. The General Assembly transferred the jurisdiction of the fossil fuel power plant dams from the Utilities Commission to the Land Resources within DENR. Shortly thereafter, EPA hired a bunch of consultants to go out and looking at dams and that brought further attention to the matter. A particular note said that North Carolina had a number of dams of concern that were questionable because they had a lack of engineering plans and analysis. That's technically correct. We don't think there are major problems.

But the potential concern is justified. If the dams should break, Lake Julian and the ash ponds in Asheville and the French Broad River are in close proximity some things that would be damaged. Some of the potential of damage to human life is not as much but the environmental damage could be. The number of dams we have is changing almost daily. Any number I give you on how many dams we have exactly is subject to change at this point. A number of these dams are several miles around. If you get a dam that's eight miles around that is not the same as getting a dam that is 700 ft. across. We consulted our inventory and came up with what is the average length to our regular dam which is something like 750 ft. to be conservative. Using aerial photography to estimate the total length of the utility company dams that we inherited we came up with an equivalent dam unit. Based on the 750 ft. with over 200 more high hazard dams and overall we're getting a good bit more work. Even before, December 1 we had meetings with the utility companies, we got their aerial photography, got briefings and got to know each other and who we should be contacting. We have reviewed their EPA reports and did some joint orientation of our senior inspection of Buckhorn Plant which is essentially located near Raleigh. We set up an inspection schedule and included our Senior Dam Safety Engineers involved in this first round. First we knew there would be policy issues and we wanted our upper level engineers all familiar with the site so we could best decide on our policy issue. We wanted consistency across the board dealing with the state, seven regional offices and the 16 plants. Most important, we knew there was large scale concern; we wanted our best inspectors to look at these, at least, for the first time around, and either say we got a real problem here or the problem is potential, and try to get a better handle on these. We are quite aware of the public concern. We had looked at all the dams of 11 out of the 16 plant sites. We have looked at most of the dams, but we have

not gotten around to three of them two of which are in the mountains. We had hoped to have all of this done by the end of February but it wouldn't quit raining or snowing. I was involved in the Roxboro Dam inspection and it's at least ten degrees colder in Roxboro than it is in Raleigh. We took the aerial photography and then overlaid the LiDAR and that really gives us a whole lot more information on the dams. There are a number of things that have come up. One is refining what is a hazard central class. A lot of these ponds are old and they are starting to stack dry ash on it. At what point do one of these old ponds no longer become a pond and just become a landfill? What activities need to be permitted when it's a pile of ash or dyke under our jurisdiction? Finally, what roles would we play and what roles do we want the company to play concerning the continuing safety of these dams? We are still working on that, and we are like a blended family where everybody wants to get along. Things are going pretty well. In fact, I am happy to report to you our expectations going into this. We expect full cooperation from the Utility Commission and the power companies and we have gotten it. We expect them to be conscientious dam owners, be motivated to keep their dams maintained, and they have been. We expect them to have trained staff to maintain at least the current level of care that they have been giving it all along. We have been assured of that. They are already jumping on minor deficiencies that we have found before we can send a letter out and we are not accustomed to that. I want to recognize our State Dam Safety Engineer, Steve McEvoy who master minded this whole process on our part. It is just amazing how quickly we are grabbing hold of this. I also want to thank the utility companies for their cooperation. I am happy to report that we have not found any major problems. There have been some maintenance items, minor problems and things to keep looking at. But the potential there is that you can never let your guard down because dams get old and you have to keep looking at them. But we are happy to report no major problems have been found so far.

Chairman Smith: That was a very helpful presentation. I'm glad to know that all you are reporting on is in process.

Dr. Peterson: If all these dams are so well maintained why is such a high category or high number of them in that risk category, at least in the original numbers that you presented?

Jim Simons: The hazard potential is based on what would happen if they broke, not the condition.

Dr. Peterson: Thank you.

John Curry: No air emissions?

Keith Overcash: We don't have any regulations on the emissions from any of those ponds or landfills.

Chairman Smith: Any questions or comments? Thank you. Good information and useful reports and also appreciate your patience for being with us nearly all day long. The last information item is going to be an update on the Concord-Kannapolis litigation. Mr. Crawley will speak to us on the closed session point. Mr. Morse recused himself.

Frank Crawley: Under the open meeting law of public bodies such as this Commission may go into closed session to consult with their attorneys with respect to matters potentially in litigation or actually in litigation.

Chairman Smith: asked for a motion on the closed session. Mr. Cecich made a motion on the closed session and it was seconded by Dr. Larkin.

IV. Status Reports by EMC Committee Chairmen

A. Water Allocation Committee Mayor Darryl Moss, Chairman

We had a rather short meeting and had one action item which was the approval of the Cooperative agreement with the EMC, DWR and the Lumber River Council of Governments which we took action on that earlier today. We had updates on two information items, the Neuse Regional Water and Sewer Authority and IBT updates on the Greenville Utilities Commission, Collack Regional Water Systems and the Brunswick County Utilities. I will note on the Neuse Regional Water and Sewer Authority, if I recall correctly there were some comments expressed about the possibility of coordinating that with the Greenville Utilities IBT request because basically putting it in the Tar-Pamlico, back over to the Neuse and then the reverse. I may have those backwards but there was some discussion about that.

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

We had five items all of which were action items. Three of them we have acted upon today here as well. They were the action to delegate authority to local sewer line permitting to the Director of the Division of Water Quality. The second item was the Falls Lake nutrient strategy and the 30 day rule waiving that accompanied it so you know the outcome of that. The third item was the decision on not designating under Phase II stormwater rules for Havelock, Kinston, New Bern, Smithfield and Wilson. The items that we haven't met here today but will are a request from staff and now we have passed it on with our approval to the full EMC to take stormwater rules that are actually now session laws because the General Assembly disapproved our rules and turned them into our rules for the Phase II stormwater rules and the coastal stormwater rules. That will be showing up in the May meeting. The final item that we had was something that came out of the Triennial Review relative to draft rules of chlorophyll-a thresholds for nutrient enriched water bodies and their management. The issue here, in part was to try to nip problems in the bud and perhaps be proactive in some areas where we see progressive deterioration of water quality as is illustrated by the chlorophyll-a standard. There were other parts to this as well where this may come into play but this we will see as well but I am not sure which meeting. That was the sum of our items.

The Groundwater Committee did not meet.

C. Air Quality Committee John Curry, Acting Chairperson

We had the same report on Greenhouse Gas Tailoring that you heard today from Joelle Burleson and no action on that one. Then we had amendments to PSD involving fine particles PM2.5 and we voted to send that to public hearing and we also had a presentation related to that regarding the roll of ammonia in the formation of PM2.5 from Mike Abraczinskas. We had an interesting presentation on open burning activities and outreach from Patrick Butler and it does seem that open burning is an issue that takes an awful lot of staff time both investigating, making determinations and etc. There's a large public education effort in this area but it's still a big problem statewide. I think he said 25% of their staff time was devoted to investigating these kinds of activities so this is a big problem. Keith Overcash gave us a report on the Clean Smokestack Act and things are basically going well there. We heard a report on the Clean Air Interstate Rule reallocations and we talked about Air Quality Committee focus areas for the coming years. We got a report on woody biomass combustion estimates which is a part of the Air Quality Committee's undertaking to compliment the work of the Renewable Energy Committee. As has already been reported that it's difficult to really understand the numbers but if you just take them literally it appears that pollution from burning wood is as great or greater pollution as from using coal. It is very simplistic. I don't think the Division of Air Quality will agree with that statement exactly but that's the concern that was raised by the numbers that was shown to us. Wood is as clean as we might assume that it would be.

The Steering Committee did not meet. The NPDES Committee did not meet.

D. Renewable Energy Committee Dickson Phillips III, Chairman

The Renewable Energy Committee did meet. The only item on our agenda was the report that the EMC addressed today. We are not fully done with that topic or our work either, but there will be other things that we will be taking up in the near future.

IV. Concluding Remarks

Forrest Westall: I know that some of the members here in this Commission remembers Paige Benton. At the end of January Mr. Benton passed away. For those that have been around for many years, two generations Page Benton was a fixture in the Division of Environmental Management and the Division of Water Quality. He served as staff to this Commission many times. Chuck Wakild, Tommy Stevens and Preston Howard grew up under Paige. He was a mentor for many people and a mountain of a man with a tremendous intellect. He did so much to move this agency through some very difficult times and the upgrading of wastewater plants, he did as much as anybody to produce some of the quality that we see today in our waters below discharges. I just wanted to remember him today because he was a good friend and tremendous man.

Chairman Smith: Thank you.

Coleen Sullins: I just briefly wanted to say thank you to the Commission for forwarding the Falls Lake rules and to the staff who are not here at the moment. It has been a yeoman's task and I can't even begin to describe it. We were working on it yesterday morning leading up to the presentation and they really have done an outstanding job. I am hoping in the next little bit of time that they will have a brief period of time without all the contacts that they can complete the

fiscal note and we can get into the next round of conversations. Our intended schedule is to have the draft fiscal note by April 9th which is not very much time given the amount of work that needs to be done. We will send it to you when we send it over to the Office of State Budget and Management as well. I just personally wanted to say thank you in a public forum for all the hard work you did put into it.

Chairman Smith: I would like to echo that back. When we first met after the session law was passed with Ms. Sullins and others to talk about the schedule and we laid out a schedule, there wasn't resistance but there certainly was the setting of March 2010 to have a set of rules to go out to public hearing was not the first choice coming out of the staff. But we persevered on that and they performed on that and they got the job done. That is very commendable.

Hearing no further comments the meeting adjourned at 3:40 p.m.

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

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Lois C. Thomas, Recording Clerk

By Commission Members
By Directors
By Counsel
By Chairman

Adjournment AG03-11-10