

Falls Lake Public Hearing – Raleigh 7/01/10

Campbell Lodge – Durant Nature Park

3237 Spottswood Street, Raleigh NC

Question and Answer:

- (1) Paul Weblke, City of Durham. Clarify present value cost, does that mean 1.5 million would cover your cost if you had that money in reserve today for the 25 year period? That is today's value.
- (2) Lisa Utzil, Resident of Creedmoor. Data in packet, graph P & N, category of agriculture is there a breakdown of where those loads are coming from? Reduction needs are not based on the bar graphs. Why is P twice as high as N, curious? Result of model practice used for the watershed, pasture acre vs. production acre
- (3) Ted Voorhees, City of Durham. Was Net Present Value (NPV) applied to benefit side of the equation? We detailed in the Fiscal note which benefits that had NPV applied. What discount were you assuming? 7% discount. How was that decided? OSBM requirement. Recreational benefit side, how was it decided that recreational could only be achieved if implemented? Range was provided for recreational benefits. An economic model was used in the assessment.
- (4) John Cox, City of Durham. On recreation study, the presentation from NCSU at WRRRI, showed graphs where he was assuming without these rules Falls Lake recreational activities would reduce significantly. With current Neuse Rules in place, it reflects negatively, it seems to me. Question, is there is possibility of revisiting recreational benefits in the future? Yes, I would imagine recreational benefits would be measured for future strategies.
- (5) Bob Roriguz, citizen. We are on a groundwater well, is there any assessment or ideas on impacts of groundwater wells (contaminated wells) with this strategy? In the long run the implementation of the strategy should improve well water quality, water retention/hydrology will be benefit of the strategy as well.
- (6) Allen Wiggs, citizen of Raleigh. Any legacy sites that might be contributing point sources that may be impacting the watershed without the ability to clean them up? DWQ has no knowledge of issues. There are No EPA superfund's in the area? No
- (7) Kathy Jack, Raleigh. Is this a volunteer strategy or is this a mandatory? These will be mandatory, local governments will give permits for construction, the vice is on local government for approval of permits. People are limited on checking up, what happens if there issues? Local government will be in charge of compliance issues for development. Agriculture utilizes a collective compliance approach.
- (8) NCSU CES?  
Clarify; does the rule assign which agencies apply these rules to citizens? Implementation will be by local governments. Agricultural Rules, DSWC, Cooperative Extension are heavily involved in helping meet reductions, point sources will be tied to their permit. DOT will be charged with roadway issues, DWQ will be permitting projects in that instance.

Public Comments:

- (1) Martin Ginsburg, Margin Consulting, LLC. Comments will be submitted in writing. Utilizing existing technology to clean up the lake to reduce the overall cost of the project.

- (2) Jim Wrenn, Attorney for Granville Co., Person Co., SGWASA, Butner, & Creedmoor. Stage 1 will require costly action on all parties, clients have not opposed stage 1 or inclusion of stage 2. We understand stage 2 is thought to be necessary in order clean the upper portion of the lake. We think more research should be conducted before spending an additional \$900 million on implementation of stage 2. New technology will be developed to make a better assessment. We encourage all local government to come together to meet obligations and improve the watershed. Local government will have to supplement the cost to implement. Rules need to make clear that the allocations to Falls Lake do not change the preexisting Neuse River Estuarine nitrogen allocations. Taking away allocation above Falls lake will take away trading possibilities that could help to finance wastewater facility upgrades. Supports regionalization; as dischargers are connected, transfer the allocation to the new responsible party.
- (3) Theodre Voorhees, City of Durham, Deputy City Manager. Durham supports stage 1, but opposed to stage 2. Need a reexamination of the stage 2 processes and cost. Presented the same comments on the Jordan Lake Rules. Rely on grant and trust fund money cannot be called upon to continue to funds these efforts. We were forced to seek legislative relief from the General Assembly for Jordan Lake, which will no longer financial ruin us. To put cost of Falls Lake Rules in to 1+1 model, land+building+improvement = \$1.29+billion, the cost of implementation is much higher than that. Funding issues need to be addressed in this process. This will become the highest capital improvement cost ever incurred. Site specific standards have been requested numerous times. We offered an alternative, the consensus principles, please consider consensus principles.
- (4) Katie Kalb, Director of Public Works, City of Durham. Satellite imagery and statistics will be submitting with comments. Satellite imaginary is used to annually updated stormwater fees for Durham. Using GIS and remote sensing they identified impervious area. Wake County 8.1 % twice as much as Granville 4.2%, Durham 4%, Wake County is 5.2 miles, followed by 2.6 and 1.6 miles in Durham. Advantage of satellite imaginary, when we submit comments will include imaginary, you will see more sediment from lower portion of lake than upper portion. Sediment plumes much large. Using satellite imagery should be use for future assessment.
- (5) Sandra Wilbur, City of Durham Stormwater Services. Not going to argue selection or calibration, this is the first time state used point based model, this is not standard. Reservoirs should be calibrated as a whole. A large mistake was made in selecting a specific point to base model on. The first selected was used a target point (lower in the lake), if a midlake point had been used a less stringent reduction would be called for. Review of calculations indicated a mistake on reduction curves because use of nonliving N, living N was not used and could have a large impact on the reduction points in the model. The current curve is over estimating the reduction targets. This calls for redo of curves, must be reevaluated before Stage 2.
- (6) Sara Knies, City of Durham Stormwater Services. Status of upper lake, trend analysis of City of Raleigh eco consultants show that water is deteriorating in the lower half of the lake near water treatment plant intake. Durham found that upper lake has not deteriorated and maybe improving. Media reported that water quality maybe getting worse, but scientific evidence does not show this, the upper lake is stable.
- (7) Paul Welbke, City of Durham Stormwater Assistant Manager. Control nutrients at the source to control impacts. Durham has the most stringent regulations in the area. Neuse Rules 2001 set nutrient limits for the first time, NPDES compliance rules, Phase 2 rules and as of June 15, 2010 there are new development stormwater rules in place. The Fiscal analysis indicated new technology will be cheaper, but I am not familiar with anything that says new technology is cheaper. Actual cost will be well in excess of \$ 1.5 billion.

- (8) John Cox, City of Durham Water Quality Manager. Durham has been a leader in stormwater management. The City passes new development rules on June 15, 2010 that is consistent with the Falls Lake rules. Most of development existed long before lake was constructed. Durham has been portrayed as not wanting to pay cost for benefits downstream. Durham has agreed to the consensus principles with local government. Cost are not linear, Durham is not prepared to pay cost to increase to 40 & 77 reductions, not able to do at this point. Full implementation of LID is very expensive, Montgomery County estimated 100,000 per acre for LID. Durham has not requested a pause for Stage 2, we have simply requested a reevaluation during stage 1 and before stage 2 is to start. More information needed and Durham is working on atmospheric deposition as well as other types of monitoring.
- (9) Bill Bell, City of Durham Mayor. Durham support regional protection of Falls Lake, important to realize we are in all this together and we have to find a regional way to do this. The consensus principles paves the way for that. Durham appears to be large part of this bill, we would hope you would work with regional government. to reach reasonable compromise on this issues.
- (10) Barbara Gambling – teacher and private citizen. Concern about potable water, clean drinking water. Amount of potable water in world is less than 1%. We in triangle are lucky to have Falls lake, however that lake is impaired. We should be very aware and concerned about availability of drinking water in triangle area. There is a time without action we may not have potable water in the triangle area. We can debate about who has done what to this lake, but we are all responsible for cleaning this lake. The triangle continues to grow people are becoming more aware of clean drinking water and if we cannot provide for them they will not move here. Against staged approached, but action must be completed and quickly, we need to keep this lake clean and healthy and we are responsible for future citizens.
- (11) Robert Gorden, Capital Group Sierra Club. We strongly encourage implementation of the Falls Lake Rules. Mountain to Sea trail runs 25 miles along lake. The health of citizens, wildlife and economy depends on the clean lake. The portion in Durham and Wake County must be cleaned up, upstream needs cleaning to prevent movement downstream. The responsibilities are on those causing the impacts to the lake. Clean up to upper part of the lake will be expensive but the delay will only impact lake further and cost more in the future. We encourage 7 year stage 1 instead of 10 year clean up. Strongly encourage implementation of these rules.
- (12) Kenny Waldroup, City of Raleigh Assistant Public Utilities Director. This has been a very long process with controversy and expense. This is drinking source for 450,000 people. We would to reiterate the consensus principles. Strongly encourage stage 1 in context of source water protection, we should re-exam stage 2. As a city was prepared to act with consensus principles outline to implement more rigorous monitoring program. May not be able to reach standards in upper portion of the lake. Stage 2 re-examination should start by Jan 2018. The City will assist with data collection. The city will submit detailed written comments.
- (13) Hunter Freeman, Withers-Ravenel, Stormwater engineer. The post construction controls methods in the new development rules are insufficient. Seen firsthand the problems with required regulation implementation. Required nutrient reductions do nothing more than require multiple BMP before discharge. Runoff volume is the real problem, these are not covered in the current proposed rules. LID practices could reduce total volume runoff. The opportunity for real improvement has not been included.
- (14) Alissa Bierma, on behalf of Matthew Stark, Neuse Riverkeeper Foundation. Upper communities are not alone in this, we are in this together. We are all going to end up paying. The whole lake needs to be cleaned up.
- (15) Lisa Etzel, resident of Creedmoor, horse owner. 5 horses is not a lot of horse, Page 37 of the proposal allows for up to 19 cattle before complying with the rules are required. 20 or more

cattle and 5 horses are not equivalent. First, needs to determine what is a commercial horse operation is and what is not a commercial operation. Needs to base on number of horses per acre not number per operation. Fairfax County VA recommends 3 horses per acre, NC CES recommend 1 acre per horse and possible to maintain on ½ acre. San Louisie CA, non commercial in less than 30 horses, 3 horses per acre for 3 acres. Waste utilization plan does not distinguish between non commercial and commercial. We represent a lot of revenue in that state.

- (16) Denise Hill, small horse farm in Wake County, Seaborne Farm, Inc. I am active in Wake SWCD and have been for 15 years. Would like to speak with NC Horse Council before giving specific comments to the rules. There will be a huge number of people that will be affected by this and the number of acres that is commercial and residential was not represented in the presentation.
- (17) Susan Bowers. Tangible cost of polluted lake. I have 3 nieces and nephews, planned camping trip in Falls Lake, but the bacterial levels so high that it was too dangerous to swim. Durham does not sample in the same way as Wake County. Chemical that are dangerous have changed by order of magnitude in recent years. Encourage you to swiftly and fully implement lake rules.
- (18) Sal Corbo, Raleigh concerned scientist, Geologist. Has done forensic geologic investigation for a long time and have seen impacts of environmental policy. When I first read the rules, I did not think the rules were strong enough. I think growth and development has over shot sustainability of the lake already. Even if we decrease nutrients coming into lake now, what will that mean in 30 years. What is growth going to be by the time of full implementation. Encouragement, you have to stick to your guns here, there will be lot of developers and landowners that will only look at cost and not the people that are really affected here. I have only seen cost talked about here, and not the hydrologic cycle of the lake and that ultimately determines the health of the lake.
- (19) Kari Wolk, Wake Audobon Society. We are for full implementation of the rules for Falls Lake. Falls Lake is an important bird area for Audobon. Birds rely on healthy water quality and habitat to survive. Also important resource for drinking water and recreational uses. The time for discussion of clean up is over, time for action. Clean up the whole lake and do it as quickly as possible.
- (20) Bob Rodriguez, North Raleigh citizen. Challenge is how to take old systems and change them, the true cost of clean environment. This is not just about humans, but about plants and animals and other beings we share this landscape with. Challenge is that we do need to clean up the lake, it is something for our children and grandchildren, how sick do we want it to get before we do something. We keep adding to the problem, what level of sickness do we want to live with? Continue implementation and action. Time table is good, do not delay in taking action.
- (21) Charles Meeker, City of Raleigh Mayor. The city does support the consensus principles. Stage 2 will be more effective if re-evaluate. Recommends starting the re-evaluation process by Jan 2018. I don't think we in the city were aware of how bad Falls Lake had gotten. The City of Raleigh only covers 1% of the Falls Lake watershed. The City of Raleigh will comply with the rules even though majority of city is not located in the watershed, but we are being proactive to implement those reductions across the city.
- (22) Michael Youth, concerned citizen. I have a 2 year old daughter, drinks falls lake water and will continue to do. She did not contribute to the impacts of Falls Lake, we did the adults, and we should pay for the cleanup. The clean water act was passed in 1972, here we are 40 years later still trying to clean and deal with clean water. Having a firm plan to clean lower portion of the watershed is like have a plan to only de-lice half of a Childs head. Recommend full implementation. Please recommend the rules as proposed to the full EMC for adoption.

- (23) Russ Stephenson, City of Raleigh Council, at large member. Important process, in wake of 100 year drought, few citizens will take water for granted again. Here to speak on behalf of Thomas Crowder, look at TJCOG to complete the consensus principles by all local government. in the falls watershed. Urge full incorporation of the consensus principles agreed upon into the rules.
- (24) Jessica Robinson, Raleigh residents, Neuse Riverkeeper Foundation Member. Avid hiker and paddler. Done research in the area. Beach closures effecting recreation and effecting boaters, Falls Lake can be a destination for recreate. Beach closures and other water quality problems affect recreation. Clean water provides economic value to the area. Support cleaning the whole lake, do not pause for stage 2, make it happen in 25 years. We all much work to keep stormwater onsite, think about how you are going to keep stormwater onsite.
- (25) Karen Rindge, Wakeup Wake County Executive Director. Tax payers who want to ensure our communities are healthy and ready for growth. Raleigh metro 2 highest growth in nation. We cannot afford to not act on cleaning falls lake now. Continued growth will affect this resource. Keeping stormwater onsite is necessary. The rule failed to emphasize the need for stormwater LID techniques to be utilized, this is a missed opportunity. Stage 1 should be done in a shorter time frame, we should act delay without delay; should do stage 1 in 3-5 years. The rules already allow for adaptive management. Must clean up the entire lake; the federal law requires this. Future development must be planned. Existing development must be addressed as well. Delaying will simply burden upstream governments. Cost to be shared among total population. The \$1.5billion would cost population \$.72 a day. Cost will be borne by tax payers.
- (26) Don Greeley, City of Durham Water Management Director. 1902 construction of first wwtp in Durham NC, 1994 constructed Durham WWTP \$19million to enhance N reductions. We did study in 2008 to determine needs in order to reach stage 1 and stage 2 rule, we will ensure stage 1 rules are met in the North Durham Plant and will start upgrades to meet the 2016 deadline. To reach stage 2 rules, Durham will have to build a water treatment plant inline (directly behind) with the wastewater treatment plan in order to meet the water quality reduction requirements. We support consensus principle rules and should be reevaluated in 2018 to use better data. These costs will be passed to home owners in the Durham sewer water services. Determine real scientific data.
- (27) Andrew Campbell, NCSU student. Chl a, fish kills, chemical spills, drinking water. Well informed citizen in the triangle area. LID as primary solution to stormwater challenges, Maryland, Washington, Oregon. Why has triangle fallen behind? Why do we allow out dated development practices to be continues in the watershed? As a student I am worried about my drinking water. In 27 years I would think I would not have to worry about drinking water. My generation will inherit these problems. Clean up the whole lake now and as quickly as possible.
- (28) Doris Whitfield, Important cost effective way to reduce runoff is to leave land undeveloped. The crunch is land use and growth and how to control that. Come up with PDR – purchase development rights, money is available, purchase conservation easements and expand parks and greenways. This protects the land and supports clean water.
- (29) Alissa Bierma, Neuse Riverkeeper Foundation, Upper Neuse Riverkeeper. Pass these rules with a short timeline and stringent requirements that is needed to protect water quality. Majority of staff members (Durham, Orange, Wake county) are paid to show up and speak, you also have 100 and thousands that have the interest to have clean safe water, we are in this together, \$.72 per person per day to clean this up, I am happy to pay for me, it is the future for our children. Just don't know how can take something so beautiful away from us. Pass these rules to protect water quality.
- (30) Kay Bond, Attorney with Southern Environmental Law Center. Alternative proposed stage 1 and stage 2, automatically hold on to stage 2 until stage 1. But we are to restore and protect our

waters, the whole lake, as required by the clean water act and NC clean lakes bill. Clean water is important to social development and economy. A use attainability study has been suggested for the upper portion of the lake, this goes against the law. Not cleaning the upstream portion will only increase impacts on downstream portion. The rules as written already allow the option of submitting additional information to the EMC and encourages that the best use of resources/staff time to implementing rules and improving water quality here and in other areas of the state. Resources are better spent improving water quality.

- (31) Susan Harris, VP of Government Affairs, Home Builders Association of Raleigh-Wake County. We have been involved in the process from the beginning. Mainly, Upper vs. Lower lake issues were presented here, not a lot of discussion has been presented on the controllable rules. If you are familiar with the rules, the new development rules are unique because they are required to meet targets straight out of gate, where others have 25 years to make it to the 40 & 77% target presented tonight. Request to move with stage 1 and withhold on stage 2, new d meets it out of the gate, so remember we are doing this from the start where local governments are limited with the reductions they need to meet. Local governments may look to new development to help meet their requirements. New development is not the only place to find these reductions; consider these when reassessing stage 2.
- (32) Marilyn Kille, Rep. of Southern Orange County Farmers and Landowners Coalition and as well as farms in ETJ. Farms within 3 miles of piedmont municipalities are in crisis, under state laws these farms are required to follow the regulations in these rules. Local governments are moving to dump this on outside land areas (ETJ). Similarly, fertilizer laws shifts from urban development on to farmers in the piedmont farms. Area farmers will be required to have larger buffers while urban buffers are reduced. Farmers will no longer be able to use their farms for production. NC laws have abandoned farmers, this is not primarily a legislative issues, farms in ETJ (3miles outside of jurisdiction lines) have no vote on matters, yet they are task to clean/participate and forced to pay same as jurisdictional residents. We encourage you to seek remedy to protect ETJ farms.
- (33) Sharon Hazouri, will submit written comments
- (34) Tina Motley Person, on behalf Hope Taylor for Clean Water NC. Clean Water of NC supports measures at least as strong as Stage 1 and Stage 2 and sees the current rules as a compromise to address the issue of cost for local municipalities. All of Falls Lake must be cleaned up and in less than 25 years. Must implement measures without delay. More proactive onsite development management is needed, NC has resisted these and used highly engineered BMP, could have used smaller more cost effective and better looking BMP in key neighborhoods to clean up lake. The lake must be cleaned up for aquatic life, recreation, and drinking water supply. Pay now or pay more later for more expensive remediation.
- (35) Bob Mulder, Watershed Protection Council. Suggest local advisory committee don't have any environmental interest and they should. Attainment dates seem very far off and should not be 25 years off. Past rules and watershed protection rules (water supply I-V) have been severely watered down already and if they had been stricter and more protective we may not be here tonight. The tax payer has to flip the bill for repairs; complains by development that it is costing them money; but I have a problem with them reaching into my pocket for something that should have already been done.
- (36) Wanda Register, retired Health Teacher. Listing facts from Wakeup Wake County and Neuse River Foundation document: 1) clean up entire lake, the clean water act require entire lake be cleaned up; 2) start now and finish within 25 years, every delay increases future cost, should be fully clean up by 2035 and future retrofits; 3) no delays along the way – no remodeling of the lake because the extent of contamination will likely be greater than currently predicted, keep

stormwater onsite, best way to prevent runoff is to mimic predevelopment site. Remember drinking water outside of this country can be bad for our health, we are proud of our water in America.

(37) John Little, citizen of Raleigh and drinker of Falls Lake water, grandfather and birder. I have listen to people speak from a variety of prospective tonight, I am for the people who support the fastest and most efficient cleanup of Falls Lake to protect it for my grandsons future.