



The North Carolina
FORUM
ON NUTRIENT
OVER-ENRICHMENT

Panelist Summary Statements

Durham, North Carolina May 29-30, 2012

TRANSCRIBED FROM AN AUDIO RECORDING

The North Carolina Forum on Nutrient Over-enrichment was conducted on May 29 and May 30, 2012, at the Sheraton Imperial Hotel & Convention Center, Durham, North Carolina. The following is a transcript with minor editing of the final session conducted on May 30th during which the four panelists made their concluding remarks. The panelists were: Jacqueline Jarrell, Grady McCallie, Stephen Smith, and Darryl Moss. Richard Whisnant is the moderator.

MODERATOR: What we have now is a chance for our panelists to sum up their thinking on this set of great presentations. First, let me thank our speakers at this time. [APPLAUSE]

And what I'd like to do is ask our panelists to come up one at a time out of the relative obscurity of sitting down front and come up to the podium and just present their closing thoughts on what they've heard. And I'm going to ask Jackie Jarrell to lead off because I understand she's got to get back on the road to Charlotte for some sort of graduation or something. So, anyway, Jackie, your thoughts.

MS. JARRELL: Well, it's nice to see everybody. We've had our back to you all this time and weren't sure what you were doing behind us, but it's nice to see you. First, before I give my remarks, I do first want to really thank the EMC and especially Chairman Smith and his colleagues for all the work that was done leading up to this forum and what's been done throughout the forum. I think it's just been an excellent program. Thank you so much to DENR, Dianne and Jay and Alan and Chuck. Thank you so much. It's been excellent.

I think there's been a lot of good information that we've gained in this and a lot that helps to see that I think we're just getting started. I think there's a lot of good things everyone's been talking about, the many, many good things that we've been doing in North Carolina, and we do and have done quite a bit in North Carolina already.

And I think what we heard over these couple days that I think confirms what we're doing is good is that when we look at these different areas of the state and we look at it site specifically, that that is the way that we need to go. That is what we need to do. We probably need to enhance it some, and I think that we've heard about some different things that we might be able to do by looking at different response variables, for example. We've been using chlorophyll-a. That seems to work pretty well, but are there other things we need to be looking at. How do we look at the different water bodies, whether they're lakes -- streams are very different, as we've heard in these discussions?

I think one of the things that came out for me that I thought was very important was the fact that it doesn't necessarily have to be numeric nutrient criteria. We're going to be able to probably accomplish things that we need to do here in North Carolina without doing that through some of this other -- looking at these different watersheds specifically. And so I think that that is a very important point that I think came out of all of the presentations in what we heard.

I think it's also very important to remember -- and I guess for me, one of the other things was that there are three things that are very important in whatever programs that we come up with.

One being flexibility, that we need to be flexible. And for us to be flexible, we have to look at each area a little differently. We need to be balanced because there is the cost benefit factor that needs to be considered and has to be considered. We have to understand what the benefit is in order to get anyone to pay for these improvements. And so we have to look at what is balanced.

And, obviously, more than anything, too, we really have to look at the sound science. We have to be sure that that sound science is integrated into any policies that we have in North Carolina. So those three things I think are very, very important, and we need to continue to keep those as part of what we do when we go forward.

I also think that it is really important that we truly do identify what our goal is for each of these water bodies that we're looking at. What is it that we want and then go from there and back up to what we need to do to accomplish that goal? I think that right now we might be looking at it and maybe not always knowing exactly what the goal is.

And then I also think that there are times that we may not have engaged all the stakeholders that really need to be involved in each situation that we're looking at. And that's not to say that we haven't tried to do that. I think we do try to do that, but maybe we just hadn't realized or thought about all the stakeholders that truly need to be involved. It really came to mind for me when Mike Richardson was speaking and he was talking about what the water treatment people have to deal with and what they accept into the treatment plants. But there are other stakeholders, too, that also we have to consider as part of the solution of what we do here in North Carolina to continue to improve the water quality here. So I think that that's something that we have to think about and be sure that we're including as part of our approach to managing nutrients in North Carolina.

I also think that one of the other things that is very important as we go forward is to not only look at the direct impacts -- we've talked a lot about direct impacts for a long time -- but are there indirect impacts that we need to consider also. What types of policies do we have in place right now that maybe in conflict and how do we address that. When you start to think about all this, it sounds very overwhelming, or at least it does to me. But I think that's why I'm saying I think this is the beginning and not just one conversation. At least I hope that's where we're going, that we're going to start with today -- or yesterday and today and continue to have the dialogue and not too far away from today that we continue to have it on a frequent basis.

Whether we do that through the different associations that we have throughout North Carolina -- I hope we continue to do that, but I also hope that we can work with DENR as a partner and help provide some of the resources to help balance the resources they may not have available. There are so many resources we have here. We have so many associations. We have river basin associations. We have water quality associations. We have pre-treatment consortium, water operators. There's so many different associations and stakeholders that we can engage in our process.

The data is being collected and we can help to manage these things with North Carolina -- with DENR. So, again, I hope that this is the first step and not the last in working towards an approach that is flexible, that's balanced and is based on sound science. And I think that's what makes it sustainable and that's where we want to be. So I'm hoping that we'll get a chance also to hear from DENR and what they would like to see the pass forward be and, hopefully, we're all on the same page.

So thank you very much, and it's been a pleasure to be on the panel with these three distinguished gentleman. And have a great afternoon. [APPLAUSE]

MODERATOR: Thank you, Jackie. Mayor Moss.

MAYOR MOSS: Thank you, sir. Well, good afternoon. I'm like Jackie. Man, you are a great-looking crowd. I hadn't gotten to see many people. This is pretty incredible. I, too, would like to thank DENR, Chuck, Jay, Dianne and Alan; for the great work that they've done putting this together.

And I'd like to also, before she has to leave, recognize my fellow panelists, Jackie, Grady and Steve, for tremendous work over the last couple days.

Richard, I don't think anybody's thanked you yet, so I'll be the first to do that. Thank you for your great moderation.

A couple weeks ago my wife and I were heading to Lowe's over on Glenwood, and for those that know that area, there's a new Lynnwood Grill that's been built in that general area. So as we're pulling into the parking spot, I say, "Wow, check that out. That is a storm water retention pond." So, as you might suspect, my wife is looking at me like, "Here we go again." So I kind of go through what a retention pond is, what it's designed to do, and I got even luckier. As we're sitting in there eating, a huge thunderstorm comes up. It's raining. We go outside. The storm water retention pond is doing its job, and she said, "I guess you're happy now." And I said, "Absolutely."

But it gets better. Last night, after spending the day with most of you, I get home; Michelle makes the mistake of asking me how my day was. So I'm trying to tell her about what I've learned, what I've heard, and she literally points the remote at me. I said, "What are you doing?" She said, "I'm cutting you off." So I thought you all might get a kick out of hearing that.

But as we were preparing as a panel for this conference, I actually sent Richard an e-mail with kind of some of the themes of things I was thinking we might hear over these days. And this was my list, and this is what I kind of gleaned from the volume of information that Jay sent out to us to kind of get us prepared. Healthy streams, rivers, estuaries and lakes; the science of water or, actually, the science of healthy water; technology; regulation; legislation; economics and cost; the framework for strategy, one size does not fit all. And this one actually was mine. I don't know if I put it on my note, Richard, but this one was mine that I wrote at some point, the notion that what I affect -- what I do affects you and vice versa. So let me cut to the chase with what I really want to get up here and talk about.

My goal coming into this conference really was about education, and I can tell you for sure that I have learned a great deal. The aging water thing. I think Mike has left, but I never really thought about water being different ages. I'd never thought about that. But the reality is that what all of you have helped me understand and accomplish over the last couple days is actually formulating questions that I think that we really need to be aggressive in pushing forward as we leave here. And these are some of the ones, and not all of them, but some of them that I've captured over the last day or so.

My first one -- and this comes from Bob Miltner. I'm not sure if he's still here or not, but I kind of paraphrased something he said that stuck with me yesterday, and that's not how to let the complexity of this issue result in inaction. So, again, putting it a slightly different way, how we continue to move this conversation forward.

My second question came from Rich Batiuk. He spoke about fairness and equality, so I kind of reworked that into a question that I will continue to ask, how we ensure fairness and equity in this program. Whatever it winds up being, how we do those two things.

And then, lastly, the question that I really focused on is how we promote a robust stakeholder process. As a mayor, I think that's my number one job, not just in this particular forum but in my daily life as a mayor and as a leader of my community, how we engage as many people in the process as we possibly can and make sure that their voices are heard.

My last thing that I'm going to leave you with is what I consider to be the 800-pound gorilla that's in the room that we haven't talked about at all this week. As an elected official, I can talk about other elected officials, so I will. I think the -- one of the tasks that we have to figure out -- and I'm not sure what the answer is just yet, but I think the answer is how do we educate our elected officials, whether they're on the local level, whether they're on the state level.

The one thing that I know for sure --and I'm not an engineer; I'm not a scientist; I'm not a lawyer. But the one thing I know for sure, having sat here 32 hours -- is that what you said -- for the last 32 hours is that this is an extremely complex debate -- not debate, dialogue. But if we do not help our elected officials understand what we need to be done, we are lost. That is my humble opinion. And I say that because those are the folks that are going to pass the rules that make it happen, and I really and truly believe that they have to know what they're doing. I really believe that.

There may or may not be agreement in this room about the right path to move forward, but, again, the one thing I know for sure, once we go out those doors, I think there are a lot of folks that don't agree with a lot of things that have been said here today.

As I close, I do want to recognize my EMC colleagues. I think we still have a few here in the room. If you will, raise your hand. Absolutely, we have a few folks here. Thank you.

And I do want to recognize the tremendous leadership that Chairman Steve Smith is providing us on the EMC. Steve, thank you very much for what you do.

So, in conclusion, this path forward from my perspective is, again, I'm not sure what the real answer is going to be. But I do expect that the solution is going to have to be bubbled up from the bottom, trickled down from the top, and somewhere in between we're going to find the right answer for North Carolina. And that's what I'm committed to doing. So, again, thank you for the opportunity to participate in this tremendous event. And if I don't get to speak to you, everybody have safe travels home. Thank you.
[APPLAUSE]

MODERATOR: Thank you, Mayor Moss. Grady, your shot.

MR. McCALLIE: Good afternoon. I should start by saying how much I appreciate being able to participate in this and appreciate the work that the EMC and the Division of Water Quality staff have put into hosting this event. It's been fascinating and I've learned a great deal.

When I went home tired at the end of yesterday, I looked at my Google news feed, and there was an article that actually doesn't have to do with nutrients. But I looked at it and it talked about climate change. In particular, it was a study by Yale University of attitudes toward climate change, and they had gone and polled a bunch of people who don't think that climate change is happening to find out why. And they're working with a couple of hypotheses. One was they wanted to know do these people not understand science, do they know less about science, or do they know more and is there another explanation. And what they found, according to the newspaper articles, that folks who don't believe climate change is happening know just about as much science as folks in the general population who do believe that it's happening. And what accounts for their opinion is not ignorance but is that they have a very -- and what the study found is that the more you know scientifically, the better you are at doing this, at taking information that you hear and fitting it into the world view that you start out with, the preconceptions. And that's actually been a challenge for me, I say, because there's been a lot of challenging information over the last couple days.

And so part of what I'm going to be struggling with coming out of this session -- I suspect it's true -- should be true for most of us -- is how to fit the pieces that don't fit easily and what to do with those pieces, how to fit them into our world view, which may include or require revising our world view, not just rejecting those pieces and taking the ones that do fit. So I think that's a fundamental challenge of the forum.

But along with that, because part of what this study found is that what drives whether people accept information or just cull it and take only the pieces that fit the preconceptions is who they're talking to, what they're reading, what their social networks are informing them of. And if they're talking to a bunch of people who believe the same thing, they don't learn. And part of what that means for us is that this forum is a great start but that we have to continue to interact across a bunch of disciplinary boundaries and across a bunch of interest boundaries or there isn't probably a path forward.

I think this agenda covers three different conversations, and sometimes they overlap, sometimes they were separate. One of the conversations is what to do about numeric nutrient criteria, where EPA and North Carolina have been stalemated for about 10 years. I actually heard a lot of potential for movement at this conference, in part because EPA was signaling a lot of flexibility. We don't want to end up where Florida has ended up, but, on the other hand, there are clearly paths in Ohio and Maine that we don't have to stay stalemated. I think there are also a couple of implications that came out in that discussion that I think are worth follow-up. One is the question of is the 40-micrograms-per-liter chlorophyll-a standard, or if you translated that into some range or some equivalent numeric nitrogen/phosphorus criteria, is that sufficiently protective. It looks pretty weak compared to a lot of other states.

Another question is what we do about streams, because we don't really have a standard for streams. We've really relied -- I mean our standard applies in streams, but you're not going to find the violations there. And what should we do about streams? Will they be adequately protected if we're protecting downstream waters, but we've got streams that don't stop in North Carolina? So what we do about those.

A second conversation is what we do about proactive protections, and this was something that Commissioner Peterson charged us with at the beginning. One clear answer from a number of the presentations is monitoring so that we can catch systems that are on their way to failing, but we didn't get very far beyond that in terms of what kinds of proactive protections need to be in place statewide or on a regional level or watershed level.

And then the third conversation is what do we do about those areas where there is no real question that they're impaired by any of our current definitions of impairment, but particularly artificial lakes that are going to be very hard to clean up. It's going to be a long slog. What do we do about those?

And so for those last two, for proactive measures and what we do about the really hard cleanups, I think it's worth taking a step back. Our conversation has been guided closely by the Clean Water Act and by allied state laws and regulations, which makes sense. But one of the challenges with that is that it's possible to think that if you meet the requirements of the Clean Water Act or if you can find a way adjust the requirements of the Clean Water Act so that you meet them, then you've solved the problem. And I think it's worth stepping back to considering what we're really after, which is sustainability. Whether we call it that, it's the ability to keep going, to keep our systems going indefinitely. And the truth is that we have distorted the global nitrogen/phosphorus cycles, the state level nitrogen and phosphorus cycles in a way comparable or parallel to the way we're distorting the carbon cycle. Now, some distortion is probably okay, but you can't keep doing that indefinitely. That's not sustainable. Someone ultimately pays. And whether that is someone next summer who wants to swim in the lake and they can't or whether that's someone 50 years from now because that's when the nitrogen is making it out of the groundwater, someone ends up paying.

One of the ways -- if you're not looking at the specific thresholds that you can walk up to but not cross under the Clean Water Act, which is, as we've heard, exceedingly complicated and lot of scientific uncertainty about it, one of the values of thinking in sustainability terms is you can take a different approach.

You can start thinking about design. That doesn't necessarily eliminate the complexity, but it shifts it, so you're thinking about how do we design our systems, how do we design our land uses. And you can often integrate, and we've heard about water -- integrating water management across water quantity and water quality. Just as a specific example, an idea that we've been very interested in, is what happens if you try to match post development hydrology on a site as closely as possible -- we're not going to get 100 percent -- but to pre-development hydrology. And that offers potential ways to not only help with nutrients coming off the site but reduce sediment loading blowing out streams downstream. It may help, depending on how we do it, with water resources management if we're capturing rainwater. That's just one approach.

But I'd like to see a lot more policies and a lot more proactive effort go into that kind of design solution because it's so much cheaper than going back and retrofitting, and we've seen what some of the costs of retrofitting can be. It's not something that the Clean Water Act itself pushes, but it's something that I think we as a community ought to be pushing, because it saves a lot of trouble on the Clean Water Act regulatory side.

What do we do about places where we've already crossed the line and we're talking about needing to fix things? One thought there is let redevelopment work for us, particularly for urban environments. Overtime and it takes time, we're going to have redevelopment, and if we incorporate these design solutions into redevelopment, things will get better partly on their own. Now, not all the way. It won't solve all our problems.

The other piece -- and this is something the EMC has in fact already done and I think is really wise -- is the slow and steady approach, where we do the things that are cheap and cost effective first -- and there's actually quite a lot we can do -- and we wait and see if the costs come down or the path gets easier. We are so far -- for some of these water bodies that are in serious trouble, we are so far from needing to fine tune exactly where the threshold is. We've got a long way to go before we get there, and we've got time to figure out along the way if we don't stop. And I think with that I'll end, and thanks once again for being able to participate. [APPLAUSE]

MODERATOR: Thank you, Grady. Chairman Smith.

CHAIRMAN SMITH: Well, it's late and I'll be brief. But I first of all want to say that whenever I appear before or with groups on -- in my role as the chair of the Environmental Management Commission, I remind myself invariably, and I often say out loud, that I'm an amateur here and you're all professionals. And I say that out of respect for what you do and appreciation and out of an awareness of my limitations.

So with that, I want to take you back to November of 2010. It's the meeting of the Water Quality Committee of the Environmental Management Commission. DWQ staff has been working for three or four years on a rule package that addresses chlorophyll-a as a threshold standard. That rule package has come to the Water Quality Committee several times and been rewritten several times, and it is back before us for our consideration as to whether or not it should be moved onto the EMC and put out for public hearing. And at that meeting it became apparent to us that it should not, and so we withdrew it. The motion was made that we not vote on whether or not to pass it on to the EMC and that we step back.

And my very brief notes from that date listed six points that we were interested in. You may go to the Water Quality Committee minutes and read a fuller transcript. This is my very shorthand notes, but the six points are: review alternatives, explore underlying science, work on building understanding, and I'll add to that developing a broader sense of involvement in each state of the principal decisions to be made. Number four, review costs, cost effectiveness and cost savings, including the cost of doing nothing. Number five, consider basing a threshold on something other than chlorophyll-a, and I address what role a threshold might play. And then number six, consider other indicators of trending and change.

DWQ staff took us very seriously, and out of that the last 18 months or so have worked very hard, and this forum is a result. It is an attempt to deal with those six questions or those six requests or those six areas, and I take my hat off to Jay and Dianne and Chuck and Alan. They really have put together a good forum.

Now, two other thoughts from that day and then I'll talk about now. Dr. Kealy put it well, I thought. One of the things we were asking for but we don't know how to ask at that point was are we pursuing the right environmental objective, back then, and what is the preferable approach to pursue that environmental objective.

The second thing is -- and this was my thought, and I won't speak for the Water Quality Committee but it was my thought that day -- to try to make some progress in breaking what I've observed is widespread assumption, a fear even, that a disproportionate share of the burden going forward is going to fall on the point sources, particularly the local governments that operate wastewater treatment plants. I hear that over and over and over again from you all, your assumption is that the easy road is going to be taken and we're going to put all of the additional regulations on the wastewater treatment plants.

Now, one other thing about that day. I see Forest Westall here. Forest was instrumental in putting those six questions together. He was a member of the EMC then, and he was an invaluable member of the EMC then.

Now, as to the last two days, I've made these notes about what I want to do. Some of this is me personally and some of it as EMC chair. First of all, we have a lot of information to digest, absorb, think about, annotate, make notes on, lift questions out of, additional points to be remembered, and additional questions to be asked. That's the first thing that I'm going to do and I think the other EMC members will, too. And, by the way, there were 12 or 13 EMC members signed up for this forum.

Then looking in more detail at what is going on in other areas, particularly Florida, Vermont, Ohio and the Chesapeake Bay, and looking -- and look back on what has worked in North Carolina, what have we done well that we can translate into nutrient management.

Second, identify our specific targets, what environmental indicators should be our focus, how do we recognize impairment. I think we covered a lot of that today and yesterday. Very helpful.

Third, separate considerations of streams, lakes and estuaries, how do we deal with that? Do we stay with our site specific approach or do we move into something else.

Fourth, being proactive, not just reacting to problems. One of the questions that we didn't get to ask is, what's worked in the past is we wait for a disaster and then we regulate. And we wait for a disaster and then we regulate. That model is not the better model. Then we are approaching time to make decisions. I think Mike Richardson said it best. I wrote it down. I think it was Mike that said it: "We have to make some decisions at some point." And we are approaching that point, at least from my perspective.

And then fifth, as to what the EMC might do or can do, we are, among other things, a rule-making body, a regulatory body. I can see us moving into rulemaking relating to nutrient management probably, possibly, with an accompanying report and set of recommendations to the governor and to the General Assembly. But those things are parallel to each other. One is not dependent on the other.

But regulation is not the sole solution to this, as you all well know. Several speakers have said -- Bill Holman most recently -- it's time for you all, who recognize that you are in areas that have nutrient problems, to start doing something about it and not wait on doing something additional about it over and above what you're already doing and not wait on a set of regulations to come from Raleigh that you may or may not very happy with. I hope you will.

Stakeholder involvement is crucial at multiple levels. We have to continue to bring in as many different people and listen in as many different ways to each other as we can. I think today is a good step in that right -- in that direction, a continuation of what DWQ has undertaken to do at various times over the years.

And then I'll end by reading this card which one of you handed up, and it's not a question but it's just too good not to. "Thanks to the speakers for traveling to us." I'll add thanks to Richard for being such a good moderator. Thanks to the regulators and EMC members for attending. And, EMC members, do you think you can bring all stakeholders together to work on nutrients, and if so, how? That's a great question, and I guess the proof of that pudding will be in the eating. So I hope so, but it's going to take your help.

[APPLAUSE]

MODERATOR: Thank you, Chairman Smith. Let's give our panel a round of applause for their hardwork.

[APPLAUSE]

Several speakers have said this, but I just reiterate. Any of you who have been involved in preparing for an event even a third of this size and complexity know how hard it is to make it work, get everybody in the right place at the right time and to keep moving. And the reason this one has worked so well, I believe, is because of the incredible attention to detail and hard work of the organizers of this forum. So I think we ought to thank Jay Sauber, Dianne Reid, Alan Clark and Chuck Wakild for turning the staff loose on this event. Haven't they done a tremendous job? [APPLAUSE]

And I want to thank Cindy Allen, as well, from NC State, who I think has helped to organize logistics, Eric Hague from American AV events and also our AV guy in the back who has really kept us running smoothly. Thanks so much. [APPLAUSE]

The last thing I would say is I had several speakers contact me after looking at the agenda and say -- they said, "You know, Richard, looking at all of that content you have coming with few breaks, I don't think anyone's going to be around at the end. Your audience will limp away early on. They just won't stay for all that. It's too dense." And I looked at the list of attendees, and knowing many of you, I thought that wouldn't be the case because of the level of commitment and professionalism we have here in the water quality and water community. So you've demonstrated that with your continued attention, and I know we're going to have to keep calling on that expertise here in the room and beyond to try to deal with this issue. But I'm pretty confident, despite the complexity, that we have the talent to do it here in North Carolina, along with our willingness to look at what's worked elsewhere and what's not worked. So give yourself a round of applause, and I hope you'll go forward and help craft some solutions to this nutrient problem. Thanks. [APPLAUSE]

[END OF FORUM]