# NC NUTRIENT SCIENTIFIC ADVISORY BOARD MEETING SUMMARY
# MARCH 6, 2020 @ TJCOG
# 9:30 AM – 12:00 PM

## Attendees

**Members / Advisors**
Charles Brown - Cary
Morgan DeWit – Chatham County
Sally Hoyt – UNC
Alisha Goldstein – Chapel Hill
J.V. Loperfido – Durham
Andy McDaniel – NCDOT
Haywood Phthisic – LNBA
Peter Raabe – American Rivers
Peter Schneider - Greensboro
Allison Schwarz Weakley - Chapel Hill
Forrest Westall - UNRBA
Sandra Wilbur – Durham
Kristine Williams - Greensboro

**Facilitator**
Jenny Halsey - TJCOG

**Guests**
Teresa Andrews – Guilford County
Maya Cough-Schultze - TJCOG
Jacob Dorman – Contech Engineering Solutions
Gerald Lynn Featherstone – Haw River Assembly
Stan Fortier - Apex
Dan Marcom – Greensboro landowner
Wesley Poole – Orange County
Steve Wall - UNC

**DWR Staff** www.deq.nc.gov/nps
Patrick Beggs
Trish D'Arconte
Nora Deamer
Rich Gannon
John Huisman

## Agenda Topics

- Approve meeting summary from February 7, 2020.
- Learn about Jordan Nutrient Rules readoption timeline
- Update on Jordan Lake One Water (JLOW)workgroups
- Share ideas on Jordan Rule readoption

**Meeting Materials and the NSAB Charter are available online:** www.deq.nc.gov/nps

Update: 3/17/20 - The NSAB will not meet in April.

**Update: 4/9/20 – The NSAB WILL MEET REMOTELY on May 1.**

# Meeting Summary

Jenny Halsey, (TJCOG) opened the meeting with introductions and a review of the agenda.

The February 7, 2020 meeting summary was approved.

## Jordan Nutrient Rules Readoption Timeline and JLOW update.

Patrick Beggs, DWR, presented the draft timeline for Jordan rules readoption, an explanation of how JLOW fits into the rules public involvement, and an update on JLOW workgroups. This was followed by an NSAB discussion of the topics.

**DRAFT Jordan Rules TimeLine:**

**2020**

- Evaluate NC Policy Collaboratory findings
- Engage all stakeholders / Seek feedback
- Fully participate in JLOW
- Receive JLOW recommendations

**2021**

- Develop rule concepts
- Engage all stakeholders / Seek feedback
- Develop draft rules

**2022**

- Revise and finalize draft rules
- Engage all stakeholders / Seek feedback
- Develop fiscal note

**2023**

- EMC approves rules and fiscal note for public comment
- Hearing Officers deliberate
- EMC adopts rules
- Rules Review Commission approves rules

**JLOW and the Jordan Rules Readoption Plan**

- Fully integrate the JLOW process with rules public participation
- Seek a conceptual nutrient management strategy as a part of the JLOW integrated watershed management (IWM) plan
- Further collaborate with stakeholders to develop draft rules

**JLOW consists of the following currently engaged workgroups**

- Integrated Watershed Management
- Evaluation
- Monitoring
- Finances
- Organizational
- Ad hoc workgroups as needed

The JLOW workplan can be found on the TJCOG/JLOW website: https://www.tjcog.org/jlow

**Jordan Nutrient Rules timeline and JLOW workgroup updates**

- Refer to Patrick's presentation for full draft timeline. In brief: JLOW is fully integrated with rules public participation. JLOW IWM plan will provide a conceptual nutrient management strategy, which will be incorporated into formal rules, which will go before WQC in 2022.
- JV: Is your intent to review Collaboratory products and give seal of approval?
- Patrick: No, the intent is to find what is in Collaboratory products that can help us develop new strategies; make them more digestible for the EMC, staff, and others; and comment on what is workable.
- Rich: EMC members indicated an interest in the Collaboratory's assessment of the current rules and how they could change. The majority of the Collaboratory report is science, with some social science. Recommendations tend to be broad and contain no specific assessment of the rules. We'll provide some of that.
- Sally: Recommends reaching out to affected regulated entities and letting them know about JLOW process. Not sure everyone knows this is how public input is being gathered; she does because of coming to these meetings.
- Rich: Whom specifically might not know?
- Sally: Local govts, state and federal entities; do all Jordan municipalities know that they can be involved in rules readoption through JLOW?
- Patrick: Yes, we have informed them, but we can do that again and be more direct.
- Forrest: Mostly local governments are already involved in JLOW, but it is important to involvement development community early.
- Peter: Had a conversation with Homebuilders Association this week.
- Kristine: Greensboro local homebuilders organization asked David Phlegar to speak to them about his involvement in JLOW

Patrick asked the workgroup members present if they would share updates.

Evaluation Workgroup

- JV: The evaluation workgroup's task is to rate projects regarding whether they meet the triple bottom line (economic, environmental, social). Next steps include considering national organizations' frameworks to do this.
- Rich: At this point, are you looking at this for individual local governments, or the watershed as a whole?
- JV: At this point, just focusing on understanding what others have done.
- Charles: The group discussed finding criteria that can both be used locally and expanded to the larger watershed.

Integrated Watershed Management (IWM) workgroup

- Peter: The integrated water management workgroup is focusing on needs for system changes: What are barriers on the ground, and how could we overcome them? He will be putting together a document for the workgroup's internal review by March 20. Want to start early since no one has done this kind of work at this scale before.
- Sandi: Each group has a OneDrive where they share files; anyone can ask to learn about workgroup products.
- Peter: Invites people who don't have time to come to all meetings to be cc'd on notes—just ask let him know.
- Allison Schwartz: How often do you meet?
- Peter: Currently the IWM workgroup is meeting monthly.
- Sandi: Each group will have report out to the bigger group in 6 months.

Monitoring and Reporting Workgroup

- Andy is leading the monitoring and reporting workgroup. The first task this workgroup will tackle is: What metrics will be tracked, and for what purpose and audience?
  Big picture goals are: 1) Support communication about how well the goals/benefits of JLOW are working, and 2) Track performance of implementation strategies JLOW recommends

Finance Workgroup

- Kristine Williams: Erin Riggs of the UNC Environmental Finance Center is leading the finance workgroup; it is guided by their Collaboratory findings.
  Sandi: This group is also looking at a case study from MN which the UNC EFC found to be impactful, and attempting to find an environmental finance model that could work statewide.

Organization Structure Workgroup

- Peter: The organizational structure workgroup is looking at what other organizations cover large areas of landscape: UNRBA, Catawba-Wateree, SWCDs, and interlocal agreements have all been discussed, and the group is going over benefits and constraints. They want to build an organization that includes all stakeholders that need to be there in decision-making process. There aren't many examples of processes that truly do this.
- This group realizes that having a group of well-intentioned people that come to the table voluntarily to talk isn't sustainable. Therefore a watershed organization is needed, potentially a 501c3 or something more similar to Lower Neuse Basin Association (LNBA) and/or Neuse River Compliance Association (NRCA); it's still being worked out.
- Rich: What sectors will this include?
- Peter: All sectors, ultimately with a seat on a board with both voting and fiduciary responsibility.
- Peter also noted that while the JLOW workgroups are working separately at present, the intention is for all to come together in a few months.

## Discussion of Rule Readoption as it Concerns Development

- Forrest: Interested how will the new Collaboratory information will inform the new rules? Suggest we set up a meeting/group to explore this.
- Patrick identified this as a need.
- Sally: As a state entity (UNC) that's been implementing new development rules since 2011, it's very important that we get credit for all the work of retrofit and development that has been accomplished.
- JV: Durham also holds this concern and has been in effect, implementing new development rules until recently.
- Peter: Any system developed true to a One Water approach will encompass the work of proactive entities in the watershed. A process that doesn't include that would be a failure. We have to answer the question: What is the credit we're looking for, beyond just N/P?
- Andy: One of the strengths of the One Water approach is the triple bottom line aspect, that there's something that everybody will like. Another is an emphasis on partnership and inclusion. To that end, recommend avoiding inclusion of any rule language that creates barriers to inclusion. For instance, in the current rules, every regulated entity has specific load reduction allocated to them. That's a very Clean Water Act / TMDL concept, mainly, focusing on one's own piece of the pie. This is a barrier to consider in readoption process.
- Rich: The conventional approach is to assign load reduction to each entity and provide the opportunity for trading. What's the alternative?
- Andy: That's what JLOW is trying to determine.
- Forrest: UNRBA doesn't want to lose credit for what we've done either. No one wants to be penalized for early action. It's not possible with existing development to get 40-50% reductions. Recommend developing a process where the regulated community can be included as a whole. Existing development, DOT, and agriculture are already impacting water quality.
- Steve Wall: To clarify, the Collaboratory report doesn't recommend a 50% reduction; it just did a model run for that amount.
- Haywood: The One water concept is a good approach. The first nutrient strategies developed involved both a TMDL and a management strategy. The only ones who could be held to anything were those with NPDES permits. The 303d list is a measurement of compliance; it's a problem that compliance is measured this way. Those decisions aren't being made with public input.
- Peter: Under traditional regulatory approach, when one section of a waterbody doesn't meet criteria, you have to come up with a plan for that section. Under a One Water approach, when one section has a problem, come up with a management plan for the whole are rather than coming up with a plan for a specific area only. Where does the regulatory push stop? Federal, state or local government?

## Discussion of development standards to achieve higher levels of water quality protection

- Sally: We need to consider why the rules were delayed. The university implemented the rules because legislation went into effect for us. We need to discuss who needs to pay for efforts to improve water quality. How do these decision impact people and entities? Currently the cost/benefit pushes us towards treatment of redevelopment via buy-down because credits are cheap.
- Trish: Would local governments be willing to consider development more restrictive than 24% BUA?
- Allison: Yes
- Sandi: We've already done this for Falls Lake. Recommend considering disturbance limits vs built-upon area
- Trish: At 10% impervious surface, you get 50% reduction in macroinvertebrate diversity. At 24%, it's even more extensive. There are various ways to structure a management approach; some ideas are a target number or minimum onsite standards
- Wesley: It's hard to keep up with land disturbance; built upon area is easier to regulate.
- Sandi: We need to consider what kind of results we are trying to reach—consider what actions development and regulations push people towards.
- Trish: Developments are being designed with 23.9% BUA so they don't have to put in SCMs. The 10-24% range is bad for the environment and also not an efficient use of space. Is there a way to reduce the cost for redevelopment and intensive development without discouraging stormwater requirements?
- JV: If you were treating for 10-20% requirements, what engineering or landscape design practices are possible for sites in Jordan Lake watershed to implement? Green infrastructure won't be effective enough in the Triassic Basin in Durham for instance.
- Sandi: Durham's UDO includes some incentives for increasing density; developers just choose the easiest, cheapest option. Recommend working with planners to ensure incentives would be used, and talking to homebuilders
- JV: Recommend asking engineering firms as well, for example, when might a green roof makes sense over something else.
- Charles: Single family homes want to increase imperviousness on their lot and may need to install SCMs. We would see more implementation if they didn't need a PE to inspect all SCMs. This is a hurdle to implementation. People will continue to want to increase their impervious surface by expanding their houses; we need ways for them to do that and offset their stormwater impact. Cary currently has incentive program to get people to implement GI practices if they maintain it for a certain period of time.
- Peter: SCM design standards are very specific and rigid. You have to demolish things to put them in, or not implement them at all. Could there be more flexibility in the design standard? Understood that designs were put in place to ensure safety/certainty, but sometimes the designs get in the way of themselves.
- Patrick: Are UDO changes feasible?
- Sandi: It would be a process, but could be an opportunity

- Sally: One recent example of incentives for stormwater treatment is the redevelopment of Blue Hill, a neighborhood in the floodplain in Chapel Hill. There's been a conversation about making incentives high enough to make a difference.
- Allison: Chapel Hill couldn't do stormwater treatment for new development per rules, but came up with an incentive—a special district where developers must follow the standards in place or treat 50% of impervious area.
- Sandi: A Durham example: if buying offsets, they required developers pay an extra 5%. They have since had to remove this requirement. No one complained about paying the extra cost though.
- Patrick: Why did this work?
- Sandi: It wasn't a high cost, and it didn't take developers any extra time.
- Jacob: It worked because there was no maintenance required!
- Sally: Agrees with Sandi—we need to think about whether we are pushing development out into less developed areas.
- Sally: Likes that current rules allow, but do not require, development to meet requirements by overtreating. What works best will vary based on location. Volume as a metric can be problematic in the Triassic Basin. We can't use all practices as effectively.
- Forrest: It ends up being an poor optics issue when private citizens can't subdivide land and build. Is it possible to require passive stormwater management that doesn't require engineering design.
- Sally: Recommends simpler methods such as for disconnected impervious— e.g., if lot slope is less than 8% and downspouts connect to grass, you're good.
- Wesley: May need a larger disturbance trigger on rural lots. Recalled an example of a house in the center of a 10 acre lot, not near streams, that triggered stormwater requirements. This reflects how land disturbance is not always a good metric.
- Allison: Legislature made it so we can't force redevelopment to treat stormwater
- Peter: Are any local governments building on top of this, say, to cost-share with developers?
- Allison: My concern with JLOW is that incentives are great, but we also need very strong rules that are enforced. Developers are not going to do things that cost them more money.
- Sandi: There are other examples of working with developers; but local government has to pay for it, or require it.
- Peter: Raleigh's done a green stormwater plan, and developers haven't taken them up on implementing it.
- Patrick: Do you think that's because the incentives are good enough, and therefore not really incentives?
- Peter: Raleigh's studying that right now. Homebuilders association were part of the planning process and said that it would be amenable to developers.
- Sandi: It's about time and money. If they think a green infrastructure project will slow down the review, they won't do it.
- Allison: From experience on the Chatham County planning board, the only thing most developers want to do are wet ponds.

- Peter: The disconnect between construction and post-construction stormwater in NC is part of the reason for this problem. Sediment and erosion control drives developers towards sediment ponds, which the existence of encourages wet ponds for post-construction.
- Sally: Peak discharge requirements also drive this choice; it's not possible to meet them with just bioretention.
- Forrest: As a former regulator, recommend rewarding when developers cooperate and punishing when they are recalcitrant. Developers like to get things approved quickly.
- Allison: In Chatham, developers took advantage of conservation subdivision incentive by doing dense development and then offsite septic.
- Sandi: Developers live for loopholes.
- Charles: From the post-construction perspective, cost drives people towards wet ponds. Homeowners, via HOAs prefer this because multiple bioretentions are too expensive when one wet pond would do the job. Could be $30,000 for a wet pond; $100,000 for multiple bioretentions.
- Trish: That makes me think we may need to update the data used for fiscal notes to include maintenance effort, risk, any other true costs. Fiscal note found infiltration systems to be the most cost-effective, and no one's doing those.
- Patrick: Would you get pushback for coming up with incentives that work? For example, if there were a big benefit to developer and to water quality?
- Sandi: The main thing is to show that it's cost effective.
- Peter: It depends: an incentive for whom to do what? An Anderson homes 1500 acre development vs one bioretention on one citizen's private property require vastly different incentives.
- Peter: Recommend asking the question: Are SCM designs so stringent that they change the landscape?
- Rich: Coming back to Sally's point that peak discharge matching requirement is driving developers to go to wet ponds, the Collaboratory report suggests the need for volume control as large rain events drive loading.
- Sally: Volume control can be great in low-density developments, but there's certain places it won't do, specifically high-density areas downtown or on campus where there is >50% impervious. Also, consider how regulating storage and release is different from infiltration and evapotranspiration.
- JV/Peter: SCMs aren't designed for big storms; we may not see treatment in that volume.
- Sally: CWP recommends designing for the 90$^{th}$ percentile storm

## Updates and Comments

Peter: If you're not involved with JLOW and want to be, please get involved! Also, today is the closing of the study for 3 locks and dams on Cape Fear. Eventually we expect a nutrient strategy for algal blooms behind locks and dams.

John Huisman: Thanked everyone for input; it's helpful to hear what hasn't worked, as well as constructive suggestions.

Steve Wall: The listerv is a valuable outreach tool.

Lynn Featherstone: Thanks for giving CFRA.org structure a plug; we want to be involved.

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