

High Rock Lake Nutrient Rules Engagement Process Stormwater Technical Advisory Group (TAG) Meeting #4

June 7, 2023 / 1 - 3 pm / Salem Lake Marina & Fishing Station

Meeting Goals

As a group, consider and work toward consensus on:

1. New Development Rule
2. Post-Construction Tiered Proposal
3. Local Applicability
4. Other minor elements

Participants

TAG members: Kelsie Burgess, Brent Cockrum, Justin Gray, Kevin Haynes, Danica Heflin, Kelway Howard, Keith Huff, Scott Leonard, Andy McDaniel, Zack MacKenzie, Chris Mills, Ben Parker

NC Division of Water Resources Team: Rich Gannon, Joey Hester, Trish D'Arconte

DSC Facilitation Team: Maggie Chotas and Paura Heo

Observers: Judy Stalder of the Steering Committee; an AmeriCorps Volunteer and guest of Kelsie Burgess by the name of Hailey (last name unknown).

Meeting Summary

Agenda Overview

- ❖ Welcome / Introduction & purpose of the meeting
- ❖ New Development Rule
- ❖ Post-Construction Tiered Proposal
- ❖ Local Governments Applicability
- ❖ Minor Elements
- ❖ Next Steps
- ❖ Closing

The group is approaching consensus on the following items:

1. Proposed New Development Rules

- No new nutrient increases (project/plan-based)
- Protect receiving streams.

2. Local Applicability

- NMS is watershed-wide
 - Includes the entire watershed including the sub. above the Kerr- Scott Dam
- Patchwork plan
 - NMS applies only those to the areas experiencing high growth
 - There is a Qualifying Alternative Program for those jurisdictions that are in-progress of MS4 (i.e., High Point in Phase II).

3. Minor Elements

- Non-controversial items from other NMS's presented to the group for review
- The group verbally agreed to most items
 - with the exception of changing "5%" to "6%."
- SW TAG members will re-review this section at the next meeting with the minor change to establish formal group consensus.

What's Next

Next steps and action items listed below and in the table.

- Regarding the above three items, discussion was headed towards group consensus; however, the meeting adjourned before consensus was clearly established.
- Stormwater management tiers, criteria, and treatment options require further discussion.
- SW TAG rules are contingent upon the SWMM's (stormwater management model) determination.
 - SWMM exercise will take at least one year to complete.
 - The earliest that the NMS rules would apply would be 2026.
 - The model will determine storm control measures and treatment.

RESPONSIBLE PERSON(S) / SUBJECT		ACTION ITEMS
@All SW TAG members		1. Email Joey Hester with potential dates for the next meeting (July 2023)
@ DWR (Trish D'Arconte/ Joey Hester) re: NC Statutes for Stormwater and Development		Looking to identify areas where a holistic approach, i.e., One Water Approach could be applied to address Andy McDaniel's desire for a Strategy- or Program-Level goal 2. Share relevant Statutes with the group Stormwater Rules 15A NCACC 02H .101-.103 (included in the calendar invitation for Meeting 4) Stormwater Rules NC G.S. 143-214.7 (from Trish D'Arconte)
@Joey Hester	re: Meetings	3. Would the lobby area of the Lake House be able to accommodate the group's needs?
		4. Continue to remind TAG members that there will be options for cross-learning/cross-pollination.
	re: SWMM	5. Share preliminary findings with Bill Hunt's feedback.
	re: Minor Elements	6. Will change "5%" to "6%" for consistency

Key Links

- [Citrix ShareFile Folder](#)
- [NC G.S. 143-214.7](#)
- [15A NCACC 02H .101-.103](#)

Meeting Summary

Introduction & Purpose of the Meeting

Maggie Chotas led a role call around the table where meeting attendees shared their name and a wish for the meeting.

In addition to the listed TAG members present, Judy Stalder of the Steering Committee and an AmeriCorps volunteer for the City of High Point were in attendance as observers.

The consensus items were discussed first to provide ample time for review and polling. Post-construction stormwater tiered proposal was the last discussion item (slightly deviating from the agenda).

Agenda, Ground Rules & Consensus

The main goals for today's meeting are centered on getting closer to reaching consensus. Maggie Chotas reviewed the group's Ground Rules while Joey Hester went over the group's definition of "consensus."

The HRL Engagement Process Charter defines consensus in this way.

- Consensus requires the active participation of everyone in the group and an atmosphere where disagreements are respected. When someone disagrees, the goal of the group shall be to discover the reason for the objection and to find a way to work toward meeting that need in a revised agreement. Consensus is being defined as at a minimum, "I can live with and support the decision."
- Joey Hester emphasizes that one's consensus position today is not the equivalent of blanket "approval" across the board. Furthermore, the rule process has reviews built into various points of the timeline where feedback and approval are contingencies.
- If consensus is not reached, there is a need to capture dissenting opinions for the record (and to share with the Steering Committee), as well.

Summary of Consensus Items

Joey Hester further clarified the process. He shared this information:

- Some parts of the rule are up for consensus vote ahead of others.
 - TAGs may re-assess individual elements when the entire rule package is up for discussion, even if these parts have already been agreed to, in principle.
- Detailed Process Steps
 - Stormwater TAG makes recommendations (to Steering Committee)
 - Steering Committee offers a formal proposal
 - DWR drafts rules that incorporate as much of the proposal as possible
 - Rules are shared with the stakeholder community for comment
 - If necessary, DWR amends the rules based on feedback

DWR team reiterates, consensus approval is the first step in this process. It is not the last, nor does it signify final approval.

Proposed New Development Rule Goals

Joey Hester present New Development Rule Goals. He shares context and examples of New Development rule goals from the Falls & Jordan Lakes and Neuse/Tar-Pamlico Lake Strategies, from which these goals were derived.

Purpose of Rule Goals

- Rule goals help put the overall intent of the New Development rule into writing so that the treatment requirements are understood according to their desired result.
- Helps DWR plan and develop detailed technical standards to satisfy the goal.
 - One path vs. another could require very different treatment requirements.
 - When local governments comply with the rule's technical standards for each new project, they are deemed in compliance with the rule
 - Local governments will not be held at fault for failure to achieve overall rule goals.
 - If the technical standards developed fail to achieve the rule's stated goal, then DWR is responsible for refining the rule.
- Unique to the HRL strategy is the early intervention of and the focus on phosphorus reduction
 - Phosphorus is primarily deposited from sediment suspension.
 - This strategy will focus heavily on erosion control and sediment delivery.

Goal Elements

- No new nutrient increases (project/plan-based)
 - Joey Hester notes that the overall strategy will have a numeric target based on Tetra Tech's data, however the primary goal for stormwater on new development is for no new load increases at the watershed level, as was intended the Falls & Jordan Lake strategies.
 - An alternative approach would be to create an even more specific project-level nutrient target scaled on a model.
 - A model would then have to be created. Then, DWR would be required to develop a composite nutrient rate target.
 - Andy McDaniel would like to see the One Water Approach incorporated into a Strategy- or Program-level goal.
 - Keith Huff echoed the desire for a more holistic view, one that is non-development-initiated
 - Rich Gannon added that recent stormwater rules included provisions for doing regional SW controls, and he would expect to do the same thing in HRL, which would approach the idea of a holistic goal to the extent that regional control is considered 'One Water'.

- Joey suggested the possibility of adding a fourth point to the proposed New Development goals to capture the OW approach
- Protect receiving streams' physical and biological integrity from erosive flows
 - New Development rules would be intended to accomplish a treatment goal that limits impacts on receiving streams.
 - The regulation would not be applied to the receiving stream itself.
 - Andy McDaniel proposed “protecting designated uses” as a goal element.
 - The DWR team notes that the Clean Water Act protects designated uses.
 - Mr. McDaniel’s goal suggestion is deemed too broad, since the violation of the Clean Water Act is the reason for starting this rulemaking process.
- Protect lake from new development impacts
 - New Development requirements should apply to all projects within each jurisdiction
 - There is a reasonable understanding that returning land to a forested condition is not feasible; the rule refers to pre-development conditions.
 - Pre-development = land as is, now;
 - Literature review for each land use type that provides an approximate loading rate

Local Applicability

This item is up for consensus approval. The key points are the two options for how stormwater controls would be applied to HRL watershed.

Key Points

- NMS is watershed-wide
 - Includes the entire watershed including the sub. above the Kerr- Scott Dam
- Patchwork plan
 - NMS applies only those to the areas experiencing high growth
 - There is a Qualifying Alternative Program for those jurisdictions that are in-progress of MS4 (i.e., High Point in Phase II).

Key Considerations

- DWR states that for rule-makers, a watershed-wide applicability for consistency’s sake makes the most sense.

- Members of the TAG make a show of 1,2,3 fingers indicating
 - 1 – Not approved
 - 2 – Could approve
 - 3– Approve
- Scott Leonard does not approve of a watershed wide applicability. He is concerned about the economic impact of controlling the entire watershed.
- Danica Heflin states that if Scott Leonard does not approve, nor can she.
- Scott recommends protecting X miles from the source.
 - Joey Hester clarifies and notes that if only the lakes and the immediate surrounding areas are controlled for, then all of Wilkes and Alexander Counties would be excluding from stormwater controls.
 - DWR notes that protecting headwaters via SCM's is essential to protecting streams.
- Mr. Hester's elucidation points register with Scott Leonard and changes his consensus poll vote to 2, approval.
- Danica Heflin changes her position, as well, to approve the applicability.
- Consensus approval is reached on the matter of Applicability; stormwater controls should apply for the entire watershed.

Minor Elements

Joey Hester introduced these noncontroversial elements for consensus approval.

Key Points

- Individual single-family residential lots w/ < 5% BUA are exempt from New Development Stormwater
- Road-only or sidewalk-only projects do not require treatment, can comply with offset payments
- Ongoing SCM maintenance in perpetuity is required
- Education, mapping, and illicit discharge detection and elimination will go in Existing Development rule

Members of the TAG conducted a brief discussion and agreed to the following.

- The group verbally agreed to the items with the exception of changing "5%" to "6%."
- SW TAG members will re-review this section at the next meeting with the above change and establish formal group consensus.

Post-Construction Tiered Proposal

Joey Hester presents a proposal for post-construction stormwater control measures for review. The group will preliminarily review the categories and thresholds. Further review of treatment measures will follow after completion of the SWMM model.

	Open Drainage (No curb & gutter)	Curb & gutter
< 6% BUA	Exempt	Not allowed
6% ≤ BUA < 12%	<ul style="list-style-type: none"> • Vegetated conveyances only • Disconnect IC from conveyances • Disperse IC-concentrated flows • Treat “car habitat” IC w/runoff-reducing 2^o SCM or 1^o SCM 	Treat all IC w/1 ^o SCM per SWMM model rec’s
12% ≤ BUA < 24%	<ul style="list-style-type: none"> • Vegetated conveyances only • Treat all IC w/runoff-reducing 1^o SCM or w/1^o SCM per SWMM model rec’s 	<ul style="list-style-type: none"> • Treat all IC w/1^o SCM per SWMM model rec’s • Rate control for stream protection per SWMM model rec’s
BUA ≥ 24%	N/A (doesn’t happen)	Same as above *

- Categories up for a consensus decision.
- Finalized after the SWMM modeling project.

Key Considerations

- Existing controls (elsewhere in the state) have been insufficient in keeping nutrient loads from increasing
 - Holds a certain volume of runoff but only for a short period
 - Effective capping at peak flow makes the duration of flow longer; erosive flow volume is drawn out.
 - The above points cause streams to lose buffering capacity
- Streams begin deteriorating at 10% overall BUA. High Rock Lake was at 9.5% impervious/developed land cover at baseline
- Streams become non-supporting at 25% impervious. A 24% high density limit for stormwater treatment does not protect the watershed against nutrients.
- Brent Cockrum notes that there are regulations now that affect Open Gutter and Open Drainage categories, so he cautions against using them as differentiators.

- Brent notes that local regulations can require curb & gutter where there is erosion potential, including in low density settings. Not allowing curb & gutter will be a problem there.
- DWR's intent is for these post-construction stormwater controls to apply to the entire watershed

Key Questions

The above points drove a productive discussion. The following questions came out of that discussion.

- The SWMM data will not be available at least for another year. What does that mean for our rulemaking?
 - SWMM is Stormwater Management Model. This workplan is being developed with the assistance of Bill Hunt and other SW professionals, and project results will define storm size treatment requirements and other important criteria such as infiltration and recharge.
 - The results are necessary for assessing treatment levels/requirements so we may be required to wait until the study findings are released, at least one year.
- Andy McDaniel asked what year the rule would go into effect.
 - If the study is completed within the expected timeframe, then the NMS will be implemented by 2026. It would take longer if the SWMM Model takes longer than anticipated.
- Scott Leonard is curious about the timeframe so he can prepare aerial shots of the County (for reference) before the rule goes into effect. He notes that it will be important to have robust baseline data of land in its current use to use for future reference.
 - Rich that info is always helpful and notes that it would be most helpful with buffer rule. Forcing effect through the rule. Rich also shares that those aerial views may already exist (State GIS or private).
- Brent Cockrum raises question about definitions; i.e., how is 'car habitat' defined?
 - Joey Hester assures Mr. Cockrum that developing and disseminating operational definitions will be part of this process.
- Keith Huff: "For the open drainage projects, will there be maintenance requirements? Because ditches are notorious for eroding. Current 2H low density rule requires O&M to MEP; but this proposal sounds mandatory, which will be different. The only way I know to achieve that is a plat."
- Kelway Howard joins and inquires about the trigger for the control. "What is the trigger?"
 - Overall proportion of BUA to lot size?

- BUA to the overall plan?
- Trish D'Arconte poses lot size if not BUA?
- Keith Huff notes, "we are not talking about disturbed area."
- Also, he says, "if we are looking at components in rule with operative maintenance standards, then O&M would also be contributors to the nutrient loading."
 - Another TAG member poses this scenario and asks how the PCSW control would apply to Commercial development with no curb nor gutter but fed by a road [with a curb].
- Andy McDaniel notes that the BUA thresholds are not a reliable framework for the transportation sector. Mr. McDaniel notes that NC DOT designs to the needs of travel. The very last step in the process is to purchase land and develop it. The BUA is and will always be very high because the DOT aims for the smallest possible footprint.
- Brent Cockrum, Keith Huff, and Kelway Howard also weigh in regarding the BUA thresholds, noting the disparities the thresholds will create in rural vs. urban areas.
 - Joey Hester responds by noting that he realizes that these thresholds could capture new projects including single, family residences.
 - "People gaming projects to squeeze under 24% BUA is part of what got us here in the first place." Mr. Hester reminds TAG members that the purpose of this group is to reasonably address the issue of nutrient loading via SCMs since existing controls, have not adequately addressed the issue.
- Danica Heflin admits that the technical requirements and treatments are out of her area of expertise.
- That said, Ms. Heflin notes that from an educational standpoint, she sees education and shared resource pooling as a way to understand and move forward with the BUA thresholds set forth by DWR in this tiered proposal (6 -12%, 12 - 24%, and >24%).
- Ms. Heflin defers to the local government representative, Scott Leonard, and asks for his insights.
- Scott Leonard shares these details regarding Davidson County:
 - In Davidson County, projects are regulated by lot size.
 - Everyday we approve a small subdivision of 2-3
 - Regarding zoning, only 35% of the lot can be covered by the roof. Enforcement is a low priority.
- Scott Leonard shares that enforcement is a major concern. Smaller governments do not have the capacity for enforcement.
 - For most subdivisions, government deal with surveyors, not the owner/developer.

- Edgar Miller inquired about a larger project on Boones Cave Road in central Davidson County.
 - Mr. Leonard state that for major projects, engineers certify the project site.
- Both Scott Leonard and Edgar Miller have questions around which treatments large developments are using presently.
 - Open drainage as opposed to open gutters.
- Several TAG members, including Brent Cockrum, Danica Heflin, and Andy McDaniel agree that the table represented the tiered proposal of controls is confusing.
- Members of the TAG agree to further consider and discuss lot size applicability thresholds in light of small lots with single-family residences.