

High Rock Lake Nutrient Rules Engagement Process Stormwater Technical Advisory Group (TAG) Meeting #7

November 28, 2023 / 10 – Noon / Virtual via Zoom

Meeting Goal

For TAG members to have the opportunity to achieve consensus on the following:

- Tiered BUA thresholds for post-construction stormwater requirements, including basic treatment requirements at each
- Volume reduction requirement
- Stream protection criteria
- Post-construction stormwater treatment requirement applicability trigger

Participants

TAG members: Brent Cockrum, Justin Gray, Danica Heflin, Kelway Howard, Keith Huff, Melinda King, Scott Leonard, Brian Lipscomb, Andy McDaniel, Zack MacKenzie, Edgar Miller, Chris Millis, and Ben Parker

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

DSC Facilitation Team: Maggie Chotas & Laura Swartz

Observers: Judy Stalder of the Steering Committee

Meeting Summary

Agenda Overview

- ❖ Welcome / Introduction & purpose of the meeting
- ❖ Present, discuss and consensus check on Tiered Thresholds
- ❖ Present, discuss and consensus check on Volume Reduction Requirement

- ❖ Present, discuss and consensus check on Stream Protection Criteria at high development threshold
- ❖ Present and discuss Applicability Trigger
- ❖ Next Steps

Key Links (for Quick Access)

- [Citrix ShareFile Folder](#)

Detailed Meeting Summary

Introduction & Purpose of the Meeting

Joey Hester welcomed everyone and shared that the purpose of this meeting was to discuss and gather feedback on major topics relating to the Post-Construction Stormwater rules.

Maggie Chotas reviewed the agenda, Working Agreements, and she also explained that after discussion of each topic, TAG members would be called upon to express their level of consensus through an official vote. The criteria for consensus is based on the five point scale used throughout this process.

Andy McDaniel asked for clarification about the goals for the meeting, and whether the TAG members need to give specific feedback on details. Joey explained that he wants this group to discuss, for example, whether 6 and 12 are good break points for the BUA cutoff, rather than discussing whether the breakpoint should be 6 or 5. If we can keep the discussion to the general elements, then we know everyone agrees on the overall structure.

Presentation, Discussion & Consensus Check on Tiered Thresholds

Joey Hester explained the key points:

- The “stormwater collection system” is defined via North Carolina statute: 15A NCAC 02H .1002(48).
- The cut-offs are 6% and 12% and we are trying to avoid the terms “low and high density” because this would not align with those definitions in other places.
- At 12% you are required to add the stream water protection.
- If there is no stormwater collection system you have vegetated conveyances only.
- If you *do* have a stormwater collection system, then you are required to treat site runoff from 1” storm with a primary SCM, including volume reduction requirement OR treat site runoff from 90th percentile storm with a primary SCM.
- At 12% you add a stormwater collection system.
- In sum, 6% and 12% are our cut-offs, and BUA is defined via statute.

- There are several exemptions, and they are consistent with exemptions used elsewhere.

After a previous meeting, Judy Stalder brought up a key point about new development. DWR's understanding is that the initial plat and site design permit would need to do a projected BUA percentage for the long-term. The builder in later stages of development would not have to do a stormwater permit as long as they comply with that projected BUA percentage. Once the site has surpassed that initial projected BUA amount, at that point, the new builder would have to apply for a permit revision.

- Scott Leonard agreed with the point that it is up to the developer to make initial projections for the whole site. Someone on staff will have to monitor the development as it progresses. Then the developer walks away. Are we thinking we would keep the initial developer engaged throughout the process?
 - o Joey Hester responded that he doesn't know exactly how that would play out.
 - o Brent Cockrum offered that the overall developer would not be on the hook, but instead the HOA or new developer would be responsible. When a new builder comes in for a plot plan, the new builder has to manage. It gets difficult when the owner of the home then goes to add on an additional structure to the property.
 - o Joey Hester explained that we lowered the high-density threshold down to 12% because we know that sheds will be built. By dropping the threshold down to 12%, we anticipate some of this. Joey acknowledged that this doesn't address the staffing issue.

Chris Millis asked if the 12% threshold has been decided on, or if the 24 - 12% discussion still at play?

- Joey responded that the scientific evidence suggests that once you pass 10% in aggregate, streams fundamentally break down and all healthy biological activity stops. So we know that we can't get 10%, but we also know that 24% is not protective in other watersheds. Therefore, 12% is an attempt to find a happy medium.
- Today's consensus vote will address this.

Andy McDaniel expressed that he doesn't know if 6 and 12% are the right numbers. He does not feel comfortable with the concept of lowering it to 12% on the basis of having a factor of safety for non-compliance. He thinks non-compliance should be handled as a compliance issue, rather than having the rule hinge on the assumption of non-compliance.

- Rich Gannon responded to Andy by saying that going to 12% is not just because we anticipate non-compliance. Choosing 12% is primarily because 24% has not been protecting streams appropriately.

Consensus vote for Tiered Thresholds

TAG members were asked to indicate their level of support for the 6% and 12% tiered BUA thresholds for post-construction stormwater requirements, including basic treatment requirements at each, using the scale below:

1. Strongly agree & support
2. Minor concerns but still support
3. Concerns but can live with it
4. Major concerns & do not support
5. Actively oppose

10 TAG members participated in the vote

- 1 vote for strongly agree and support
- 1 vote for minor concerns but still support
- 5 votes for concerns but can live with it
- 3 votes for major concerns and cannot support
- No votes for actively oppose

TAG member rationale for votes:

- Keith Huff said he had concerns but can live with it. Less than 6% will not occur in our community. My community will need to focus on the greater than 12%. I'm concerned about the practical aspects of this.
- Brent Cockrum said he voted "major concerns and cannot support" due to the discrepancy for how these percentages have typically been used differently in the past and concerns for percentages like this across the entire watershed.
- Scott Leonard said he didn't vote 4 because of the exemptions and didn't vote 2 because of the impact on a single family lot.
- Kelway Howard said he was focused on the lower density and was trying to understand the implications. If we have a low developed site (residential) and it's over 6% impervious, there will need to be an SCM to treat the driveway. That's the trouble we've run into with Falls Lake. It's very cumbersome for a single-family owner to deal with.
- Danica Heflin said she voted 3 and noted her major concern was similar to those we've heard. It's not for the high-density areas but said she was most concerned for communities where we do not have the staff to hold developers accountable. It would take a stormwater fee to be able to get staff and that is a very complicated and contentious process that could be an undue burden on local governments.
- Edgar Miller said he was thinking about 12% versus 24% and found the rationale for doing that very compelling. He noted he recognized the practical implications of the "rain-tax" and said he would like to discuss the single-family issues.
- Chris Millis said he liked the approach of tiering in an effort to encourage low-density. But you need to make low-density achievable. He said he voted 4 because he thought we can make the low-density more achievable.
 - Joey Hester clarified that if you have a stormwater protection system you are tripped into the < 12%, not into the > 12%.
 - Chris Millis responded with a comment about a curb and gutter system.

- Rich Gannon clarified that DWR should have said to meet the low-density requirements in statute 1003 because those allow for what Chris is talking about.
- Chris Millis – I would like to see the low-density option be achievable for sub-divisions as well. That would be a great improvement.
- Justin Gray said he voted 3 because overall he liked the approach. He noted he was trying to see how this aligns with other watersheds.
- Andy McDaniel said he had major concerns because of the BUA and the no collection systems are coupled together. There may be a fatal flaw in the way the table is structured for no-stormwater conveyance system. A vegetative conveyance is not the same as a swale.
 - Rich Gannon responded that the way he reads this, there is not a fatal flaw.
 - Andy McDaniel responded that a vegetative conveyance that does not meet criteria is a channel, and a channel is part of the stormwater collection system.
 - Joey Hester added that Andy’s point is well-taken, and Joey will circle back with Andy to ensure that we are “writing what we are meaning.”
- Zack MacKenzie asked what will trigger us needing to consider the density? What if the lot is not an acre? If the lot is already platted? If the ditches are part of the subdivision but they end up in the right-of-way, who will maintain that? Is it the city?
 - Trish D’Arconte responded that the roads that are a part of a subdivision are not a part of this. This is something that was not a question for local governments for the Neuse and Pam.
 - Zack would like clarification on this point.
- Ben Parker shared that he had had similar concerns as Zack as there are a lot of the new developments.

Presentation, Discussion & Consensus Check on Volume Reduction Requirement

Consensus vote for Volume Reduction Requirement

TAG members were asked to indicate their level of support for a volume reduction requirement on projects that exceed 6% BUA, using the scale:

1. Strongly agree & support
2. Minor concerns but still support
3. Concerns but can live with it
4. Major concerns & do not support
5. Actively oppose

Volume Reduction Requirement (SCS method)

- Portion of 1" of runoff that is required to be achieved via evapotranspiration, infiltration, or slow filtered discharge

Hydrologic Soil Group	Volume Reduction Requirement
A	0.38
B	0.26
C	0.13
D	0.07

Joey Hester explained that we have tried to steer people away from wet ponds, because they do not meaningfully reduce nutrients. Wet ponds do provide limited nutrient treatment, but little to no volume reduction.

Official TAG Member vote and Major Concerns:

- 5 minor concerns but still support
- 5 concerns but can live with it
- 1 vote for actively oppose
 - o Major concern from Chris Millis. Chris said he was happy to look at increasing the one-inch, but for the overall basin, evapotranspiration is already included. He said he didn't understand how that is achievable given that it's already baked in. It would be better to increase design storms.
 - o Joey Hester added that Bill Hunt shared that you don't have to infiltrate it as long as you run it through a medium. The slow filtration will be more useful in this basin.
 - o Chris Millis responded that the operation and maintenance of those systems is a challenge. It would be better to increase design storms.
- NEXT STEP - Chris will follow up with DWR. He is okay with the 90% storm part. He is skeptical about what is meant by infiltration.
 - o Joey Hester - we would rather put in a percentile form, then it depends on what the current published storm is for your area.

Presentation, Discussion & Consensus Check on Stream Protection Criteria

Consensus vote: Stream protection criteria

TAG members were asked to indicate their level of support for the stream protection criteria options provided for projects that exceed 12% BUA

1. Strongly agree & support
2. Minor concerns but still support
3. Concerns but can live with it
4. Major concerns & do not support
5. Actively oppose

Stream Protection Criteria	<p><i>Potential Options for Initial Discussion</i></p> <ul style="list-style-type: none">• Control the 2yr/24hr post-development peak flow rate to 50% of the 2yr/24hr pre-development levelOR• Control the 2yr/24hr post-development peak flow rate to the 1yr/24hr predevelopment levelOR• Detain the volume difference between the post-development 24-hour storm and the pre-development 24-hour storm, releasing the volume over 24 hours
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Joey Hester explained that once you pass 12%, you are given one of these three options. Are you okay with adding a stream protection criteria as written? There are exemptions.

TAG member votes:

- 1 strongly agree and support
- 5 minor concerns

- 2 for concerns but can live with it
- 3 major concerns and do not support
- Rationale of people with major concerns:
 - Brent Cockrum said he was still not a 100% clear on what it is that we are trying to control and that he needed to do more due diligence on his own time.
 - Chris Millis indicated he was open minded on these criteria as they apply to high-density development overtime, but he thought it's too restrictive if you are trying to a disconnected or low-density type product. If you hit over 12%, it would be too evasive for them to be able to achieve it. This disincentivizing low-density.
 - Andy McDaniel indicated he was similar to Brent. He supported the concept of stream protection, but we really have not discussed this as part of the High Rock Lake technical development process. His assumption was that the technical basis for the requirement was going to be wrapped into the SWMM modelling report and he said would like to have that conversation. What is the goal here? How are we going to measure success? How do we know that what is being presented is going to achieve that goal? He said he supported the concept of stream protection, but he didn't know what it was going to take to do that.

Present and Discuss Applicability Trigger

Joey Hester focused on the following key points (which was listed from the Tar-Pam rules, with a few small changes):

- Development Excluded (adapted from 15A NCAC 02B .0731). The following development activities shall not be subject to this Rule:
 - (1) Projects disturbing less than:
 - (A) one acre for single family and duplex residential property and recreational facilities; and
 - (B) one-half acre for commercial, industrial, institutional, multifamily residential, or local government land uses with the following exception: Projects below one-half acre that would replace or expand existing structures on a parcel, resulting in a cumulative built upon area for the parcel exceeding six percent, shall be subject to Paragraph (e) of this Rule;
 - (2) Development of an individual single-family or duplex residential lot that:
 - (A) Is not part of a larger common plan of development or sale as in 15A NCAC 02H .1002; and
 - (B) Does not result in greater than six percent built upon area on the lot;
 - (3) Existing development as defined in rule 15A NCAC 02H .1002;
 - (4) Redevelopment as defined in G.S. 143-214.7(a1)(2); and
 - (5) Activities subject to requirements of the High Rock Lake Agriculture rule.

This aligns with your other rule about 1 acre disturbance threshold. Still meets requirements. Joey also discussed some of the exemptions.

- Exemptions for single-family lots with less than 6% BUA.

Key points from group discussion:

Edgar Miller posted a question about re-development. How is re-development defined on 4?

- Rich Gannon said it was defined in statute. Any development that does not result in a net increase of BUA.

Scott Leonard made a comment about Section 2b, saying it would eliminate single family housing on existing platted lines which would throw every single-family lot into the rule. Could we raise that to 12%?

- Kelway expressed the same concern.
- Rich Gannon asked what size lot do you deal with that you are concerned with?
 - o Scott Leonard said a new lot is required to be 40,000 square feet. We also have hundreds of previously platted lots, and we are already over 6% before you even bat an eye on it.
 - o Scott explained they are vacant or there was a mobile home there. The lot was empty and now they want to build a house on it.
- Edgar Miller clarified that they can still build, but they would have to do the SCMs.
 - o Yes.
- Scott Leonard explained these are almost all open-lots.
- Kelway Howard expressed concerns about children playing in their own yards around water.
- Chris Millis is concerned that this rule is incredibly punitive.
- Rich Gannon asked Scott if a 50-foot wide lot would be disturbing more than an acre?
 - o Scott said no. Maybe we can back off on the vegetative conveyance? The more we add to the individual family owner, the more pushback we will get.
 - o If this is only a trigger for over an acre, then most of the lots near the lake would be excluded.
- Brent Cockrum asked about 1a or 2b. If you meet 1a or 2b, you are exempt.
- Trish D'Arconte added that some local governments have structured this in a better way. We can restructure this so it is more step-wise.
- Rich clarified exemptions.
 - o Trish added that these are the developments that are excluded... a type, b type and c type.
 - o Joey Hester added that DWR will have to work with the Rule Committee to make sure the work is operationalized. Sounds like we can either relax the requirement or raise the exemption size.
- Edgar Miller asked another clarifying question about the 6% in the other rules.
- Scott Leonard said he would follow up with more information to Joey.

Question from Zack in the chat: *Will there be maintenance and inspection frequency requirements established by the HRL rules for primary and secondary SCMs?*

- Joey Hester responded that yes, ongoing maintenance is ensured, so that the benefits that are quantified would be expected to continue. Some small local governments could outsource this to consulting firms.

Joey summarized what emerged from the input of TAG members, indicating that though consensus wasn't reached, we heard a lot of important feedback from all of you.

Next Steps:

1. Joey Hester will write this into a narrative version of the Stormwater TAG report to draft out concepts and share with everyone.
2. The Stormwater TAG report will be shared with the Steering Committee at their meeting on December 12, 2023.
3. The Steering Committee will write a final report by the end of January or February.
4. All documentations will go out to everyone.

Joey closed with thanking TAG members for all of your hard work and commitment to crafting these rules!