

High Rock Lake Nutrient Rules Engagement *Riparian Buffer Technical Advisory Group,* **Meeting #1**

February 27, 2023 / 1-4 pm / Virtual

Meeting Goals

1. Begin to establish an effective buffer working group for the Lake Nutrient Rules process
2. Better understand the rulemaking objectives and informational context
3. Become familiar with the role of and charge to the Buffer TAG
4. Learn about existing strategies for riparian buffers and respond to a HRL recommendation

Participants

Rabih Abou-Rizk, Rob Baldwin, Richard Cockerham, Chuck George, Keith Larick, Edgar Miller, George Morris, Siham Muntasser

DWR Team: Joey Hester, Sue Homewood, Rich Gannon

DSC Facilitation Team: Will Dudenhausen, Maggie Chotas, Ian Ramirez

Meeting Summary

Overview

- ❖ [Agenda](#)
- ❖ [Introductory presentation on how the Riparian TAG will function and the objectives of rulemaking](#) – Joey Hester
 - Informal stakeholder process & public participation
 - Background information on High Rock Lake Chlorophyll-a Impairments
 - Rulemaking timeline
 - Charge to the TAG
- ❖ [Riparian Buffer Rules 101](#) – Sue Homewood
 - NC Riparian Buffer Protection Programs
 - Purpose of Specific Buffer Rules, Implementation & Development
 - Where buffer rules apply & how buffer is measured
 - What is allowed in the buffer? Including forest harvesting
 - Stormwater management in the buffer rules
 - Current setbacks applicable in the High Rocks Lake watershed
- ❖ [High Rock Lake Riparian Buffer Recommendation](#) – Joey Hester
 - Nutrient sources
 - Recommendation
 - Alternatives

Decisions made in the meeting

1. Future TAG Meeting Dates: April 27th, 2023 - 1-3pm

What's Next / Action Items from the meeting

1. If you know anyone else who has a stake in the outcome of this discussion or knowledge that would be helpful, let Joey know.
2. Plan to attend the All Stakeholder Meeting check in March 29.
3. Look at the definition of highly erodible land and how that might factor into the work of the TAG.
4. Revisiting buffer research to see if there is new research, especially regarding changing climate.

Key Links

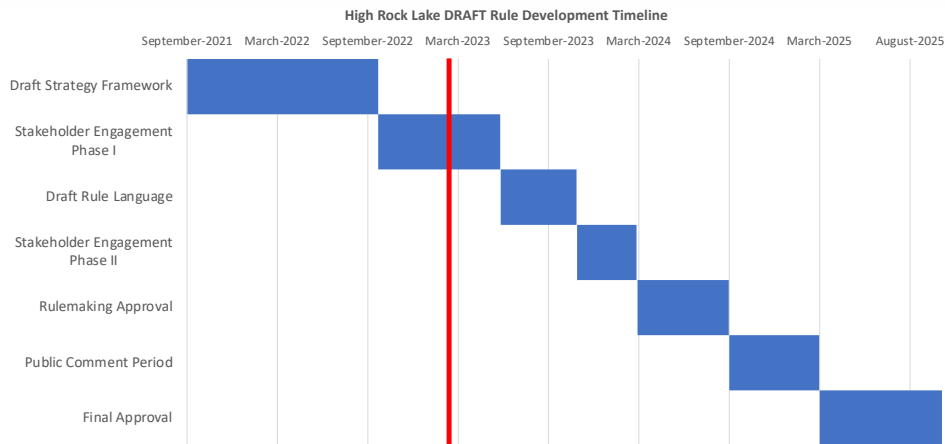
- CREP program Conservation Reserve Enhancement Program
<https://www.ncagr.gov/SWC/easementprograms/CREP/index.html>

Details on Discussion Topics

[Introductory presentation on how the Riparian TAG will function and the objectives of rulemaking - Joey Hester](#)

Key Points

- How participants will interact with the public
- “Why we’re here” - High Rock Lake Chlorophyll-A impairments
- Rulemaking timeline follows:



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- Charge to the TAG, finalized by Steering Committee:
 - What specific management improvements has your sector already implemented for nutrient control since 2006?
 - What further nutrient reduction management steps can you take that would make sense? Consider both examples of more easily attainable and effective opportunities, as well as more long-term or challenging opportunities for your sector.

- What initiation and full implementation timeframes would be needed for each type of management step, roughly speaking?
 - Are there trends or changes on the horizon in your sector that could affect these timeframes?
- Barriers/challenges and possible responses:
 - What are barriers or challenges to these steps? Consider legal barriers, financial barriers, social barriers, equity barriers.
 - What could be done to address these challenges and increase buy-in and support for these steps?
 - Do you think forming partnerships with other groups/sectors could lead to implementation opportunities and positive changes? If so, what opportunities can you envision?
- Would nitrogen and/or phosphorus be most cost-effective for your sector to manage, reduce, monitor, and report? Why, and what are the limitations of each? Can you give rough proportions and scales for the kinds of reductions you think could be achieved

Key Questions

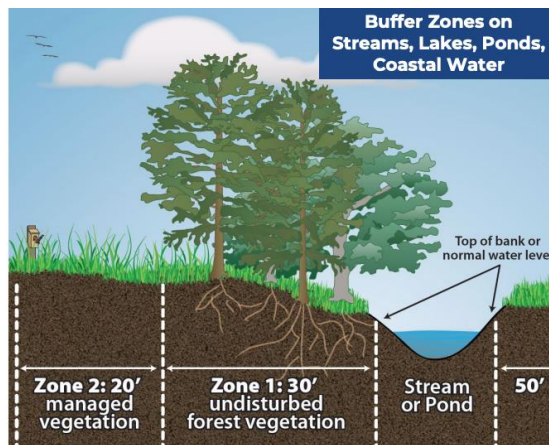
- How this TAG will work compared to the others, and how we can be more direct with recommendations?

[Riparian Buffer Rules 101](#) – Sue Homewood

Key Points

- There are six buffer rules in NC: NC Riparian Buffer Protection Programs: Tar-Pamlico, Neuse, Jordan, Randleman, Goose Creek, Catawba
- Implementation
 - Most implemented by Division of Water Resources (DWR)
 - In some watersheds local governments may request delegation
 - Local governments- Jordan Lake & Randleman Lake Watersheds
 - Exceptions for local delegations/designations: - Forestry - Multi-jurisdictional/boundary projects - Government Projects - Agriculture
- Development
 - Underwent a Buffer Rules readoption process from 2018-2020 to make the rules consistent as much as possible.
 - Not always possible because each watershed with existing rules had their own purpose. Common rules for consistency whenever possible.

- Where buffer rules apply & how buffer is measured
 - Features “approximately shown” on one of two maps:
 - Latest USGS Topographic 1:24,000 scale OR Most Recent Published NRCS Soil Survey
 - Randleman: Also applies if other site-specific evidence indicates the presence of waters not shown on either of the two maps
 - Catawba: Only Main Stem Catawba River/Lakes
 - Applies to Perennial streams, Intermittent streams, Lakes and reservoirs, Ponds attached to streams, Estuaries, Modified natural streams
 - Measurement in Neuse, Tar-Pam, Catawba, Jordan and Randleman:



- Stormwater management in the buffer rules in general allows stormwater to be discharged through the buffer if it's been treated with a stormwater control measure to a certain level.
 - Allows for conveyances through the buffer from approved Stormwater Control Measures (SCMs)
 - Also provides options for:
 - New conveyances when nutrient calculations show achievable rule loading goals.
 - New conveyances with minimal flow rates to account for small areas that cannot be reasonably directed to SCMs due to topography.
 - Realignment of existing conveyances.
 - New conveyances for bypass of upslope runoff.
 - Expanded allowances for linear transportation facilities.
 - Provides a process for stormwater runoff control methods that are not specifically listed in the rule to be considered for approval through an “exception” process.
- Current setbacks applicable in the High Rocks Lake watershed

- Local government programs.
- NPDES MS4 (14 in High Rock Lake). Those have very specific stormwater controls as part of construction and post construction, storm water programs. Most of those have a 30 foot setback. In this context, the term setback means no impervious surface in that section.
- Public education.
- Elimination of illicit discharges.
- Pollution prevention.
- The State has similar like requirements for high quality waters, outstanding resource waters and water supply watersheds where development is managed, depending on whether it's low density or high density, whether you would need vegetated conveyances for stormwater control and run off, or a stormwater control measure and active treatment facility.
- It also has a 30-foot vegetated setback, and those requirements can go up to 100 feet for a high-density project.

Key Questions

- In the case of existing buffer rules, are existing agricultural operations exempt from those when they are put in place?
 - The buffer rules that we have in place now all have exemptions for existing and ongoing uses. Anything on the ground when the rules go into effect is considered exempt, but it's just the footprint of what exists the day. The rules become effective, not the entire property.
- Are there definitional criteria for what can be exempt? For example, does it have to be enrolled in the agricultural land use value program, or the bona fide farm definition?
 - No. The existing uses is what can be documented to be on the ground at the time and it's not specific to agriculture. It's allowing people to continue with what they're doing, even though new regulations come into effect.
 - For forestry, they do have to have a forest management plan or a deferred value. Agricultural ponds are specific to what they are defined in the State statute. But there's no specific exemption for agriculture in general in the existing rules.
 - Inquires on the level of influence the TAG will have on altering rules (discussed in Joey's next presentation)
- As far as the stormwater programs that are in the basin, of those 14 programs, those would only apply in those jurisdictions. Those wouldn't come all the way

down to the river? Those programs would cover streams and buffers within those jurisdictions?

- Yes.
- What is meant by good housekeeping rules for the setbacks?
 - So that was in reference to the local government jurisdictions, not something that's in any of the existing buffer rules. Some examples would be keeping good records, street sweeping, keeping good records on any stormwater issues that they that might arise.
- So how are we going to move forward in terms of the buffer zones? We can't go back, so how will we move forward?
 - That's the big question. There will be a lot of components of the nutrient strategy that hold the line and keep things from getting worse. The stakeholder process is about trying to get people's opinions on just that. DWR can provide a broader context about what its regulatory authorities are. Joey Hester noted DWR has a long list of things that we can do to try and keep things from getting worse, and a short list of things that we can do to try and actually correct some of the historical problems.
- What's the enforcement policy relative to the existing buffer rules?
 - For the buffer rules that are implemented by DWR (not regulated down to a local government), enforcement typically involves being notified of a potential violation and following standard protocol to investigate and address whether there is a violation or not and then how to resolve. Fines can be assessed. Each local government follows their own process to enforce.
- Trout streams are on a lot of farmlands where there are no buffer zones. How will we move forward without big changes?
 - Nutrient rules package will be a big package that will either hold the line or actually reduce the problems. There are different levers to pull.

[High Rock Lake Riparian Buffer Recommendation](#) -- Joey Hester

Key Points

- In order to understand the big picture, look at where nutrient sources come from:
 - Wastewater: POTW, WWTP; Industrial discharge; On-site wastewater (septic systems)
 - Development
 - Household fertilizers, pet waste
 - Construction site sediment
 - Post-construction impervious surfaces

- Roadways
 - Agriculture: Animal waste & Applied fertilizers
 - Streambanks
 - Forests
 - Atmosphere
 - Lake sediments
- Joey Hester noted DWR believes buffers are the most important component just because of the way they interact with a lot of these different sources.
- He presented the following recommendation as a chance for the TAG to respond to it. It is specific as we have been with any of the other rule concepts because there's a lot of history and a lot of existing stakeholder feedback that's gone into thinking through how a buffer rule can work and should work.
- Recommendation to **follow existing buffer rule format**:
 - 50ft riparian buffer protection
 - Zone 1: Inner 30ft
 - Zone 2: Outer 20ft
 - Applies to all surface waters in watershed
 - Existing and ongoing uses protected as of rule effective date (same footprint)
 - Forest harvest allowable in zone 2 w/ ground cover reestablishment, select harvest allowable in zone 1
 - SCM stormwater conveyances allowed
- We're open to hearing a compelling case for deviating from this existing format, but barring that, it's kind of the format that we think will be the most functional and the most palatable to stakeholders.
- Buffers are our most valuable tool to keep nutrient load from increasing
- Change in use triggers
 - Conversion of land use – if you clear after the rule goes into effect, the rule must be followed
 - Addition of livestock to non-livestock agricultural operation
 - Expansion of buildings, dwellings, decks, patios, driveways, etc.
 - Expansion of existing use footprint
- Grass can be maintained/mowed if existing as of rule effective date
- Forest harvest rules apply if already in woody vegetation (i.e. Zone 1 cannot return to grass)
- Fertilization only allowable for replanting
- Also introduced alternatives for discussion, including:
 - Can consider changes to allowable uses (e.g. flash grazing, fencing, mowing, etc.)
 - Catawba lake/main stem only

- Goose Creek 200ft inside of 100yr floodplain, 100ft outside of 100yr floodplain
- Mountains v. piedmont considerations

Key Questions

- What level of influence does the TAG have on grandfather policies?
- Do we know if there are any endangered species affected in High Rock Lake? Or endangered species in Watauga that trickle down to High Rock Lake?
- Our climate has changed and as waterfall, sediment run off has increased. Is research from the 90' s still valid or do we need more up to date research?
- What makes a soil highly erodible?
- What is the incentive for a farmer to get a CREP lease?
 - CREP program Conservation Reserve Enhancement Program
<https://www.ncagr.gov/SWC/easementprograms/CREP/index.html>
- More education and information is needed – how do we spread the word about both the use of pesticides and fertilizers, and the types of plants that are planted in the buffer, and what are most beneficial?