

High Rock Lake Nutrient Rules Engagement Process

Agriculture TAG Meeting 4 Notes

May 8, 2023 / 10 am – 12 pm / Forsyth County Ag. Center

Meeting Goals

For members of the TAG to address:

- How has the Steering Committee's feedback changed your proposal?
- Should local committees be charged with data collection and analysis?
- Are you comfortable incorporating a livestock exclusion provision into rule?

Participants

TAG Members: Allison Brown, Taylor Darnell, Alexandra Dinwiddie, Julie Henshaw, Keith Larick, Grace Messinger, Edgar Miller, Lance Parker

DWR Team: Rich Gannon & Joey Hester

DSC Facilitation Team: Maggie Chotas, Will Dudenhausen & Paura Heo

Observer: Judy Stalder of the Steering Committee

Meeting Summary

Agenda Overview

- ❖ Welcome & Introductions
- ❖ Overview of agenda & review of ground rules
- ❖ Review feedback from Steering Committee
 - Identify overall criticism/support
 - Discuss implementation tracking metrics
 - Identify need for and function of local committees to aid in data collection
- ❖ Discuss livestock stream access
 - Can a new rule accelerate the process of move reluctant producers to act?
 - What funding eligibility can be tied to exclusion (e.g., tax incentives, loans, grants, etc.)?
 - Case Studies
- ❖ Next Steps & Closing

What's Next / Action Items from the meeting

RESPONSIBLE PERSON(S) / SUBJECT	ACTION ITEMS
<p>@All Ag TAG members</p>	<p>1. Next meeting: <i>(In-person)</i></p> <p>May 31, 2023, 2 – 5pm Salisbury Civic Center 315 MLK Jr Ave S Salisbury, NC 28144</p> <ul style="list-style-type: none"> Attend and encourage attendance to the All Stakeholders in-person meeting!
<p>@ Allison Brown</p> <p>Re: Poultry Discussion for next in-person Ag TAG Meeting</p>	<ul style="list-style-type: none"> Contact Mt. Airy, producers and growers regarding their availability for attendance to a meeting on the morning of either 6/7, 6/8, 6/12, or 6/13.
<p>@ Keith Larick</p> <p>Re: Poultry Discussion for next in-person Ag TAG Meeting</p>	<ul style="list-style-type: none"> Contact field level individuals: Justin, Joe, Chad (?), and other producers, growers, or company men regarding their availability for attendance to a meeting.
<p>@ Joey Hester</p> <p>Re: Poultry Discussion for next in-person Ag TAG Meeting</p>	<ul style="list-style-type: none"> After hearing back from Allison and Keith, send email to the entire Ag TAG regarding the next in-person meeting with the <u>date and details</u>.
<p>Reporting & Feasibility (Livestock Exclusion Mandate)</p>	<ul style="list-style-type: none"> Obtain High Rock Lake Assessment, 2021 <p>*In general, Ag TAG members would like to see <u>field level data</u> so they can get a sense of what is feasible regarding overall exclusion rate.</p>

Key Links (for Quick Access)

- [Updated Charge Document](#)
- [Gulf Hypoxia Program](#)
- [Deana Osmond study, Farmer's Use of Nutrient Management: Lessons from Watershed Case Studies](#)

Detailed Summary of Meeting

Introduction, Purpose, and Review of Agenda

- The Agriculture Technical Advisory Group (TAG) met in person at the Forsyth County Center to review feedback from Steering Committee regarding New Development preliminary rules proposal
- Attendance included Judy Stalder, a Steering Committee member interested in observing this meeting.

Review of the Steering Committee Feedback

Joey Hester presented the preliminary proposal for Agriculture Rules and feedback from the Steering Committee.

Key Points

- High Rock Lake in is violation of NC's chlorophyll-A water quality (WQ) standard.
- Nutrient Management Strategy rules are designed to address the issue (reduce nutrient loading).
- Modeling indicates that 40-50% reduction in nitrogen and phosphorus loading are necessary.
- This Technical Advisory Group will determine rules for the agricultural sector including.
- Implementation takes a very long time (decades) to show up in streams and rivers.

Agriculture Preliminary Rule Proposal

- Overall NMS percentage reduction goals will be applied
 - Joey Hester cited the [Gulf Hypoxia Program](#) that applies a comprehensive nutrient reduction strategy/action plan for twelve states from Louisiana to Minnesota

- Utilizes a percentage mandate without specific measurements that would require complex modeling
- Leans on incentives, voluntary actions, cost-share funding
- Agriculture representatives will submit annual report that gauges progress toward achieving the overall goals
- The report will track production and implementation metrics that have been determined through consultation from Steering Committee and other stakeholders
- No nutrient loss/loading model (i.e. NLEW) will be required to demonstrate collective compliance with the overall NMS reduction goals
- The need for local agricultural committees to assist data collection will be determined by the TAG

Steering Committee Feedback

- More interested in livestock stream access management and phosphorus application via waste (animal waste and residual bio-solids) than in numerical nitrogen loss/load modeling.
 - Need ambient data to align progress reports with evidence of improvement
- No need for local committees if they're not improving adoption of conservation practices
- Some kind of watershed oversight committee may be necessary for tracking progress

Key Considerations

Reporting Frequency

Joey Hester provided these options for TAG consideration. He asked for feedback from the group regarding cadence and regarding metrics:

- Alternating reports every 2, 3, 2, 3, 2, 3, etc. years (as opposed to annual)
- Implementation Report
 - 2 years of data
 - BMP implementation
 - Practices chosen by centralized oversight committee
 - Steering Committee can offer a non-binding recommendation to oversight committee
 - Soil test phosphorus results
 - Cost share expenditures

- Strategic Planning Report
 - 3 years of data
 - Overlaps w/ Census of Agriculture publication
 - 2-year report trends over time
 - Easement program enrollment
 - USDA Census of Agriculture
 - Animal numbers
 - Pasture acres
 - Crop Acres

- Planning/Implementation recommendations

Reporting Metrics

Below is a list of potential tracking metrics that have been proposed to be included in a long-term High Rock Lake Agricultural Report. These metrics are ranked by priority (left column) based on an initial discussion between DWR and other partners, and each has been categorized based on their likely inclusion in the multi-year report.

Green metrics are recommended for inclusion, red metrics are recommended for exclusion, and gray categories have not yet been designated. (These assessments are preliminary and subject to revision based on TAG member feedback).

Priority	Data	Report? (Y/N)	Report Frequency	Responsible Parties
High	BMP Implementation: <ul style="list-style-type: none"> • Riparian Buffers • Cover Crops • Tillage Management • Precision Nutrient Management • Livestock Exclusion • Number of Waste Management Plans Written 	Y	2 years	DSWC, NRCS
High	Easement program enrollment	Y	5 years	DSWC, ADFP, NRCS
High	USDA Census of Agriculture Animal Numbers	Y	5 years	DSWC
High	Conservation Plan Implementation	N		
High	Nutrient Management Plan Implementation	?		NRCS? CES?

High	USDA National Agricultural Statistics Survey Animal Numbers	N		
High	USDA Census of Agriculture Pasture Acres	Y	5 years	DSWC
High	Soil Test Phosphorus	Y	2 years	DSWC
High	Manure Hauler Records	?		Private Entities, DEQ-AFO?
High	Residuals Application	?		DEQ
Medium	FSA Crop Acres	N		
Medium	USDA Census of Agriculture Crop Acres	Y	5 years	DSWC
Medium	USDA National Agricultural Statistics Survey Crop Acres	N		
Medium	Cost Share Expenditures	Y	2 years	DSWC
Medium	Closures/Buyouts	N		
Medium	Outside Funding Resources	?		
Medium	Timber Harvest Acres	?		
Low	Forest Management Plans	?		NCFS
Low	Fertilizer Application Rates	?		
Low	Voluntary Agricultural District (VAD) enrollment	?		
Low	Poultry House Constructions	?		

Factors that impact that decision include ease of compilation, frequency of publication, and number of responsible parties that will be required to keep an accurate count in the future.

Local Committees

Joey Hester shared the following information regarding local committees:

- “Local Advisory Committee” in Neuse, Tar-Pamlico, and Falls Lake
 - Members include DSWC, SWCD, CEC, NCDACS Regional Agronomist, 2 Farmers
 - Meets annually
 - Review crop acres, fertilization, BMP implementation
 - Usually held adjacent to SWCD Board meeting
- Drawbacks
 - All volunteer
 - Not part of existing committee/group (extra workload)

- Members lose interest over time
(As implementation wanes, data collection loses value)
- Benefits
 - Input directly from producers
 - Can assist SWCD in prioritization and strategy planning

Key points from the TAG members' discussion follow:

- Many TAG members voices hesitation about potential obligations to yet another committee
- There was a value proposition for a local committee that would be able to commit to education, marketing and outreach. That does not seem plausible
- Alexandra Dinwiddie noted that NCRS and local districts have local, regular meetings already, and could function in a single capacity
- Ms. Dinwiddie said she did not find the need for another separate local committee. Others agree that creating another "group" (committee) with the same key players would be unnecessary
- **There is consensus to recommend not using local committee to assist with NMS implementation**

Centralized Oversight Committee

Joey Hester shared this information about having an Oversight Committee:

- Nutrient Management Strategies of the Neuse, Tar-Pamlico, Falls Lake, and Jordan Lake use an Oversight Committee
 - Members include DSWC, DWR, NRCS, SWCD, CES, NCFB, Enviro, Academics
 - Meets annually
 - Reviews and approves reports
- Benefits
 - Stakeholder involvement in review/approval
 - Can assist in strategy planning
 - Can provide more dynamic year-to-year change observation and oversight recommendations
 - Serves as a point of contact and deliberation for input from outside parties
- All data compilation and report writing falls to DSWC with or without an oversight committee

Key points from the TAG members' discussion follow:

- Edgar Miller said he liked the idea of a centralized committee to assist with liaising and planning
- Alexandra Dinwiddie suggested having the oversight committee set the cadence for reporting
- **The group reached consensus and agreed to recommend having a centralized oversight committee**

Reporting, 2-year trends

Julie Henshaw highlighted that agriculture trends are weather-dependent, or market-/commodity price-dependent.

- She noted that this high-level information would be pertinent ambient data for this reporting
- Grace Messinger responded with an example of an “on-the-ground” type of trend.
 - If Farmer Jones puts in a stream crossing, and then his neighbors also install a stream crossing; within five years, we would see a positive trend of protection of the waterway
- Julie Henshaw noted that the granular information offered in Ms. Messinger's example require another level of data collection. She followed up with an inquiry of who would be responsible for this data collection.

Joey Hester noted that DWR's Nonpoint Source Coordinator for Agriculture would be responsible for this reporting. He shared the following context:

- The EPA provides funding (funneled through DWR) for one position to perform the reporting. This will be updated in the position's work plan. There will be a strong and urgent need to collect data, so a plan will need to be devised to ensure that necessary data will be captured moving forward.
- Mr. Hester said he understood the difficulty of long-term voluntary commitments, noting that interest wanes after the first five years of implementation. Still, he named the Cooperative Extension and NRCS as possible partnerships to explore further for assistance with data collection.

Grace Messinger shared further that NRCS has a major presence in this watershed. She also noted that RCDs receive state funding and have the ability to leverage dollars. She listed the following as resources in the HRL watershed:

- Pilot View - stream restoration
- Mountainview RCD - very active
- Impact RC&D of Rowan and Davidson Counties

Ms. Messinger posed the following questions:

- Can someone connect with them and share our needs?
- What other partnerships can bolster this data collection initiative?
- How can the Ag TAG obtain alternate funding to support this process?

Mr. Hester added:

- What are all of our voluntary options?
 - How do we hold up that level of commitment?
 - If there is a gap, where can it be bridged with effective rule(s)?
- Julie Henshaw continued to express concern over the burden of data collection, but noted that conducting studies or a report of High Rock Lake watershed would provide important data
 - Joey Hester agreed and made a strong push for a developing a meaningful strategy to support the sustainability of data collection (short- and long-term), referencing Keith Larick's sentiment regarding the difficulty of *sustained commitment in a voluntary process*.

Edgar Miller shared the following:

- The Wastewater sector will be bearing a brunt of the reductions for this nutrient management plan. Most are not equipped to handle phosphorus reductions, so they're looking at investing close to several hundreds of millions of dollars to address phosphorus loading. As an Ag TAG member, he said, this figure created an epiphany. And the question for him becomes *what can other TAGs do to help balance the level of effort?*

Mr. Miller shared also that he would like to see an updated report on High Rock Lake to get a sense of the current baseline. (There is data available for Chlorophyll-A).

Tracking Livestock

- Allison Brown asked how livestock tracking will be done.
 - Joey Hester stated that this tracking will come from Agriculture Census data, noting that this census data is the highest quality data DWR has access to.
- Regarding data collection in the livestock space, Mr. Hester offered the recommendation to have Julie Henshaw reach out to her colleagues and ask:
 - In your professional opinion, how many livestock operations have been excluded in your County? There is value in data even if they are not hard numbers. Soft data can still show progress towards implementation.

- Alexandra Dinwiddie shared that inclusion of any data, including soft data from the field, eases the burden on the Nonpoint Source Planning Coordinator. She noted that automating this collection by including it in workplans and strategies would be an effective way to streamline the collection process.

At this point, the conversation shifted to alternate sources of funding and the process for data collection.

Partnership Discussion for Data Collection Process

Joey Hester shared that drafting a MOU between DWR & soil and water leadership (NCRS) would provide a formal structure for cooperation in data collection, noting that he could author part of the agreement to include wording like, “The [oversight] committee shall include NRCS, Soil and Water Quality Extension.”

- The MOU would be a tangible demonstration of goodwill. It would show a commitment to compliance moving forward
- Grace Messinger offered up ideas around funding opportunities through formal partnerships, like RCPP (Regional Conservation Partnership Program) that elevates the need for dedicated funding and partnership
- Maggie Chotas reiterates that an MOU could be for an in-kind contribution, resource connection for than a financial connection. She asked if there is a precedent for this type of arrangement
- Mr. Hester remarked: “I do not know if there is a precedence in this state. DEQ and VA DEQ did one several years ago”

Alexandra Dinwiddie shared the following context around the structure of Soil and Water Programs:

- Districts (SWCDs) and the NCRS and the DSWC develop a memorandum of agreement that is adopted every five years which formalizes and outlines the relationship between the agencies
 - Typically, there is a standard template that the State Office rolls out to every district
- For those districts within the HRL watershed, it may be possible to include language that would permit sharing of data for the purposes of NMS
- It would be between Conservation agencies
 - It does not include [Cooperative] Extension, or some of the other groups that might have data we would want to include in our reporting

Agriculture Producers

- Allison Brown asked NRCS representatives which group of producers is seeing the most money in terms of cost share programs: cattle, crop, or poultry producers?
 - Lance Parker responded that he has seen four new poultry contracts amounting to about \$1million
 - Grace Messinger noted that cost share assistance does not include money from the landowner, so the true value amount is \$1.5 or \$2 million dollars
- Allison Brown asked about the waste utilization plan for poultry producers
 - Lance elaborated, added waste utilization plan is required if the farmer uses their litter (as in compost). “Many (in my region) are not, so they do not have a plan. In those cases, there is a measure of the quantity of poultry litter produced. The producer would contract out with someone to have the litter removed.”
 - Edgar Miller asks if that data is publicly available.
- Allison Brown shared an observation that the focus for nutrient reduction seems hyper focused on cattle producers
 - Keith Larick asked if there are cattle projects that are excluded because money is going to poultry producers (or vice versa)
 - Lance Parker noted that this does not seem to be the case and there are distinct pools of funding for the type of farm (pasture, confinement, crop) and further for each type of producer (cattle, dairy, poultry)
- Alexandra Dinwiddie explained the methods for how applications are ranked locally through the local District strategic planning process held every year, noting points are awarded based on project type and urgency, etc.
- Lance Parker added that for Soil & Water (Conservation), each District sets their own priorities
- Ms. Dinwiddie noted that there are several specific State goals, so the State and local governments would likely need to coordinate with one another in order to set the priorities for this part of the rulemaking

Livestock Stream Access

Joey Hester shared the following information regarding livestock operations. He noted that livestock stream access is an issue that the Steering Committee would like to see addressed.

Key Points

- DWR currently inspects livestock operations for WQ violations
 - Samples for turbidity, fecal coliform, sediment deposition, etc.
 - Issues ~4-5 warning letters per year (most often for turbidity/sediment)
 - Most producers voluntarily correct the problem (takes time)
 - Rotational grazing can be part of the solution
 - Enforcement is occasionally necessary
 - Very resource intensive
 - Usually for fecal violation

Key Considerations

- Livestock stream access is a key issue to address because it is visible
 - Citizens can drive by a farm and see livestock accessing streams and call in a complaint
- DWR has required exclusion systems in the past
- Stream stabilization is a major concern (not just fecal matter)

Keith Larick stated that DEQ gives farmers every chance of correction. Mr. Larick agreed with each of Joey Hester's bulleted points.

Allison Brown and others noted the significant investment required to fence off stream/water. She also brought up the following considerations from her personal experience:

- Needs access to streams during emergency situations
- Fencing is a significant investment
- Applicability standards
- Equitable funding and cost share programs across all producers

Allison Brown specifically noted that the poultry industry has significantly more funding than cattle or dairy. She and others would like to bring poultry producers representatives to the table to discuss exclusions and next steps.

- Julie Henshaw shared that watering ponds are exempt from livestock exclusion rules
- The DWR team noted that the stream exclusion would apply to Blue Line Streams which are perennial and intermittent streams that show up at solid or dotted blue lines on topographic maps
- Joey Hester noted that there is room to write flexibility into the rules because there is strong motivation to have farmers follow the rule and exclude livestock out of streams as soon as reasonably feasible.

Members of the TAG discussed a Wilkes County directive at length, with Grace Messinger noting that some of the historical precedent was tied to the land itself. Ms. Messinger made a point to emphasize a One Water Framework as a potential lens for discussion items moving forward.

Case Studies

Joey Hester presented the following case studies to share examples of other exclusion mandates.

Maryland

- Exclusion required for producers who earn > \$2,500 annually from farm sales or have 8 cows (or equivalent)
 - Minimum 10ft setback
- Fencing not explicitly required, only controlled access

Virginia Case Study

- Exclusion required operations with \geq 300 beef cattle or dairies
- No exclusion required for pastured animals
- Complaint-driven process for activities that impact nutrient, sediment, toxin delivery to stream
 - When complaint is filed and investigated, the producer may correct voluntarily or be fined

Key Questions

Joey Hester posed the following questions to the group to generate discussion and ideas on how to effectively exclude livestock from accessing streams:

- Can a new rule accelerate the process of exclusion or encourage reluctant producers to act?
 - How does that differ for operations that are secondary sources of income?
 - Exceptions or grace period for new operations?
 - Operation size threshold?
 - Number of livestock (headcount)
 - Total, across the enterprise?
 - Per site?
 - Above a certain income
 - Above a certain number of years in business
- If no rule is recommended, what is needed to meaningfully increase the pace of exclusion?
- Are achievement targets necessary?

- Certain percentage of operations excluded by XXXX date, increasing over time?
 - o Allison Brown shared openly that she would be reluctant to name a specific target Ms. Brown stated she did believe, however, that many producers would be amenable to exclusion efforts overall
- Can a separate BMP be implemented to lure them away from the stream?
 - Cost share tree plantings w/ protection through establishment
 - Cost share waterers
 - O&M lasts until canopy expands to provide shade
 - Grants 10-year grace period before fencing is required (i.e. if “luring” BMP is implemented, no DWR enforcement actions will be taken)
 - If producer can demonstrate exclusion, no fencing is necessary
- Can tax incentives or funding eligibility be tied to exclusion?
 - TAG members offered some ideas: tax breaks, rebates
 - o Would lobbying at the state level be required to see tax breaks?
 - Professional consultation would need to be provided to investigate this further.

Members of the TAG had fruitful discussion around the above questions:

- Keith Larick and Joey Hester exchanged threshold numbers for other NMS's.
 - Mr. Larick noted that there are different thresholds for confinement versus pasture livestock; ~ 100 : 20 in the Neuse Tar-Pamlico
- Cost Share programs were discussed, one member noting that NRCS hired their own shade expert
- Allison Brown noted that many other cattle producers were not present for this discussion
- Ms. Brown further noted that there were no poultry producers/representatives present
 - The group made a commitment to engaging with and inviting poultry producers to the next in-person Agriculture TAG meeting

Discussion was productive with many members in favor of supporting exclusion. There was no clear consensus that an exclusion mandate should be incorporated into rule, however.