Nutrient Scientific Advisory Board Meeting #45 Minutes

Friday, September 9th, 2016
TJCOG- 4307 Emperor Blvd, Suite 110, Durham, NC 27703
9:30 am -12:00 pm

Attendees
Members: Josh Johnson (AWC&K), Andy McDaniel (NCDOT), Brain Jacobson, Gradie McCallie, Sally Hoyt, Forrest Westall, Sandi Wilbur, Allison Weakley, Eric Kulz, Larry Band, Jon Duncan, David Phlegar, Michael Layne, Sarah Waickowski.

Non-Members: Andy Sachs (facilitator); Rich Gannon, John Huisman, Trish D'Arconte (DWR); Alix Matos (Cardno); Teresa Bobbitt (AWC&K); Keith Larick (NC Farm Bureau); John Cox (Citizen); Rhan Sutton (CONTECH); Haywood Phthisic (LNBA); Sushama Pradham (NCDHHS), Brian Burlhart (Chatham), Joey Hester (DSWC); Annette Lucas (NCDEMLR).

Agenda Topics
- Draft Livestock Exclusion Credit
- Stormwater Control Measures (SCM) Credit Document

Materials
- Meeting Plan
- Draft Livestock Exclusion Credit Practice Document
- Draft SCM Credit Document

General Updates
Eric Kulz was introduced to the group as the candidate to replace Matt Flynn from Cary on the NSAB. The Division will submit a request to the Secretary to approve Eric for the seat following the next meeting.

Draft Livestock Exclusion Credit
Forrest Westall (UNRBA) introduced the Livestock Exclusion Practice Document and explained that the UNRBA has been working with the Falls Lake Agriculture Watershed Oversight Committee (WOC) to address their concerns about the practice. The WOC provided comments on the draft document after the NSAB meeting materials mail out and Cardno and the UNRBA are still in the process of addressing them and will continue to work with the WOC on any unresolved issues.

Alix Matos (Cardno) presented an overview of the Livestock Exclusion Practice Document starting with an update on the process to develop the document which was released for review by the UNRBA Path Forward Committee and the WOC on August 16th and provide to the NSAB on September 2nd. The practice document establishes nutrient reduction credit for excluding livestock from streams by installing a physical barrier along the waterbody to prevent livestock from trampling stream banks resulting in cattle-induced erosion and the direct deposition of animal waste into stream. Crediting is based on pre-exclusion and post-exclusion stocking rates (animal units per acre). Crediting for the practice is only eligible on sites that have a post-treatment animal stocking rate of less than 1.2 animals per acre. Reductions in stocking rate are further incentivized by reducing factors of safety

resulting in increased credit. Main comments from the WOC were that credits would need to be updated with the recently finalized research resulting in slightly lower mass reductions. The WOC also recommended combining post-treatment stocking rate into two categories instead of three and apply safety factors to all post-treatment stocking rates. There were also several comments about the applicability of the practice in terms of limiting it to use in the Falls and Jordan watersheds and only on pastured cattle. Cardno will continue to work on addressing these concerns from the WOC along with any comments submitted by the NSAB by September 16th and plans to submit the final draft of the document to DWQ after their October Path Forward Meeting.

Questions & Comments

- A board member asked for clarification on what activities are specifically generating the credit awarded for the practice. Alix Matos explained that the document establishes a holistic approach to crediting. While reductions are likely achieved through runoff treatment by the excluded buffer and elimination of animal waste directly deposited into the stream, the local study the practice credit is based on ties the reduction to decreases in stocking density.

- Two board members asked whether or not this practice required buffer restoration in addition to fencing. The general concern being that in urban environments some sort of restoration is required to earn credit vs just leaving the site to revegetate on its own such as in this case. Also, if the streambank has experience severe trampling it may have been degraded to the point that they may need a planting plan to bring back vegetation. DWR noted that this was a good question and pointed to existing literature that shows that in general, in Agriculture settings where this practice is used, even in heavily trampled areas it has been found that the vegetation bounces back fairly quickly once the livestock are fenced out so planting plans aren't actually necessary. Others from DSWC and the Farm Bureau concurred.

- Comment was made by a board member that the biggest issues with this practice aren't technical in nature, they are policy and management issues such as working out who gets the credit, and the possibility of splitting credits. These issues will not be addressed in the document but will need to be addressed by DWR and other interested parties.

- Question was asked by a board member regarding what types of streams this practice could be used on. There is no specification in the document that the practice can be used on ephemeral channels. Forrest explained that the study this is something the will go back and look into.

- A board member shared that given this practice credit is essentially based on only one study it is fairly data limited. Suggested that if the group wants more data to back up the reduction estimates that perhaps this could be something the UNC collaboratory could be tasked with looking into further.

Stormwater Control Measures (SCM) Credit Document

Annette Lucas from NCDEMLR presented an overview of the Draft Stormwater Control Measure (SCM) Credit Document that is scheduled to be posted for public comment at the end of September. The SCM Credit Document was developed to increase the clarity and consistency of stormwater programs throughout the state and provide a central point obtaining stormwater values. In the past, credits for SCMs have been listed in each individual chapter of the Stormwater Design Manual. Going forward, DEQ will list all SCM credits together in this document to facilitate updates as new research becomes available and to facilitate comparisons between different SCMs for the regulated community. The document explains the difference between "primary" and "secondary" SCMS, provides an evaluation of every SCM for runoff rates and nutrient removal and provides the ability to update the SCM evaluation based on current research. The document is a joint effort between DEQ's Division of Energy, Mineral and Land Resource's Stormwater Program and the Division of Water Resources' Nonpoint Source Planning Program.

<u>Question & Comments</u>

- A board member inquired as to whether or not the design specifications for individual BMPs has changed and if so would existing BMPs get new credit? It was clarified that in some cases the BMP specs have changed but BMPs already in place would not get the new credit. Once a practice gets credit it lasts forever if it was designed the way it was supposed to be at the time.

- Several board members asked for clarification on the difference between "primary" and "secondary" SCM. Annette explained that primary SCMs can stand alone when designed per the MDC to treat the design storm depth. Examples are wetlands, infiltration systems, sand filters, bioretention cells, permeable pavement, green roofs and water harvesting. A secondary SCM does not achieve the annual reduction of TSS of a Primary SCM but can be used in a treatment train with a primary SCM to provide pre-treatment or hydraulic benefits. Examples are dry ponds, disconnecting impervious surfaces and level spreader filter strips.

- A board member asked for clarification about the current 85% TSS requirement and whether or not it is going away. Annette confirmed that yes, there would no longer be an 85% TSS requirement. It is not realistic or necessary. TSS removal depends on concentration going into the SCM. A follow up concern was raised by a board member that the document should make it more clear that use of a "primary SCM" equals meeting the previous TSS removal requirement.

- Board members requested clarification of the Size vs Runoff Treated Graph. Annette explained that it shows the relationship between SCM size and percent of annual runoff treated. It is not a linear relationship and regardless of the SCM size the ET&I and effluent are the same for a given SCM. You do not need to use these numbers on your own as Trish has programmed the sizing curve runoff treated values into the latest version of the Jordan Falls

Stormwater Accounting Tool. This will allow people to use the tool for calculating the nutrient reduction credit for under and oversized SCMs.

- A board member asked if the SCM document will be referenced in DWR rules in the changes made during the ongoing rules revision process. It will be important for people trying to comply with stormwater requirements in 2B rules to have a tie-in to this document. Another board member raised similar concerns for the need to tie the document to the stormwater requirements in 2H as well. Annette explained that this still needs to be sorted out. Currently the rules can't reference a Department document. NCDEMLR is currently working with APWA to adopt the document, which could then be referred to in rule.

- Next steps. NSAB to provide comments by September 23rd. The document will then go out to public comment on the 30th and be finalized by December 30th. A goal for 2017 is to develop a Combo Tool that incorporates the elements of both the Jordan Falls Accounting Tool and the Stormwater EZ tool.

Wrap Up

No additional discussion following the two presentations. Meeting adjourned.

Future Meeting Dates

- Unless specifically rescheduled, the first Friday of each month, 9:30 - 12:00 at TJCOG.