Nutrient Scientific Advisory Board Meeting #42 Minutes

Friday, April 1, 2016
TJCOG- 4307 Emperor Blvd, Suite 110, Durham, NC 27703
9:30 am -12:00 pm

Attendees
Members: John Cox, Sally Hoyt (Dr. Bill Hunt alternate), Josh Johnson, Michael Layne, Andy McDaniel, David Phlegar, Forrest Westall

Non-Members: Andy Sachs (facilitator), Steve Bristow & Shawn Springer (Wake Co.); Trish D'Arconte, Amin Davis, (DWR); Teresa Bobbitt (AWC&K), Justin Gray & Frank Park (Guilford Co.); Diana Hales (Chatham Co.), Alix Matos (Cardno), Dan McLawhorn (Raleigh), Brian Jacobson (AECOM), Haywood Phthisic (LNBA), Peter Raabe (American Rivers)

Agenda Topics
- Stormwater Control Measure Crediting Team
- UNRBA Measures Project
  - Infiltration Devices Crediting
  - Soil Improvement Crediting

Materials
- Meeting Plan
- Nutrient Accounting For Infiltration Devices
- Nutrient Accounting For Soil Improvement

General Updates
An NSAB member asked for clarification concerning items on DWR's *Nutrient Credit Development Status* document. DWR agreed to revise this document and provide the NSAB with a revised copy.

Stormwater Control Measure Crediting Team
Trish D'Arconte (DWR) provided an overview of DEQ's Stormwater Crediting Team (the Team) which is coordinated by DEMLR's Stormwater Permitting Unit (SPU) and is comprised of stormwater professionals with DWR, NC State University BAE, local governments and private consultants. Trish explained that the purpose of the Team is to develop and publish a new document that will support the state's stormwater programs and be reviewed and adopted by the American Public Works Association (APWA). The Team is tasked with developing and approving performance credits for each stormwater control measure (SCM), including nutrient SCMs, before they are incorporated into the APWA document. This document will provide NCDEQ a legal mechanism to update SCM performance standards without having to go through a formal Rulemaking process. This process is applicable to meeting New Development Stormwater (ND) requirements. NPS Planning staff are currently investigating potential applicability to Existing Development Stormwater (ED) requirements because ED follows a slightly different regulatory process. Significant group discussion followed about process, coordination, and implementation issues associated with the Team's development of the APWA document.

Process items of note are as follows:

- An NSAB member suggested that DWR create an APWA document process flowchart. DWR staff agreed to do this.
- Several NSAB members expressed concern regarding the lack of clarity associated with the process and coordination.
- An NSAB alternate suggested that Annette Lucas (SPU) should speak to the NSAB about the Team's development of the APWA document. DWR agreed to coordinate this.
- An NSAB alternate mentioned that the Minimum Design Criteria (MDC) for SCMs are codified in Rule, while SCM design guidance and credits will be established by NCDEQ. Also mentioned that Center for Watershed Protection encouraged local governments (LGs) to put performance standards in Rule.

- The following clarifications were made regarding APWA Document Approvals:
    - DWR staff stated the NCDWR Director will approve credit methods prior to their incorporation into the document. This statement addressed confusion regarding a statement in the March NSAB meeting minutes that "the [*APWA*] document that will house DWR's nutrient-reducing SCMs will not require DEQ Director approval."
    - DWR staff stated there will be multiple levels of approvals from the initial development and authoring of the document by NCSU BAE to the publishing of the document by the APWA.

Coordination items of note are as follows:

- An NSAB member asked for clarification regarding the roles and responsibilities between the NSAB, DWR and DEMLR/SPU.
- A member of the Team stated that members of the Team who are also NSAB members can be bridge to keep the entire NSAB informed throughout this process. Also mentioned that the recent regulatory reform [*legislation*] has contributed to current coordination and process challenges.
- An NSAB member mentioned the importance of having all of the technical stakeholders at the table as this process moves forward.

Implementation items of note are as follows:

- An NSAB member stated the importance of NSAB input regarding vetting and implementation of the APWA document.
- A local government stormwater staff person encouraged the Team to consider the limited resources of LGs.
- Several NSAB members inquired about who ultimately approves the APWA document. An NSAB member stated the importance of "who" will sign the APWA document. DWR staff is not sure about the ultimate approval but will investigate further.

UNRBA Measures Project

Alix Matos (Cardno) provided a brief update of the UNRBA Nutrient Credit Development Project (see attached handout). This overview consisted of a list of practices for which nutrient credits are being developed and an outline of the overall the credit development process. She mentioned that credit development for the land protection and livestock exclusion practices are currently delayed. Additionally Minimum Design Criteria (MDC) for all stormwater control measures are currently in a public comment period. The remainder of this presentation was devoted to describing crediting for the Infiltration Devices with Varying Design Storms and Soil Improvement practices. Below are comments provided for each of these practices by NSAB members and DWR staff:

<u>Infiltration Devices with Varying Design Storms</u>

- Cardno clarified that the 'design storm' refers to the depth of rainfall and treatment method; the maximum design storm for this practice is 1.5 inches.
- Stormwater infiltrated into the ground is considered 'lost' to the natural system from an SPU regulatory perspective. There was agreement that this is probably not true in a real world setting.
- A question was raised about why hydrologic soil groups (HSG) were not featured in the runoff reduction table. DWR suggested adding an explicit statement that HSG is already accounted for by the design engineer when incorporating the minimum design criteria for the site.
- Cardno agreed to revise the Design Storm table in the crediting document to reflect greater design storm intervals.
- Revise Y-axis label on Figure 5 graph.

<u>Soil Improvement</u>

- Although intended for existing developed areas, would be beneficial if LGs encouraged developers to incorporate this practice to assist with meeting their stormwater requirement for new developed areas. Cardno mentioned that SPU may consider making this practice applicable for new development.
- Redevelopment falls under New Development Stormwater requirements.
- The goal of this practice is to promote healthy soil structure. LGs should be careful to not allow practices that create incentives for developers to do 'improvements' which could have adverse impacts on the landscape.
- NCDOT supportive of this practice and is currently doing their own research regarding this practice.
- Discussion about recreational field fields. Technologies available to improve the hydrologic properties. Synthetic ballfields have similar hydrologic properties of permeable pavement.

- Suggested Crediting Document Revisions:
    - Change the term 'Minimum Design Criteria' to 'design criteria' because MDC for this practice was determined by subject matter experts but not per the regulatory definition of MDC. [*Editor's Note: MDC in DEMLR Stormwater BMP Manual established per 15A NCAC 2H .1000*]

- Add/clarify the following MDC language: soil test P results shall be less than 30, specifications for determining organic matter content, tillage depths, definition of compaction and how to avoid it.
- Include porosity as a soil testing parameter as a way to offset consultant's fees. [*Editor's Note: this would allow LG staff to evaluate this parameter*.]
- Multiple questions regarding trees in this crediting scheme, including tree protection, whether you can plant trees after previously having lawn, and whether you can get credit for the area under trees.
- Clarify that shrubs and trees can be planted and is encouraged after soil improvement treatment.
- Add 'Geotechnical Engineer' as a professional recognized to have experience in measuring bulk density.
- Add instructions for calculating credits for a conversion from impervious surface to amended lawn/landscaped area.
- Revise Y-axis label on Figure 6

Wrap Up

After general comments were provided by the NSAB and DWR staff, other interested parties in attendance were given the opportunity to provide comments.

Future Meeting Dates

- Possible meeting in May. DWR will email an update soon.
- Unless specifically rescheduled, the first Friday of each month, 9:30 - 12:00 at TJCOG.