NC Nutrient Scientific Advisory Board Meeting Summary
April 5, 2019 @ TJCOG
9:30 am – 12:00 pm

Attendees

Members / Advisors
Sally Hoyt - UNC
Bill Hunt - NCSU
Josh Johnson - AWCK - via phone
Eric Kulz - Cary
Morgan DeWit - Chatham County
J.V. Loperfido - Durham
Andy McDaniel - NCDOT
Deanna Osmond - NCSU
David Phlegar - Greensboro
Haywood Phthisic - LNBA
Peter Raabe - American Rivers
Allison Schwarz Weakley – Chapel Hill
Forrest Westall - UNRBA
Sandra Wilbur - Durham

Facilitator
Jenny Halsey - TJCOG

Guests
Anne Coan - NC Farm Bureau Federation
Maya Cough-Schulze - TJCOG
Jacob Dorman - Contech ES
Gerald L Featherstone - Haw River
   Assembly/CFRA
Sue Ellen Johnson - independent
Alix Matos - Brown and Caldwell
Sushama Pradhan - NC DHHS
Rahn Sutton - Contech ES
Sarah Waickowski - NCSU

DWR Staff www.deq.nc.gov/nps
Patrick Beggs
Trish D'Arconte
Rich Gannon
John Huisman

Agenda Topics

1. SCM Nutrient Data Standards Workgroup Proposal
2. NSAB decision making
3. Remedying Discharging Sand Filters Practice
4. Baseline survey for Street and Storm Drain Cleaning Practice

Meeting Materials are available online: www.deq.nc.gov/nps

Meeting Summary

Jenny Halsey (TJCOG) opened the meeting with introductions and a review of the agenda.

The November 2, 2018 meeting summary was approved.

1. Proposal for an SCM Nutrient Data Standards Workgroup

Trish D'Arconte (DWR) presented a proposal for a workgroup to develop SCM nutrient data standards.
DWR is looking for volunteers to serve on the workgroup.

Trish's presentation can be found online and is summarized below:

Current Approach to SCM Performance Assignment

- Data on TSS performance submitted to DEMLR
- Hydrologic SCM performance and Minimum Design Criteria determined by DEMLR
- Nutrient data standards set by NCSU BPJ and DEMLR's **New Stormwater Tech (NEST)** program
- Assigning nutrient EMCs relies upon Best Professional Judgement from NCSU
- Review of nutrient EMCs by NSAB

Problems with Current Approach
- NEST Program is missing nutrient-specific details
- Need to document BPJs in detail or rely on less BPJ
- Need to document what available data are excluded and why
- Variations in how EMCs are assigned and approved
- How to handle challenges to EMC assignment

Examples of Challenges Assigning EMCs

- Difficulty assigning EMCs for StormFilter – non-regional data otherwise sufficient for DEMLR
- Difficulty assigning EMCs for Filterra – extreme high and low influent concentrations
- Sand Filters ☐ using influent EMCs as effluent
- Request to treat Dry Detention similar to Sand Filters
- EMC for Floating Wetland Islands uses different approach to other SCMs

Proposal – Nutrient Data Standards Workgroup

- Evaluate NEST Program to flesh out nutrient data standards
- How frequently to reevaluate EMCs with new data?
- Standardized data evaluation and EMC assignment
- Allowances for differing EMC assignment methods
- EMC assignment appeals process
- Document approaches for all current SCMs in detail

Current Nutrient SCMs:

- Bioretention w/ or w/o IWS
- Permeable Pavement
- Wet pond
- Stormwater wetland
- Sand Filter
- Rainwater Harvesting
- Green Roof
- Level Spreader – Filter Strip
- Grassed Swale
- Dry Pond

- Bioretention variants
- Permeable Pavement variants
- Pollutant Removal Swale variants
- Sand Filter variants
- Infiltration Systems
- Disconnected Impervious Surface
- Floating Wetlands for Wet Ponds
- LS-FS with Virophos ®
- Silva Cell ® w/ or w/o IWS
- Custom SCMs

Workgroup schedule and approach

- Start June / July 2019
- Monthly meetings
- NCSU provides analysis of available SCM data
- Get into nitty gritty details

DEMLR's Performance Standard for Primary SCMs
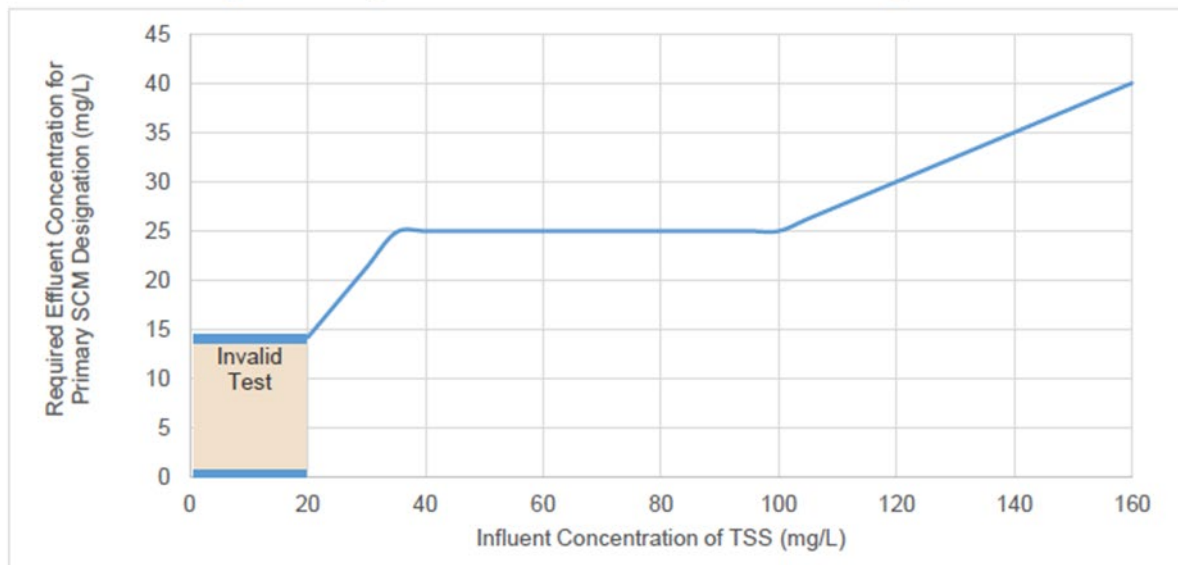
Graph from Part F of the DEMLR Stormwater Design Manual

Discussion following presentation:

Sandi: Custom BMP – what guidance referencing?

Trish: Falls/Jordan program: Need to follow up on that.

- We are seeking a DEMLR staff member for the workgroup.
- Comment: Cumulative impacts are a part of every project. Do models take this into account? Response: This isn't about what needs improvement regulatorily but how SCMs perform now. There is a lot of data on how well they perform, but not for some of the newer ones.
- It's good this workgroup will have a specific focus.
- Keep the workgroup fast and nimble, an extension of NEST even.
- Questions for the workgroup:
  - How can we incentivize innovation in this area and manage risk?

> o   Do we need multiple groups to figure all this out? e.g. - nutrient, sediment, volume. Ideally should be one state assessment for all aspects of SCM performance. Can the group consider a recommendation for future advisory group?

Action: Sandi Wilbur, Sally Hoyt, Peter Raabe, and Josh Johnson volunteered to serve on the workgroup. Others not on NSAB are welcome. Please contact trish.darconte@ncdenr.gov

2. NSAB decision making

Patrick Beggs (DWR) brought an item back for resolution that was discussed in October 2018 regarding how consensus will be determined as detailed in the decision-making section of the NSAB Charter. In October 2018, NSAB asked staff to draft suggested changes to clarify the section.

Current Proposal: Concerning the five finger polling method, a vote of #3 will now be considered supportive.

Action: The NSAB agreed by consensus to make the proposed change. Below is the new Section C of the Charter with changes in **bold**:

> From Charter, Section C: Decision Making
>
> In order for the NSAB to make a decision, seven (7) NSAB members with voting privileges (Primary Members and Primary Alternates), at least five (5) of them primary members, must be present.
>
> Consensus will be used to make decisions. A 5-finger polling method (1) can be used to identify points of discussion or agreement, and (2) will be used to determine consensus.
>
> A goal of consensus decision making and the 5-finger polling method is to identify points of agreement, disagreement, and topics of discussion, and also to help participants understand why they may disagree.
>
> A member, advisor, staff, or the facilitator can make a proposal and will **identify if it is a final decision-making poll.** Otherwise it will be considered a poll to help move discussion forward.
>
> Poll choices, using # of fingers:
>
> 1.   I fully endorse the proposal.
>
> 2.   I agree with the proposal.
>
> 3.   **I can live with the proposal. We can move on.**
>
> 4.   I don't like the proposal but will not work against it.
>
> 5.   Stop. I find the proposal unacceptable and will actively work against it.
>
> If a poll is not identified as a final decision seeking vote then it is simply a method to gauge agreement and identify issues. When this is the case, those voting 3, 4, or 5 will be given the opportunity to share their disagreement with the proposal and discussion continues. There is no need to keep a record of this poll as it is just a way to efficiently delineate conversation.
>
> **If a poll identified as seeking a final decision** results in votes 1, 2, **or 3,** it shows a desired threshold of support, and the NSAB adopts the decision by consensus.
>
> If a **poll identified as seeking a final decision** results in any votes of **4 or 5**, it shows that a desired threshold of support for the proposal does NOT exist. The group will seek to clarify the concerns of those voting 4, or 5, and attempt to generate alternate proposals to address those objections.

Alternate proposals will be tested using the same 5-finger poll method.

If multiple alternate proposals identified as seeking a final decision do not result in consensus, a referral proposal will be made to defer the matter to the next meeting with those voting 4 or 5 on the decision-seeking proposal agreeing to meet with the proposer(s) to redraft a proposal. This deferral proposal must result in votes of 1 or 2 only.

In the absence of consensus to refer the matter to the next meeting, the original proposal is immediately submitted to a yes/no vote and may be approved by an affirmative vote consisting of the full group in attendance minus one.

Meeting reports on decision-making as well as explanations used to convey the proposal to necessary leadership, will reflect minority and majority viewpoints. Board members will work with DWR to provide accurate language.

3. Remedying Discharging Sand Filters Nutrient Reduction Practice

Patrick Beggs (DWR) brought the finalized practice Remedying Discharging Sand Filters back to the NSAB for endorsement. The practice was previously developed with subject matter experts and the NSAB, vetted in its current form through the NSAB in October 2018, made available for public comment from December 4, 2018 to January 8, 2019 and amended by staff.

Action: The NSAB endorsed the practice by unanimous consent.

Comments: The practice is good. With respect to the related question of whether DWR intends to assign (Falls) local governments the pre-remedy loading from DSFs, in principle it is unfair to make them responsible for loading that is permitted by the state as a point source.

4. Baseline Survey for Street and Storm Drain Cleaning (SSDC) Practice

Patrick Beggs (DWR) provided a draft survey instrument for this practice for NSAB comment prior to release to local programs.

Background: The SSDC practice came to the NSAB in June 2018 as one combined practice. Changes were made based on NSAB input and the practice was put to public comment from July 7 to August 2, 2018. Further changes were made, and it returned to the NSAB for endorsement in Oct 2018. At that point, the NSAB was comfortable with the practice from a technical standpoint but concerned about the policy of requiring improvement from the baseline period and specifically, how baseline would be determined. The NSAB decided a survey of local governments and state/federal entities could help determine if this was possible to quantify. The goal of the survey would be to determine whether sufficient information remains available to local governments to estimate the magnitude of baseline material collection.

At this meeting, Patrick reviewed the draft survey instrument, and received the following comments.

Survey Comments

- What about miles swept instead of weight collected? Is there a way to determine weight from that info? [staff: Yes]
- Type of truck matters—ask this; diff tech has diff removal rates.
- Add optional comment areas so people can explain their answers / provide more info
- Clarify what type of data you want to collect.

- o   Let people report quality of data somehow.
- Maybe add a third column about "whether this data could be collected" because some of us could easily get this data moving forward.
- I'm intrigued by a survey being associated with a practice. In future, maybe the survey ought to come first when investigating new practices, see if there's data and interest, then proceed with developing a credit. [staff: We kind of do that already, just not as a survey. We discuss with the NSAB what is worth spending time on, and sometimes things are so obviously not useful they don't even make it on the NSAB agenda. Early on, the NSAB identified all possible practices and prioritized which ones to pursue].
  - o   Does NSAB reevaluate that list over time? [staff: No, we have not, but we can.]
- The practice seems to assign credit by actual material weight, instead of doing an assumed credit based on miles. [staff: Correct, this is the direction the NSAB steered the credit.]
- Add survey question about whether people have changed their practices in the last X years.
- Clarify terminology, e.g - curb miles; street miles; land miles
- I like where this survey and conversation is going. While we won't have records from 1997, there is a lot of institutional history. Ask when sweepers were purchased, crews formed, etc.
- Add a question: Do you sweep the same route all the time, or do you alternate?

Bigger Picture and Baseline

- I'm still against having a baseline determination for this practice. We need to incentivize street sweeping and storm drain cleaning. What about communities that were already doing great work in this area? We don't want to penalize them with a baseline determination. Incentivize small municipalities to do these practices.
- I am in favor of understanding the pounds of N and P difference between baseline and now, but I think that should be different from credit.
- I agree, we need to incentivize any practice that reduces nutrients.
- If you are doing the same thing as baseline, then you are not making progress, in fact, if you stop doing those things, it gets worse.
- Would cities be penalized if we stopped sweeping streets, if staffing issues etc? It's very expensive. [staff: Yes, you would not get the credit that year. It's an annual credit.]
- I agree with everyone's comments, but the rules say we have to figure out how much loading was there, and how to reduce it. Under this regulatory and legal framework, we have to do this. We're stuck in this box. I'd like to see this change. If you don't like having that baseline, we need to change the rules.
- Based on observing and regulating local govts, people won't know what they did 20 years ago. You might get info about baseline, but it won't be good info.
- Survey will try to ferret out whether the data is good or bad.
- What's the risk of issuing a credit irrespective of a baseline?
- At some point we need to get to the point where incentivizing positive actions is at the forefront, rather than regulatory consistency being at the forefront.
- When you go to council and say we need to buy 5 more street sweepers, you have to go thru all the reasons why you need them. What's the incentive if there's no credit? Management can just choose to put money into other efforts.
- Towns are investing in better technology because they are anticipating a credit.

- There may be a difference between the value to Phase 1 and Phase 2 communities. If we allow Phase 2's to document that there was a program thru less quantifiable methods, we might get more info.
- When we revisit the rules, maybe we don't need to include a baseline.
- We are looking for a new paradigm. The level of accuracy is different for this credit.
- Chesapeake Bay doesn't have a baseline.
- [staff: the rules are designed using performance standards to provide flexibility vs. a prescriptive command & control approach. Performance standards require a reference condition, they measure improvement relative to a baseline. Credit for continuing what you did in baseline degrades the integrity of the accounting.]
- We are presupposing the answer to this survey - assuming there will be data. Let's put the survey out there and see what data is out there, THEN we have this bigger picture conversation. If few were street sweeping 20 years ago, baseline is moot.
- Idea for future conversation: Are 60% of your streets being swept? If so, full credit; if 0%, no credit.

Survey logistics

- Send it to the supervising engineer
- Send it to NPDES program managers who can put it on listservs.
- Use NPDES permit holder mailing list
- Don't send it to public works directors
- Send it to Streets and Fleets chapter
- Differentiate between Falls and Jordan
- Send it to SWANC
- Tell them how long it will take them to complete and people will more likely do it.
- Charlotte has done surveying something like this for a while and has trouble getting responses.
- Make it available online, using SurveyMonkey or something like that.
- Make it to that you can see all the questions at once so they know it is short.

5. Updates and Comments

- Patrick Beggs - DWR. The collaboratory recently held their annual research symposium sharing the work that has been done in the Jordan Lake watershed. Presentations can be found at: https://ie.unc.edu/nutrient-study/symposium/ Some highlights include: more flow from Haw River makes it far up the New Hope arm of the lake, there is enough phosphorous present in sediment that nitrogen is the current limiting nutrient. Nitrogen fixers are only a small part of dynamics in the lake.
- John Huisman - DWR. Rules readoption for Tar-Pamlico Nutrient Offset rule revision will affect all strategies. Public comment period ends April 16th. Two public hearings were held. Results will go to the EMC in July, and the RRC in August. The rules will be in effect in Fall 2019.
- 85% of flow in Jordan Lake comes from Haw! Wow.
- Lots of smart people have worked on this group for a long time. Are we using our brainpower as best we can here? Right now we advise DWR on what they need. Are there other things this board should focus on?

- It would be helpful if we met more consistently. When there is a long gap in between meetings, I forget what we did. Continuity with topics would also help with remembering.
- The Offset rule affects all nutrients - I recommend folks look at that.
- I'm glad modelers are using the Tetra Tech model data.
- Better is the enemy of good.
- I agree we need to meet more regularly.
- JLOW, Jordan Lake One Water is looking to develop watershed-wide management plan. https://www.tjcog.org/jordan-lake-one-water.aspx
- Some people aren't getting JLOW announcements. The listserv used is Constant Contact, maybe it is going to spam. Patrick will work with Jen Schmitz about this.

The NSAB will meet June 7, 2019, 9:30 am at TJCOG.