Date: February 20, 2013

To: Urban Nutrient Management Expert Panel
Urban Stormwater Work Group
Watershed Technical Workgroup

From: Tom Schueler, Chesapeake Stormwater Network

Re: Summary of Comments Received on UNM Expert Panel Report
And Proposed Options for Resolving Them

Background:

The Expert Panel presented its recommendations on December 18, 2012 joint meeting of the Urban Stormwater Work Group, Agricultural Workgroup, Watershed Technical Work Group and the Stream Group of the Habitat Goal Implementation Team. A followup meeting with the Ag Work Group was held on January 10, 2013.

The decision was made to provide a 45 day general comment period, which expired on January 31, 2013, before commencing the CBP BMP review process to seek official endorsement by CBP. The Urban Stormwater Workgroup approved the expert panel report on February 19, and added the comments as shown in green type in this memo. The comments refer to Version 2.0 of the expert report, dated 2/03/2013.

We received comments from the following groups: Maryland Department of Agriculture, Chesapeake Bay Commission, Agricultural Workgroup, Professional Landscape Network and Agrium Advanced Technologies. In addition, Dr. Gary Felton (panelist) provided some supplemental comments, as well. The entire file of comments received has been posted to the USWG website.

While most of the feedback at the initial meeting and subsequent comments was quite laudatory, there were a few areas of concern:

1. Reluctance about the alternative outreach option credit
2. MD: not getting credit for mandatory N reductions by commercial applicators under the new MD fertilizer law
3. Verification issues associated with urban nutrient management plans
4. Need a definition of Conservation Landscaping
5. Edits to core UNM lawn care practices
6. Concern about efforts to improve state non-farm fertilizer statistics

1. Alternative Outreach Option (Ag Workgroup, Keeling)

Summary of comments: This credit option was recommended by a majority of the panel, but was not unanimous. Concern was expressed by several at the rollout meeting, as well in subsequent written and verbal comments, that this incentive option should be dropped for numerous technical and policy reasons (e.g., BMPs should physically exist

before crediting, sociological research shows ambiguous effect of outreach on behavior change, may not be much of an incentive for local governments, etc.)

Proposed Resolution: Have USWG choose one of the following three options:

> Option 1: Drop the Alternative Outreach Option Entirely. The sections of the report shaded in yellow will be deleted
>
> Option 2: Drop the Alternative Outreach Credit, But Retain Some of the Discussion on Innovative Outreach Methods in Section 7 (Future Research and Management Needs).
>
> Option 3: Retain the existing language.
>
> Urban Workgroup: All of the USWG members present supported Option 3, and suggested the final draft have more specific language on assessment and verification

2. Not getting full credit for mandatory N reductions by commercial applicators and retailers under the new MD fertilizer law (CBC/MDA/Felton)

Summary of comments: Certain elements of the MD fertilizer law regulate the dose at which homeowners and commercial applicators can apply N, which are verifiable and enforceable. MDA (2013) has released these regulation, which are attached. MDA has requested that certain areas of the state be granted a N credit for UNM due to these provisions (which are unique in the Bay watershed)

Proposed Resolution: CSN has drafted a definition for this MD specific credit and how it might be credited, which can be found in blue font on page 11 of the revised report.

Nitrogen Fertilization Legislation (Maryland Only). This refers to state legislation or regulations that:

> (a) limits the N content and establishes minimum slow release content for DIY fertilizer products sold in retail outlets
> (b) sets an upper limit on the maximum amount of N fertilizer that commercial applicators can apply in any one application (0.9 lbs/acre/year)
> (c) prohibits application on paved surfaces, water features, or during the dormant season, and,
> (d) has verifiable procedures for commercial applicator training, certification, and application record-keeping, including fines for non-compliance.

Maryland's lawn fertilizer legislation is currently the only Bay state that meets criteria (a) - (d), as outlined in MDA (2013). As a result, commercial applicators in Maryland are now required to use at least 7 out of the 10 core UNM practices. Consequently, Maryland is eligible to take the "blended" UNM nitrogen credit (i.e., 9%) for the total acreage of

lawns managed by commercial applicators that it can verify as conforming with the new regulations.

Maryland may also receive low risk UNM nitrogen credit (4.5%) for the acreage of home lawns managed by do-it-yourselfer, as influenced by its new retail sales and labeling requirements (i.e., items(a) and (c) in the preceding list). The smaller credit is warranted by the fact that only 4 of the 10 core UNM practices are implemented under this approach (i.e., several practices are still subject to homeowner discretion).

To prevent double counting, Maryland cannot also take credit for the state-wide nitrogen reduction credit described in Section 5.2, although for verification purposes, it will need to cross check its UNM reductions with measured declines in the N content of non-farm fertilizer sales (see Section 6.1). In addition, because the state of Maryland is already taking the credit for fertilized lawns, localities can only take credit for UNM practices if they are applied to non-fertilized lawns.

Urban Workgroup. Supported the credit for Nitrogen Fertilizer Regulations that meet the panel's criteria. Requested that MDA provide more details on the verification of the do-it-yourself credit. Suggested language on the local/state double counting issue. Recommended that the credit be available to any state that enacts and implements N fertilizer regulations that meet the panel's criteria. Recommended that states should seek authorization for the credit in the future from either the WTWG or WQGIT.

3. Verification issues associated with sampling on-site urban nutrient management plans (Ag Work Group)

Summary of comments: Need a numerical threshold for sampling/inspection of UNM plans that is at least comparable to that used for agricultural nutrient management practices.

Proposed Resolution: Add the following language to work to address the issue.

The Panel could not agree on what elements of a UNM plan could actually be inspected during an on-site visit, nor a numeric threshold for the intensity of sub-sampling to provide acceptable verification data. The Panel noted that the statistical rigor of any UNM sub-sampling effort should be consistent with the verification protocols being developed for agricultural nutrient management practices, as outlined by the AWG (2012), while at the same time recognizing that limited capacity currently exists in the urban sector to assess what could amount to hundreds of thousands of properties. The Panel felt that creating better UNM sub-sampling procedures should be a major research and implementation priority in the next few years.

Urban Workgroup: supported the planned approach to develop a better verification approach after the report is approved.

4. Need a definition of Conservation Landscaping (Felton/CBC)

Proposed Resolution: See text below

Conservation Landscaping: Creation of mulched beds that contain plantings of perennial herbaceous plants, shrubs and small trees that retain rainfall and adsorb runoff from adjacent turf or impervious cover. Native plants are preferred, but ornamental plants are acceptable if they are adapted to regional climates and are not invasive spreaders.

Expert Panel: A majority of panel recommended removing conservation landscaping from the report since it did not specifically review any literature of the effect of conservation landscaping on runoff or pollutant reduction. The panel did not want to imply that conservation landscaping was not effective, but felt another panel should look into the issue.

Urban Work Group. Supported the new panel recommendation, and recommended that the effect of conservation landscaping be added to the charge of the recently launched panel on upgraded buffers and filter strips.

5. Edits to Core UNM Practices (Felton, Agrium, Professional Landscape Network, CBC, and MDA)

Summary of Comments: Various edits were proposed to lawn care practice 1, 2, 3, 4, 8 and 9, with the most focus on "Choose not to fertilize option" in practice 3, and the length of the buffer zone specified in practice 9.

Proposed Resolution. Most of the suggested edits were incorporated into the text (and are shown in blue font). The Choose not to fertilize option was retained, but a photo of a lawn with poor cover (needing turf management/fertilization is now provided in the text along with a caption to make sure homeowners understand that a poorly maintained lawn can be a source of sediment and nutrients, even if it is not fertilized

Urban Work Group. Supported the proposed changes.

6. Concern about efforts to improve state non-farm fertilizer statistics (Felton, MDA, Ag workgroup)

Summary of comments: Several reviewers noted that the quality of current state non-farm fertilizer statistics were inadequate to verify declines in the actual N and P applied to lawns, and that state agencies may lack the staff, authority or methods to improve them. They also noted that the Panel should provide more specific instructions on what would be considered acceptable statistics.

Proposed Resolution: The Panel feels that the three year transition is an adequate time frame to shift to enhanced reporting of state non-farm fertilizer sales statistics, and that

such data is critical to verify the substantial Bay-wide reductions provided (roughly estimated at about 250,000 lbs of TP and 1,000,000 lbs of TN.

Some language was added to respond to these issues in Section 6.1 (p. 47), and that USWG/AWG should work together on this issue in the next year.

Urban Workgroup: Supported the panel recommendation.

Additional comments on Urban Nutrient Management report submitted by Bill Keeling (VA DCR), 1/28/2013

In the panel's recommendations, a jurisdiction that passes fertilizer P legislation gets a net benefit of only 5% more than a state that does nothing. This does not create much incentive for the states that have not passed legislation to do so.

The panel's proposal to eliminate the 25% reduction credit given for fertilizer P legislation in 2016 should be stricken. If a jurisdiction can demonstrate greater reductions based on fertilizer sales data, they should be granted the higher efficiency, but a jurisdiction should not lose the 25% reduction if they do not have the fertilizer sales data. If there is an indication, based on fertilizer sales data, that the 25% reduction is too high, the expert panel should be reconvened to adjust the reduction credit. The methodology proposed for calculating statewide P reduction credit based on fertilizer sales data assumes a clear distinction can be made between fertilizer sold for farm and non-farm use. The best that could likely be done is to make some assumptions based on bulk vs. bagged product and bagged product labeling.

The panel recommended efficiencies for UNM should use a single value rather than distinguishing between High and Low risk. The effect of using High and Low risk values is to create two UNM BMPs...UNM-High and UNM-Low with different efficiencies. What is desired is to show a greater reduction generated by placing UNM on the high risk land. But the UNM-High and UNM-Low is applied to the same model land use, receiving the same nutrient applications and having the same pre BMP loading rates. The result would show that high risk land with UNM would load at a lower rate than low risk land with UNM, not likely in reality. This high/low distinction may make sense in real world, but does not translate into 5.3.2. model world.

The panel uses the language "may also be considered acceptable in some states" in its discussion of homeowner pledges to implement UNM. This language should be stricken. Either a homeowner pledge is acceptable as credit for UNM or it is not and in VA's case it is not sufficient to be called a nutrient management plan.

The complete lack of scientific evidence that outreach produces any reductions of delivered loadings and the very little scientific evidence to support outreach doing much of anything undermines and subverts the entire BMP review protocol if allowed to stand as written. Considering the hard science that other BMPs have needed to demonstrate to become available in the modeling EPA should now allow this credit. If it is retained as written EPA can forget arguments from that point forward about using the best science available. Frankly speaking this will make the CBPO BMP review protocol a joke if accepted. As is the credit for alternative outreach efforts needs some additional clarity if it is retained. The document reads, the three year credit is given for an alternative outreach effort as long as the outreach program includes a plan to conduct surveys to evaluate the programs effect. If the survey results indicate the program is effective, the credit can be extended in three year increments as long as the program continues and the program surveys demonstrate it is successful. What is not clear is if the UNM implementation that results from the outreach program is concurrently creditable. It would also seem that in order to get the credit the first time the locality would have to justify the credit by demonstrating the outreach is working before receiving the credit not at the end of the first three year credit cycle. Also what exactly does a jurisdiction have to report to the state to get credit?