Felton's Selected Comments

Quotes from report are either set of by indented margins or written in blue text.

Summary of Panel Recommendations

Bay states target this land for urban nutrient management. The insertion of "plans" is not justified.

I still don't believe that verifiable plans will ever come from homeowners unless they have commercial lawn care companies doing the work.

Section 2

Definitions and Qualifying Conditions

There is a definition of Phosphorus Fertilizer Legislation. There should be a similar definition for Nitrogen Fertilizer Legislation.

> *UNM Planning Agency:* This refers to the specific agency in a community that has authority and/or qualifications to assess a property and prepare a verifiable UNM plan. Depending on the state, the UNM planning agency may be the State Cooperative Extension Service, Soil and Water Conservation District, State Agency, or a Local Agency

The above implies that *the UNM planning agency* exists. I don't think it exists in Maryland and probably won't.

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> *Statewide Nitrogen Reduction Credit for Pervious Land:* This load reduction credit is determined for each state to reflect the expected decline in N fertilizer sales over time. The credit will be initially based on each state's 2014 N fertilizer inputs, relative to the current CBWM assumption of 43 lbs/ac/year for pervious land, and will only be granted if states can document a downward trend in the N content of non-farm fertilizer sales data. The magnitude of the credit will be determined by changing N fertilization inputs in the CBWM. This credit will also be subject to biennial verification.

If the N-reduction is going to be figured out by subtracting the current verifiable application from the CBWM assumption of 43 lbs/ac/yr, which is equal to 1 lb/1000 sq ft/yr, shouldn't Maryland get a credit for requiring the bags of DIY fertilizer to contain no more than 0.9 lbs/1000 sq ft/yr, independent of any UNM plan?

Table 2 (p10).

Item 3 I still disagree with "no fertility" being a nutrient management practice. It is something that facilitates and exacerbates phosphorus pollution and sediment loss.

Item 9   Do not apply fertilizer within 20 feet of a water feature and
                manage this zone as a perennial planting, a tall grass buffer
                or a forested buffer.

As long as the adjective "tall" is in there, Maryland law does not do this, but the fertilizer setback of 10' (not 20') does establish a buffer. Item 9 excludes any impact from the Maryland fertilizer legislation buffer section.

Under "Alternative Outreach Option" (p11), the first bullet credits social media marketing. I object to crediting Facebook "likes" for nutrient reduction.

Bottom of page 11: "The acreage of UNM plans and/or pledges is still the metric" I am not aware of any interest or intent to generate UNM plans in Maryland. That means that any alternative outreach effort cannot be credited to Maryland.

Under "4.4 Scientific Justification for Core UNM Practices" (p29) Lawn Care Practice 1 reads *Consult with the local extension service office, certified plan writer or applicator to get technical assistance to develop an effective urban nutrient management plan for the property, based on a soil test analysis.*

I don't see any carrot or stick to get homeowners to do this and I find it next to impossible to verify.

Under *Summary of Research on Retail Methods* (p36)

One item reads "Another retail education opportunity involves direct training and certification of commercial fertilizer applicators, who collectively fertilize 15 to 25% of urban turf in the Bay watershed (see Table 10). Recent legislation has instituted training and certification programs in Maryland and Virginia. The Panel noted that targeting commercial applicators may be the most efficient means to get the most UNM plans implemented and verified in the short term."

Maryland law makes this mandatory and backs it up with inspection. However, without a formal UNM plan there is no credit. Why?

End of section 5.1 **State-wide P Reduction Credit for Pervious Land** (p 40)

> The Panel acknowledges that the most appropriate method to verify P fertilizer reductions over time is to analyze the actual nutrient content in future non-farm fertilizer sales data. Therefore, in 2016, the automatic state credit should lapse and be replaced with state-reported estimates of P fertilizer applications to pervious land using the methods and verification procedures outlined in Section 6.1.

This assumes that state data will break out data into "turf" as opposed to "garden" and "all purpose", house plant, and all types of soil conditioners, composts, etc that qualify as non-farm fertilizers. Current data types make this state-wide data useless in quantifying changes in turf practices. A change in how states collect turf fertilizer data will be required.

On to **5.2. State-wide N Reduction Credit for Pervious Land** (p 40-41)

> The Panel also recommends that states may apply for an TN credit after 2014, if they can document a reduction in N fertilizer applications to pervious land using the methods and verification procedures outlined in Section 6.1. The magnitude of the load reduction credit will be calculated by the CBWM, and will be based on the relationship of future state 2014 fertilizer N applications to the current CBWM N fertilizer input application rate for pervious land (43 lbs/acre/year).

There are practices such as multiple, low-rate applications, use of slow release nitrogen sources, buffers, etc. that are recognized to reduce N-loss but the only metric is reduced total annual load. Maryland has legislated setbacks for N application. There will be a small reduction in applied N as a result. It may or may not be measurable. Buffers have long been recognized for the many nutrient-ameliorating functions they perform. There does not seem to be either a credit for this or a route to obtain credit.

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> A property owner or commercial applicator may fail to follow the plan, only implement a few practices, change their minds, or sell the property to a new owner. <u>As currently formulated, UNM plans are not associated with any economic subsidy that can be revoked for non-compliance.</u> The UNM planning agency may also lack the staff resources and legal authority to enforce compliance with the plans.

Maryland legislation ensures compliance for commercial applicators and it is backed up with inspection. This is probably the best accountability mechanism that exists today. According to the above text, Maryland's approach is superior to UNM plans, but because it is in legislation and not UNM plans, no credit is given for it.

6.1 Verification of Statewide Nutrient Reduction Credits

Individual states will retain primary responsibility for reporting, tracking and verification for this credit.

This becomes an unfunded mandate and should have its own fiscal note developed by each state.

Comments/questions from Chesapeake Bay Commission

1.   On page 10, core practice #2 should read: "turf grass OR conservation landscaping"

2.   P. 11: would completion of an industry training program (as opposed to a government-sponsored program) qualify a person as a "trained UNM expert"? What should the components of such a program be?

3.   Before and after surveys are required for alternative outreach campaigns, but not active outreach/"retail" campaigns. Why? Wouldn't the before/after information be just as valuable for the retail programs as well?

4.   The report mentions that even with education, turf management behavior is extremely difficult and slow to change. If that is the case, why is there not more consideration of reduced-N do-it-yourself products? In other words, it would appear that the average DIY applicator will continue to apply the same amount of total product at the same frequency year after year. Therefore, if there is less N in the bag, doesn't it follow that less N is actually being applied, especially since the vast majority of the acreage appears to be serviced by DIY-ers? Ultimately, this may be reflected in decreased non-farm N sales, but as turf acreage increases, won't sales eventually increase as well?

5.   If the N reduction is going to be figured out by subtracting the current verifiable application from the CBWM assumption of 43 lbs/acre/year, (which is equal to 1lb/1000 sq ft /year), won't Md. get some sort of credit for requiring the bags of commercial fertilizer to contain no more than .9 lbs/1000 sq ft/year?

This question is based on the following statement in the report: Section 5.2, p 40.
"The magnitude of the load reduction credit will be calculated by the CBWM, and will be based on the relationship of future state 2014 fertilizer N applications to the current CBWM N fertilizer input application rate for pervious land (43 lbs/acre/year)."

6.   How will a legislatively mandated buffer zone be credited, or will it be credited with an N reduction?

These are comments/questions from MDA:

12.14.12

- Core UNM practices for Bay -#9 requires 20' setback from surface waters, can we make it a range for consistency w/MD state law which is 15' setback?
- Since N reduction credit hinges on fertilizer sales, are jurisdictions willing to commit the resources to assure data collection & reporting is consistent and accurate?
- Is it correct that in terms of CBP model tracking-the ultimate metric will be changes to fertilizer sales? It seems this will outweigh any legislation to improve UNM and reduce fertilizer use
- MD law does not require UMN "plans," but instead requires certified applicators to follow all the mgt requirements in a "plan" as described in CBP recs.. Current verification requirement discounts the MD program and resources MD is investing in their urban program- training, certification, inspection, tracking. **MD should be able to "count" acreage managed under our regulatory program.**
- How do states reconcile data for fertilizer sales & UNM implementation?
- What are the required UNM tracking elements for NEIEN?
- Recognizing the complexity of double counting- is it equitable in terms of other sector requirements when UNM it is assumed that system resiliency is improved when both structural & non-structural BMPs are implemented in same setting and deem the double counting "problem" minimal and therefore not worth addressing?