To: Dr. Frank Coale, chair
From: Bill Angstadt
March 6, 2012

I regret that I can not attend on Thursday. I am speaking at a conference in Denver, CO. I may be able to join at the beginning (if I get the time difference right) and try to call in for the verification discussion.

I wanted to attempt to communicate some issues to be considered by the workgroup regarding BMP verification.

1. We must remember the goal is restoration of water quality in the Chesapeake Bay and its tributaries. Therefore, accounting for implemented farm practices and management decisions that reduce nutrients and sediment losses to surface and ground water resources should be the objective.

2. There is a difference between counting structural BMPs for two-year milestone progress versus data collection for input into the Nutrient & Sediment Scenario Builder. I would suggest that any data collection by the jurisdictions must improve the quality of the parameters and assumptions in the Scenario Builder. For example, will PA's plan to conduct a cropland tillage trisect survey impact Scenario Builder inputs, because low-till & high-till are land use parameters, not BMPs?

3. BMPs are most effective when they are part of a management system – pasture management is a system of grazing, water source, fencing, and riparian setbacks – the counting of just one element, such as fencing, may not accurately reflect (over or under) the actual efficiency of nutrient loss reductions.

4. The existing Bay water quality has been achieved with the implementation by farmers of both counted and uncounted BMPs. Any improvements in water quality will come from the lag time effect of those BMPs and additional BMPs & management decisions adopted in the future. Therefore, round one of verification may be more to establish a baseline to allow round two (for WSM 6.0) to demonstrate long-term progress – than to have value in the short-term.

5. Nutrient Management is the most cost-effective and efficient loss reduction management decision – prevention of excess nutrient applications exceeds mitigation to prevent off-site loss. I do not mean a nutrient management plan, but the adoption of nutrient use efficiency practices, such as right rate, right product, right timing, and right placement, as advanced by the revised NRCS 590 standard. For example, a farmer may lose 60% or more of the nitrogen excreted in dairy or swine manure between handling, storage, and land application to both air and water resources – to only focus on counting the structural mitigation BMPs (i.e. edge-of-field buffers) – ignores the substantial environmental losses that need to be addressed on that farm.

In conclusion, for farms to be recognized for their continued contribution to restoring Bay water quality, the management decisions towards the conservation of nutrients for up-cycle to crops should be a key focus of any Bay verification, tracking, and reporting system.