COMMONWEALTH of VIRGINIA

Office of the Governor

Doug Domenech
Secretary of Natural Resources

September 28, 2011

Mr. Shawn Garvin
Regional Administrator
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103-2029

Dear Mr. Garvin:

The purpose of this letter is to follow-up on our discussions concerning the reduced accuracy of the Phase 5.3.2 Watershed Model. Virginia's concerns echo those you received last July from the Commonwealth of Pennsylvania.

Virginia remains committed to do our share of the watershed wide effort to restore the Chesapeake Bay. We will continue to implement practices that reduce nutrient and sediment pollution as outlined in the Virginia Watershed Implementation Plan and will dedicated millions of dollars to the effort this year. Unfortunately, as explained below, we have discovered that the model contains inexplicable inaccuracies that must be corrected. The current watershed model is undermining the credibility of our collective efforts. Virginia proposes several adjustments to the current process so the clean-up efforts can stay on track and continue moving forward.

Virginia has significant concerns with several aspects of the Phase 5.3.2 Watershed Model. As explained in our presentation to you on September 16th (see attached), the most notable problem exists with the lack of adequate nutrient reduction credit applied to nutrient management plans. This is a problem not only in Virginia but covers numerous counties across the entire Bay watershed as illustrated on slide 4 in the presentation. This serious shortcoming alone renders one of our most effective and commonly used BMPs useless in meeting nutrient reduction goals.

We have found that the model, as currently constructed, is not appropriate for use in assigning loads in permits, developing local load targets, or measuring reduction progress. It is especially not appropriate for imposing any consequences. Attempting to use the model in these ways negatively impacts our planning for the Phase II WIP, along with the credibility of the EPA, and of most concern, exposes Virginia to potential litigation. We ask for your help to resolve these matters through what we believe are reasonable steps.

We are aware that modeling of a watershed as large and complex as the Chesapeake Bay is a monumental task. The current model may be an adequate tool for predicting overall pollution loadings on a watershed basis. However, as we demonstrated in our discussion and presentation on September 16th, and the Maryland presentation sent by Jim Edwards on September 12, when used on a local government level outrageous anomalies occur in the model that are inconsistent with current scientific knowledge.

As a consequence of these discussions, we have developed the attached "Path Forward" document that outlines needed changes and adjusts the schedule. A commitment from EPA to correct these concerns is needed as a precursor to continued Phase II WIP planning efforts.

It is clear that the model, as currently constructed, is not capable of producing meaningful, realistic loading targets for use at the local level and that our time is better spent working with local governments on implementation of the suite of practices described in our Phase I WIP or equivalent measures. Our modified approach to meet our commitments for Phase II and the 2012-2013 Milestones is also described in the attached "Path Forward" document.

Virginia is ready to move forward with the Phase II planning process and development of milestones. However, recognition from EPA of the current problems and limitations of the model, along with a commitment to work together to address them will be key to our success.

I look forward to further discussions on our proposed path forward.

Sincerely,

Doug Domenech

cc: Jeff Corbin, Senior Advisor to the Administrator for Chesapeake Bay and Anacostia River
Jim Edwards, Deputy Director, Chesapeake Bay Program

Path Forward
Proposed Approach for Phase II WIP Development

9/21/11

Three-Track Approach to Implement Phase I WIPs and develop Phase II WIPs

Overview:

- The Chesapeake Bay jurisdictions have expressed serious concerns about using 5.3.2 watershed model output for localities nutrient and sediment reduction targets under the framework of the Chesapeake Bay TMDL and the approved Phase I Watershed Implementation Plans (WIP).

- While useful as a planning and evaluation tool at the watershed scale, the model was not constructed for use at the local scale and its output raises serious questions and concerns among state agencies and our local partners.

- Anomalies present in the output are difficult to explain and in many ways do not represent the "real world" of local watershed management and water quality planning and implementation.

- In order to ensure that these identified issues do not divert attention from the more important task of implementation of the Phase I WIPs and meeting associated TMDL targets, the following approach is proposed that would result in model revisions and ongoing implementation using Phase I WIP practices as the basis for the Phase II WIPs.

The following tracks are proposed to take place simultaneously:

<u>Track 1</u>

EPA continues to work on correcting identified model issues so that it can be used with greater confidence in setting local (sub-segment shed) target loads for N, P and S. The following steps are recommended:

- Holistic review of the following issues:
  - How to model Agricultural Nutrient Management (efficiency or Land Use Change)
  - Calculation of nutrient rates on acres not under nutrient management
  - Load reductions associated with application of nutrient management plans
  - Changes in manure routing preferences through time
  - Amount and nutrient content of poultry manure
  - Biosolids application (include all states or exclude all states)
  - Regional factors due to Phase 5.3.2. Watershed Model calibration

  - Submitted versus credited BMPs
  - BMP stacking (Urban and Continuous No-till)
- Modify Scenario Builder code
- Test Model to determine if modifications produce expected results.
- Re-calibrate watershed model
- Run scenarios
- Review outputs to evaluate other concerns and check for unintended consequences
- Upon agreement by EPA and the jurisdictions, use refined model to establish loading targets at the local level.

Track 2

States develop Phase II WIPs based upon the existing practices identified in the Phase I WIP/TMDL input deck and submit these interim plans to EPA by June 1, 2012. These plans will focus on achieving the 2017 goals.

- Continue current local engagement efforts to collect improved land use, BMP implementation and local implementation strategies as the Phase II WIP is developed. Local engagement efforts will shift focus from meeting local target loads to maintaining implementation levels consistent with the Phase I WIPs.

- The Phase II WIP would provide a mix of BMPs at the segment-shed level.

- States refine the interim BMP targets once the model is deemed sufficient to assign target loads and corresponding levels of BMP implementation needed at the local level as part of the next milestone cycle or the Phase III WIP development.

Track 3

States develop 2012-2013 Milestone implementation actions and strategies and submit these plans to EPA in accordance with the current schedule.