



Defending Agriculture

Legal, environmental hot button issues that impact U.S. farmers.

EPA's Misguided Math

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"EPA slams Virginia's bay cleanup plan" This was the headline from a reporter in Virginia writing about Gov. Bob McDonnell's plan to assist in cleaning up the Chesapeake Bay.

There are six Chesapeake Bay watershed jurisdictions. The plans each have submitted provide insight into what is happening regarding EPA's plans to control nutrient runoff from farms into the Chesapeake Bay. As I have said in previous blogs, EPA plans on regulating water runoff from your farm without acknowledging the agricultural stormwater runoff exemption in the Clean Water Act (CWA).

Virginia submitted its Chesapeake Bay TMDL (Total Maximum Daily Load) implementation plan in the last few days. Regional Administrator for EPA Region III made the assertion that Virginia's plans to clean up the Chesapeake "...are neither specific nor strong enough to rejuvenate the bay..." Media reports say Gov. McDonnell was "deeply disappointed" by EPA's criticism.

Agriculture has a lot at stake in EPA's effort to devise ways to impose its "pollution diet" on the Bay's 64,000-square-mile watershed. What happens in the Bay could be a precursor for farmers across America.

I recommend you review the Governor of Virginia's document at www.deq.virginia.gov/tmdl/chesapeakebay.html. Agriculture is a central issue in Virginia's plan for controlling nutrients running into the Chesapeake Bay.

How will it be done? Virginia will focus on controlling nutrients entering the Bay by implementing nutrient management plans, vegetative buffers, conservation tillage, cover crops, and livestock stream exclusion. The plan advises all in agriculture that by 2025, 95% of the streams in Virginia will be fenced. Sixty percent of the land in Virginia must be farmed under continuous no-till practice. Animal waste systems will need to be installed on 95% of those operating AFOs and CAFOs.

Manure will be required to be exported outside the Bay watershed.

So why would EPA criticize such a stringent plan? In part, it's because the agency is using something called the Chesapeake Bay model in its calculations for cleaning up the bay. But some experts claim EPA's reliance on large, complex and inaccurate computer models is risky.

A 2008 article in Public Administration Review by Howard Ernst, associate professor at the U.S. Naval Academy, is entitled Useless Arithmetic: Ten Points to Ponder When Using Mathematical Models in Environmental Decision Making. This article reviews the use and abuse of computer modeling on water quality in the Chesapeake Bay. In discussing models, the author asserts that computer models are "...1) fig leaves for politicians, 2) refuge for bureaucratic scoundrels, and 3) manufactured truths for industry consultants." The article goes on to describe federal agencies which have "perverse incentives" to rely on computer models.

Gov. McDonnell and his team criticize EPA's use of the Chesapeake Bay model. Virginia declares the model "...is not a perfect representation of actual conditions on the landscape. Rather it is a rough approximation."

The Bay model actually includes an estuary model, an airshed model and a watershed model. Models are simulations and are scientific estimates of average conditions. For example, one state claims the model doesn't include contributions of sediment from dirt roads because estimates of this runoff do not currently exist.

One report points out that Virginia Tech has reported 40% of Virginia's 1.1 million acres are already in continuous no-till operation. Apparently EPA only counts 5,630 acres because those acres are supported through the Conservation Reserve Program (CRP). It is also believed that over 90% of Virginia's cropland east of Interstate 95 is in continuous no-till. It is claimed the computer model does not reflect this reality. (These are serious errors if true.)

EPA can expect little cooperation from farm producers if faulty models and data are being used. All of agriculture is affected by this debate!

Let's hope Virginia and Gov. McDonnell stand by their commitment to "...

tailor our actions within real scientific, economic, social and political frameworks." If not, farmers are facing some dangerous math!

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Agriculture has a lot at stake in EPA's calculated efforts to put farmers on 'pollution diets'

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