

November 5, 2010

Water Docket
Environmental Protection Agency
Mailcode: 28221T
1200 Pennsylvania Ave., NW.
Washington, DC 20460

Re: Draft Chesapeake Bay TMDL, Docket Number EPA-R03-OW-2010-0736

To Whom It May Concern:

Environmental Working Group is a research and advocacy nonprofit with considerable expertise in U.S. agriculture. Our goal is to bring the best data and science to bear to inform the development of policy to address agriculture's environmental challenges.

The reduction of agricultural pollution necessary to restore the health of Chesapeake Bay is a critical environmental challenge receiving considerable Environmental Protection Agency attention. As the agency evaluates state Watershed Implementation Plans (WIPs), EWG urges the EPA to focus on thresholds for land application of phosphorus as an appropriate indicator of "sufficient reasonable assurance" of reductions in agricultural non-point source pollution.

The EPA's draft Chesapeake Bay TMDL (EPA-R03-OW-2010-0736) indicates that draft versions of all state plans contain "some" (Maryland, Washington DC) or "serious" deficiencies (all other states). All the plans lack "sufficient reasonable assurance that pollution controls identified could actually be implemented to achieve the nitrogen, phosphorus and sediment reduction targets by 2017 or 2025." The backstop measures outlined by the EPA to compensate for shortcomings in the state WIPs all include "additional adjustments to agriculture nonpoint sources as necessary to exactly meet nitrogen, phosphorus and sediment allocations."

Phosphorus-saturated soils are the norm for counties found in all six states

Agriculture is the dominant source of the sediment, nitrogen and phosphorus pollution affecting the Bay. It is disturbing, therefore, that a draft USDA report released a few weeks ago concluded that "complete and consistent use of nutrient management (proper rate, form, timing, and method of application) is generally lacking throughout the region. About 81 percent of the cultivated cropland acres require additional nutrient management to reduce the loss of nitrogen or phosphorus from fields" (USDA 2010).

Simulations indicate that if the 3.5 million acres identified as "under-treated" were managed using "appropriate soil erosion control and/or nutrient management practices, total loads delivered to the Bay (all sources) would be reduced from current levels by 7 percent for sediment (bringing loads from cultivated cropland down very close to "background levels"), 17 percent for phosphorus, and 16 percent for nitrogen" (USDA 2010). USDA calculations indicate that widespread adoption of

practical, soil-building and resource-conserving land management practices alone could accomplish the necessary pollution reductions EPA has identified as essential to restoring the bay.

EWG's recent research on Chesapeake Bay, to be released shortly, centers on mapping and analysis of soil test phosphorus data available from land grant universities for all counties in the watershed, spanning six states. Healthy plants require appropriate levels of available phosphorus in soil, but this nutrient builds up in the soil over time if more is applied in manure or fertilizer than crops require. As soils become overloaded, they reach a tipping point and begin to readily release this persistent pollutant, poisoning local aquatic ecosystems as well as the bay.

EWG's maps show for the first time just how widespread "excessive" levels of phosphorus are in the region – levels far in excess of what crops need to thrive and likely to cause environmental damage, according to parameters developed by each state. Our analysis indicates that in one of every five counties in the watershed, more than half the soils tested contained these "excessive" levels. These overburdened counties are located in all six states. Although such soils are already potentially dangerous sources of pollution, farmers are often permitted to apply additional phosphorus-rich manure, sewage sludge or fertilizer.

States must craft policies that limit phosphorus application on overloaded lands

Based on its findings, EWG is making policy recommendations that include setting strict limits to phosphorus application to soils that already contain high levels. It is essential to develop and use region-wide, science-based soil test levels to guide phosphorus application. The watershed states must also fill a crucial data gap by undertaking basic data collection and analysis of existing levels in soils if plans to restore the Chesapeake Bay are to succeed.

We advise EPA to establish as a criterion for "sufficient reasonable assurance" for each state WIP the adoption of a program to restrict phosphorus application on lands already overloaded with the nutrient. At a minimum, EPA should require that all states implement the agency's own recommendations for federal land management, which ban phosphorus additions to lands with saturation percentages above 20 percent (EPA 2010). However, a more conservative and scientifically defensible approach would be to apply only the levels of phosphorus needed for plants to thrive, as determined by soil test phosphorus measurements.

We thank EPA for this opportunity to comment on its ongoing efforts to restore Chesapeake Bay and look forward to working with the agency on this critical mission in the future.

Sincerely,



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References:

EPA (Environmental Protection Agency). 2010. Executive Order 13508 Chesapeake Bay Protection and Restoration Section 502 Guidance. Docket No. EPA-HQ-OW-2010-0164. Available at: www.epa.gov/nps/chesbay502/.

USDA (U.S. Department of Agriculture). 2010. Assessment of the Effects of Conservation Practices on Cultivated Cropland in the Chesapeake Bay Region. Review draft, October 2010. U.S. Department of Agriculture, Conservation Effects Assessment Project.