



CHESAPEAKE BAY FOUNDATION

Saving a National Treasure

PHOSPHORUS MANAGEMENT TOOL

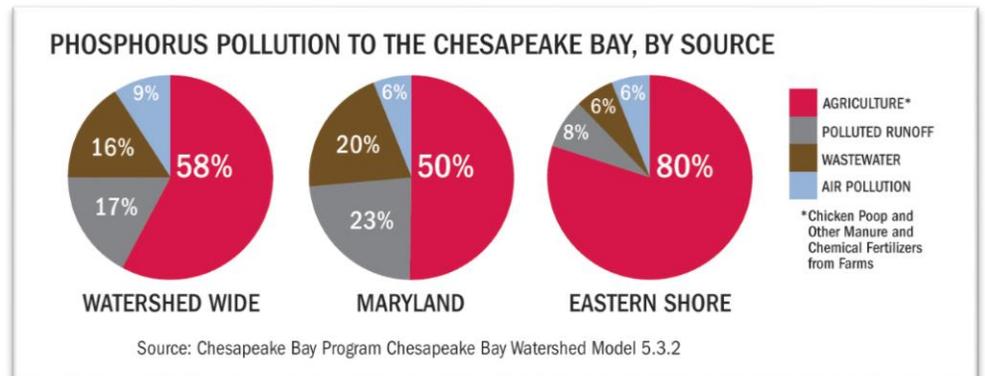
What does it do?

The Phosphorus Management Tool (PMT) is an environmental risk assessment tool that identifies the fields and soils that contain the most phosphorus and have the highest risk of phosphorus runoff, which pollutes local waters. Implementing this tool will significantly reduce phosphorus pollution of Maryland's water, especially on the Eastern Shore.

Why do we need it?

Excess phosphorus contributes to algal blooms and dead zones in creeks, rivers and the Chesapeake Bay. Harmful bacteria in animal manure—the primary source of phosphorus fertilizer on Maryland's Eastern Shore—can also make water unsafe for swimming and fishing. Fully 80% of the phosphorus pollution on the Eastern Shore comes from

agricultural sources—manure fertilizer applied in excess of the amount that can be taken up by crops. The Choptank River is the only river in Maryland with an increasing trend in phosphorus loads, and its watershed is primarily in agricultural land use. The PMT reflects the latest recommendations from Natural Resources Conservation Service, which has found that current phosphorus management is not adequately assessing and preventing the water quality impacts of phosphorus.



How does it work?

Soil is tested to determine the amount of phosphorus in the soil, and it is then classified as having “low,” “medium,” “optimum,” or “excessive” amounts of phosphorus. That measure of phosphorus in the soil is considered with other factors such as the slope of the land, the type of soil, and the proximity of waters. When a farm field has a low phosphorus content and low runoff risk, the farmer can apply the amount of additional phosphorus that the crops will remove from soil in three years. When a farm field has medium phosphorus content and medium runoff risk, the farmer must limit phosphorus application to an amount that one year of crops can remove. When the field's soil has excessive amounts of phosphorus and high runoff risk, the farmer is directed to apply no additional phosphorus, and to implement techniques to remove some of the excess phosphorus. The new PMT has a phase-in period of six years, with no changes in practice required from farmers until 2017.

Where did this requirement come from?

The Phosphorus Management Tool reflects more than 10 years of research conducted by University of Maryland scientists in collaboration with regional and national experts. Implementing the tool is an element of Maryland's Watershed Implementation Plan (WIP), the federally mandated document that outlines specific steps the state will take to protect and restore the Chesapeake Bay.

Why does CBF support adoption of the new Phosphorus Management Tool?

Through our long years of cooperative problem-solving with farmers, our devotion to supporting scientifically sound policy changes and our own experience running CBF's Claggett Farm, the trepidation of using the new Phosphorus Management Tool is understood. CBF supports efforts to improve the Department of Agriculture's preparedness for this policy change by supporting cost share programs to mitigate the potential of increasing costs on affected farmers. However, if we don't begin to adopt the changes in our agricultural practices that we know cause pollution to local streams, groundwater and the Bay, we will fail to meet the goals of the Chesapeake Bay Clean Water Blueprint.