

# FIGHTING PHOSPHORUS

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## Report suggests ways to keep land green, lake blue

**S**lime time approaches in the western basin of Lake Erie. As the weather warms and the spring rains wash away winter, the phosphorus from accumulated fertilizer and animal waste flows from farm and pasture into the Maumee River. That river, in turn, empties into the shallow, fragile ecosystem and fish-spawning grounds of the western basin of Lake Erie, fertilizing toxic green scum colonies.

These toxic algal blooms metastasize into vast, undulating pea-soup blooms — the largest of which slimed a 2,000-square-mile area of Lake Erie in 2011 and could be seen from outer space.

*Microcystis aeruginosa* biomasses will again blemish the surface of Lake Erie in 2014, fouling tap water and beaches, and threatening public health (the algal blooms contain a liver toxin) and a billion-dollar tourism industry.

It is too early to predict how extensive the blooms will be, but not too late to try harder to minimize the runoff of manure and chemical fertilizers that turn the western basin into a cess-pool that eventually could poison the entire lake from Ohio to Ontario.

The International Joint Commission — a Canadian-U.S. Great Lakes watchdog — remains cautiously optimistic. It just released a study that applies a Michelle Obama “Eat Healthy” initiative to address the greening of our Great Lake.

“A Balanced Diet for Lake Erie: Reducing Phosphorus Loadings and Harmful Algal Blooms” targets the threats posed by dissolved reactive phosphorus — more commonly known as solid waste of either an organic or chemical nature — in the Maumee River watershed. The Maumee’s watershed is a primary source of agricultural effluence.

Instead of carbo-loading, the proposed Lake Erie nutritional

regimen focuses on less nutrient-loading. The report recommends a total maximum daily load aimed at reducing phosphorus levels by as much as 37 percent over the next few months from the 2007-2012 averages.

That is one of 16 science-based suggestions in the 100-page document that took two years of research and public input to produce. It also addresses the negative impact beyond the Maumee watershed, in areas around Cleveland and other lakefront cities, of stormwater and sewage overflows, lawn fertilizer runoff and the dispersal of dredged sediments — notably from Toledo Harbor into the open waters of Lake Erie.

None of these recommendations is new, but they need to be more widely known and to prompt much stronger and more immediate action from communities and sewer districts, homeowners and farmers.

The report wisely advocates that the U.S. Environmental Protection Agency adopt and enforce stringent guidelines on the amount of phosphorus dumped in the western basin. An EPA spokeswoman said in an email that the EPA will review the report and noted that it is “working with Environment Canada to implement provisions” in a water quality agreement that targets “excessive nutrient levels in the Great Lakes, including Lake Erie.”

Regulatory guidelines are needed for farmers as well as home gardeners.

To their credit, the Ohio Department of Natural Resources and its Ohio Clean Lakes Initiative already are working with a coalition of soybean, corn and wheat growers who have ponied up \$1 million — matched by the U.S. Department of Agriculture — to fund research at Ohio State University on best practices to prevent phosphorus runoff.

Creating some common-sense interim markers for best practices now while that study is ongoing should help guide the way to healthier standards for the future.