

## GREAT LAKES FREE OF TOXIC ALGAE

*Throughout the Great Lakes Basin, we are witnessing a rise in water quality challenges resulting from runoff pollution into our lakes, rivers, and streams. This type of pollution occurs primarily when rainfall washes phosphorus-rich fertilizer and manure spread on large farm fields into streams that flow into the Great Lakes. Excess phosphorus from the runoff pollution fuels the growth of massive toxic and harmful algal blooms that pose a serious danger to public health, our environment, and our water-based recreation economy. Toxic and nuisance algae due to high runoff pollution has contaminated drinking water supplies, led to beach closures, and fed an ecological “dead zone” in Lake Erie.*

### BACKGROUND

*Toxic algae poisons drinking water and puts our blue economy at risk:*

- The costs and risks of runoff pollution in the Great Lakes made headlines in August 2014 when toxins from a massive algal bloom in Lake Erie contaminated drinking water supplies in Toledo Ohio and left **more than 400,000 Ohioans and Michiganders without access to clean, safe water.**
- According to a report from the University Research Corridor, **one in five Michigan jobs** is dependent on the state’s clean, abundant freshwater.

*Phosphorus Runoff from Agriculture is the leading Driver of Toxic Algae in Lake Erie:*

- According to the University of Michigan Water Center, **approximately 85 percent of the phosphorus entering Lake Erie** from the Maumee River comes from farm fertilizers and manure.
- At least a **40 percent reduction in phosphorus loading to the western basin of Lake Erie** is needed to minimize algal growth going forward.
  - Based on modeling done by the U of M Water Center, meeting the 40-percent reduction target will require widespread use of strong fertilizer-management practices, significant conversion of cropland to grassland and more targeted conservation efforts.

*While the leading contributor is the agricultural sector, waste from sewage plants is also a factor in algal growth:*

- According to data from the Alliance for the Great Lakes, **24 billion gallons of combined untreated sewage and stormwater** is dumped into the Great Lakes year.
- The Michigan Department of Environmental Quality estimates that there are **approximately 130,000 failing septic systems** across Michigan, which are believed to release **31 million gallons of raw sewage every day into Michigan waters.**

### ACTIONS NEEDED TO MITIGATE TOXIC ALGAE GROWTH

- The Michigan legislature should increase funding for water quality monitoring.
- The Michigan Legislature should ban manure, biosolid, and fertilizer application on frozen, snow covered, and saturated ground.
- The Michigan Legislature should adopt a statewide, uniform septic code and septic inspection requirements.
- The Michigan Legislature should require farm operations in Michigan and non-permitted Confined Animal Feeding Operations (or CAFOs) to develop and implement nutrient and/or manure management plans that detail what best management practices farmers will use to reduce runoff pollution.
- The Michigan Legislature should require farmers to conduct annual soil testing and limit phosphorus applications to the rate and amount a plant needs to take up to grow.