



December 7, 2015

Water Resources Division,  
Michigan Department of Environmental Quality,  
P.O. Box 30458, Lansing, MI, 48909-7958

Re: Comments on Michigan's Implementation Plan- Western Lake Erie Basin Collaborative

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On behalf of the Michigan League of Conservation Voters, we applaud Governor Snyder and his administration for committing to a 40 percent load reduction in total and dissolved reactive phosphorus entering the Western Lake Erie Basin by 2025. Across the Great Lakes region toxic algal blooms and nuisance algal blooms are putting at risk the ecosystem health and economic productivity of our unique freshwater resources. The blooms fueled by excess nutrient runoff that have plagued Lake Erie in recent years are the most obvious example of a problem confronting numerous water bodies across Michigan. And it is a problem that is, unfortunately, only getting worse. The algal bloom that covered Lake Erie in the summer of 2015 was the biggest, most dense, and most severe bloom ever recorded. As the damaging impacts of algal blooms persist, we need solutions that are comprehensive in approach and respond with the urgency that matches the enormity of the problem and its negative public health, environmental, and economic impacts.

While we recognize the important progress that Michigan has made under existing programs toward protecting Lake Erie and we strongly support efforts to develop regulatory, voluntary and market-based approaches that work together to curb the flow of excess nutrients in Michigan's waterways, our state's new commitment represents a significant opportunity to fully address the persistent problem of algal blooms. Michigan's implementation plan is the critical first step toward that end.

Achieving our commitment of 40 percent reduction and adequately protecting our public health and water resources from toxic algal blooms necessitates a plan that seeks to drive swift and effective phosphorus reductions from both agricultural and waste treatment sectors. However, the draft implementation plan released by the Michigan Department of Environmental Quality (DEQ) falls largely short. As written, it lacks the comprehensive approach needed to advance the adoption of a broad scope of action steps that would efficiently and effectively reduce both total and dissolved reactive phosphorous from all sources. Without revision, it is a missed opportunity to better protect Lake Erie from toxic algal blooms.

We urge the DEQ to strengthen and improve its approach to addressing the toxic algal blooms that plague our waterways by taking into account the following points in its implementation plan:

- Establish an iterative planning process that allows for amending the plan if reduction targets are not being achieved, if the desired outcomes identified in the draft plan are not

being realized, or if new events or new scientific information necessitates adapting action steps. This process should go beyond the annual reporting outlined in the draft plan and should include robust stakeholder and public engagement.

- Establish a process to identify sources of phosphorus, including locations, causes, and amounts. This process should allow for the differentiation of sources such as chemical fertilizers, livestock manure, combined sewer overflows, and septic waste. The process could be established in conjunction with research efforts the DEQ identifies in the draft plan in implementation actions #3, #4, and #6, but should also include the Detroit River.
- Increase and augment current surface water monitoring systems to establish a more comprehensive, transparent, and verifiable water quality data stream. This system should include continuous sampling stations throughout the Western Lake Erie basin and increased edge of field monitoring to accurately determine if reductions are being achieved. Monitoring should also log both total and dissolved reactive phosphorus levels. Later sections of the plan indicate that Michigan will develop a monitoring strategy for the Maumee River tributaries. That monitoring plan in particular should include locations aimed specifically at identifying CAFO discharges and monitoring the efficacy of CAFO's manure management systems given the presence and impact of CAFOs in Lenawee County on the Maumee River tributaries.
- Provide data and reduction trends for dissolved reactive phosphorus (DRP) for the three main areas of focus and identify specific action steps aimed at reducing DRP in line with achieving the target goal. Governor Snyder's commitment was for a 40 percent total load reduction in both total and dissolved reactive phosphorus. The draft plan lacks any data on DRP and fails to provide an outline for how Michigan will achieve reductions in DRP specifically. Science and research is increasingly pointing to the leading role that DRP plays in fueling recent toxic algal blooms. In fact, total phosphorus contributions from point sources had steadily decreased since the 1980s, while surges in DRP levels carried by heavy spring runoff from agricultural fields corresponds directly with more severe algal bloom events. If the implementation plan does not take into account DRP it will likely fail to achieve the desired outcomes for Lake Erie (reducing nuisance algal blooms, controlling harmful algal blooms toxins, and minimizing hypoxia).
- Provide data, modeling, amounts, and source locations for the estimated load reductions the DEQ attributes to the statewide residential fertilizer phosphorus ban. In the draft plan the DEQ extrapolates load reduction estimates from a 2006 study conducted in Ann Arbor on a residential ban, which demonstrated a 30 percent drop in loading to surface waters in residential areas. However, nowhere in the draft plan does the DEQ lay out any specifics on how it applied this extrapolated percentage drop nor does the DEQ provide reduction numbers for each of the three main areas of focus (the Detroit River, the River Raisin, and the Michigan portion of the Maumee River basin). Without information on amount and methodology it is impossible to verify the accuracy of reductions achieved from the residential ban.
- Identify how the DEQ will close the remaining two percent gap in reductions to the Detroit River or benchmark that percentage gap as an aspect of the implementation plan that will need to be revisited.
- Account for the impact of Combined Sewer Overflows and detail efforts underway to reduce the instances of CSOs.

- Account for the impact of spreading fertilizer and manure on frozen and/or snow covered fields and amend current DEQ regulations and permits to ban this practice. Application of fertilizer and manure to frozen and/or snow covered ground is a contributing factor to high levels of nutrients in spring runoff which exacerbates the problem of seasonal degradation of water quality. The International Joint Commission called for “ban[ning] the application of manure, biosolids and commercial fertilizers containing phosphorus from agricultural operations on frozen ground or ground covered by snow for lands that drain to Lake Erie.” Ohio has taken critical steps to prohibit this practice and Michigan should follow suit.
- Account for the impact of failing septic systems and include recommendations or action steps for reducing septic waste discharges.
- Include action steps that detail coordinated action between the DEQ and the Michigan Department of Agriculture and Rural Development (MDARD). This coordinated action should be focused on requiring regular soil sampling to obtain accurate results for agronomic rate determinations, crop yields, and escapement of phosphorus into waters and identifying and more broadly implementing on-farm conservation practices that effectively reduce and control phosphorus loading.
- Partner with MDARD and the Office of the Great Lakes to study and compile existing research on the impacts of tile drains on total and dissolved phosphorus loading and implement best practices and drainage management to reduce nutrient loss via tile drains. Michigan’s recently released water strategy recommends “develop[ing] new technologies and best management practices to address tile lines and water management, and pilot[ing] and evaluat[ing] the adoption of innovative methods for nutrient management from tile line discharges.” The DEQ should adopt this recommendation as part of the implementation plan and support follow through with the pilot project.
- Provide an outline of an itemized budget that will be put towards achieving the 40 percent reduction over the next 10 years. The budget should include both currently allocated resources and those additional resources needed to fulfill the commitment.

We appreciate your consideration in this matter and hope that the DEQ will fully address the above recommendations in the final implementation plan. We look forward to working together to improve the health of Lake Erie and all of Michigan’s waterways.

Sincerely,

Charlotte Jameson  
 Policy Manager  
 Michigan League of Conservation Voters