STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

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VIA E-MAIL

TO: Senate Appropriations Subcommittee on Environmental Quality Members
House Appropriations Subcommittee on Environmental Quality Members
Ellen Jeffries, Director, Senate Fiscal Agency
Mary Ann Cleary, Director, House Fiscal Agency

FROM: Barb Schaibly, Administration Deputy Director

Barb Schaibly

DATE: March 10, 2017

SUBJECT: Report on the Status of the Implementation Plan for the Western Lake Erie Basin Collaborative Agreement

In accordance with Section 410 of Part 2, Article VII, of 2016 PA 268, attached is the Department of Environmental Quality's (DEQ) report on the Status of the Implementation Plan for the Western Lake Erie Basin Collaborative Agreement.

If you need further information, please contact Phil Argiroff, Assistant Division Director, Water Resources Division, at 517-284-6668; or you may contact me at 517-284-5147.

Attachment

cc/att: Al Pscholka, Director, State Budget Office
Darin Ackerman, Governor's Office
Angela Ayers, Governor's Office
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Department of Environmental Quality
Status of the Implementation Plan for the
Western Lake Erie Basin Collaborative Agreement
March 10, 2017

This report is being submitted to fulfill the reporting requirement contained in Section 410 of Part 2, Article VII, of 2016 PA 268.

Lake Erie has nuisance and harmful algal blooms (HABs) in the Western Basin and dissolved oxygen depletion in the Central Basin. In June 2015 Governor Rick Snyder signed the Western Basin of Lake Erie Collaborative Agreement (Agreement) with the Premier of Ontario and the Lieutenant Governor of Ohio. Section 410 requires that the Department of Environmental Quality (DEQ) compile a report on the status of the Implementation Plan for the Agreement. The DEQ shall submit the report to the House and Senate Appropriations Subcommittees on Environmental Quality and the House and Senate Fiscal Agencies.

The Agreement with Ohio and Ontario calls for a 40 percent reduction in phosphorus loading to the Western Basin by 2025. Each party was to develop an implementation plan to accomplish this. Michigan published its final implementation plan in January 2016 after considering public comments. Significant implementation accomplishments to date follow:

1. Maintain the reductions of total phosphorus (TP) load reductions from the Detroit Wastewater Treatment Plant (WWTP), in part due to more stringent TP limits placed in the 2013 National Pollutant Discharge Elimination System (NPDES) permit. *The DEQ's Water Resources Division (WRD) continues to hold monthly calls with the Great Lakes Water Authority (GLWA) (which now operates the Detroit WWTP) and the Detroit Water and Sewerage Department (DWSD). TP reductions are continuing, and the Detroit WWTP typically discharges from its main outfall in the 0.2-0.4 milligram per liter (mg/l) TP concentration range (the new limit is 0.6 mg/l growing season average). The Detroit WWTP continues to discharge TP loads that are about 350 metric tons less than 2008 levels. The TP reductions at the Detroit WWTP are the primary cause for the TP reductions at the mouth of the Detroit River into the western Lake Erie Basin (WLEB).*

2. Achieve TP reductions from the Wayne County Downriver WWTP. *The WRD has placed this permit on public notice and will issue the NPDES permit in 2017 with the more stringent TP limits to be achieved by 2020 that are consistent with those specified in the Detroit WWTP (a growing season average of 0.6 mg/l).*

3. Achieve the target TP reductions in the Maumee River basin in Michigan. *The monitoring plan that was included as Appendix C in the Implementation Plan has now commenced. Two storm events have been monitored, and two sets of monthly samples have been taken. In addition, the WRD has met with*

counterpart agencies from Ohio and Indiana to begin discussing coordination of monitoring in the Maumee River. The WRD is also working to approve or develop watershed management plans for two areas of the Upper Maumee River sub-basin. Indiana stakeholders developed a watershed management plan for the St. Joseph River, and the WRD recently approved the portions in Michigan. The WRD offered a federal Clean Water Act Section 205(j) grant to the Hillsdale County Conservation District to develop a watershed management plan for Michigan's portion of the Tiffin/Bean watershed in the Upper Maumee River sub-basin. Most of the DEQ's watershed management plan grants run for 2-3 years.

4. Help with monitoring and understanding HABs regarding presence, timing, and cause in Michigan waters, including the Great Lakes. *This is a critical issue of importance in the WLEB. An HAB produces toxin(s). In the WLEB, blooms of cyanobacteria can produce toxins(s). An HAB workgroup, coordinated by the WRD with input from several departments/agencies, continues to make progress to provide a better understanding regarding presence and timing. In May 2016 the DEQ issued a request for proposals to develop a deeper understanding of how harmful blooms develop and how to prevent them. To assist in the development of technology to combat HABs, $241,887 was awarded in grants.*

5. Help with understanding the role of invasive mussels in causing Lake Erie algae blooms and the effect of potential mussel control options. *The Invasive Mussel Collaborative, led by the Great Lakes Commission, the National Oceanic and Atmospheric Administration, United States Geological Survey, and the Great Lakes Fishery Commission, established a Science Team to identify needs and gaps in Dreissenid research. Gaps include the need for improved understanding of Dreissenid effects on nutrient cycling and the lower trophic levels of Great Lakes foodwebs.*

6. Understand the specifics regarding the TP reductions observed for the Raisin River watershed. *A document was completed in February 2016, called, "What was the Cause?" This document discussed WRD's determination that, among other things, Concentrated Animal Feeding Operations NPDES permitting and compliance with those permits, and nonpoint source activities, especially best management practices related to agriculture, were the main source reductions that resulted in lower loads of TP. In addition, the NPDES permit for the Monroe Metro WWTP was also issued in May 2016 with more stringent TP limits (0.6 mg/l growing season average) that are consistent with those for the Detroit WWTP and a schedule to achieve those tighter limits by 2019.*

7. Research involved with dissolved reactive phosphorus (DRP); analytical methods, quantification levels, conversion and uptake of this form of phosphorus, and what source controls and management practices are available for DRP. *Work will commence on this item in 2017.*

In addition, the International Joint Commission established a process under Annex 4 to bring the United States and Canadian governments together to address the water quality issues affecting Lake Erie. This process is chaired by the United States Environmental Protection Agency and Environment Canada, with participation by Michigan, Ohio, Indiana, Pennsylvania, New York, and Ontario. The Annex 4 process has also concluded that a 40 percent reduction from 2008 levels in phosphorus loading to the Western and Central basins is needed to address these water quality problems. The next step is to develop Domestic Action Plans by 2018. The DEQ, Department of Agriculture and Rural Development, and Department of Natural Resources are working together, building on Collaborative Implementation Plans, in part, to develop the Domestic Action Plan. This document should be drafted by the end of April 2017, and then stakeholder and public input will be obtained in May 2017.