



## STORMWATER MANAGEMENT COMMISSION

August 4, 2022

TO: Stormwater Management Commission  
FROM: Mia Gerace, Stormwater Coordinator  
Ernesto Huaracha, Water Resources Professional  
RE: MS4 Update: Lake Michigan (Nearshore) TMDL PCB & Hg Pollutant Load Assessments

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### ACTION REQUESTED: INFORMATION

Per Section 303(d) of the federal Clean Water Act, requires states to identify waters that do not meet applicable water quality standards or do not fully support their designated uses and requires that a TMDL be developed for each pollutant of an impaired water body. The Illinois Environmental Protection Agency (IEPA) is responsible for carrying out the mandates of the Clean Water Act for the state of Illinois.

IEPA establishment of a Total Maximum Daily Load (TMDL) sets the pollutant reduction goal necessary to improve impaired waters. TMDL determines the greatest amount of a given pollutant that a water body can receive without violating water quality standards and designated uses. A TMDL defines pollutant sources compliance with either a Waste Load Allocation (WLA) (*i.e. loading from known point sources*) or a Load Allocation (LA) (*i.e. loadings from nonpoint sources including natural background*). IEPA established the Illinois Lake Michigan (Nearshore) Watershed - Mercury and PCBs TMDL Reports, which were approved by the U.S. Environmental Protection Agency (USEPA) on April 18, 2019. IEPA, typically notifies all NPDES Permittees of the TMDL for compliance requirements. IEPA was informed that they had not provided written notice to NPDES Permittees regarding the TMDL approval. IEPA therefore issued a written notification on June 22, 2022. All MS4 Permittees in Lake County were assigned a WLA in the Lake Michigan watershed. MS4s must update their stormwater management plan and develop an action plan to address TMDL WLA by December 22, 2023. Per the TMDL Schedule for Implementation, IEPA allows up to eighteen months following the written notification to assess and develop a means of compliance to the TMDLs.

The Lake County MS4s included are:

State:	Illinois Department of Transportation	
County:	Lake County	
Townships:	Waukegan Township	Shields Township
Municipalities:	Winthrop Harbor	Zion
	Beach Park	Waukegan
	North Chicago	Lake Bluff
	Lake Forest	Highwood
	Highland Park	

The Mercury TMDL report states that mercury loading in the study area is primarily a result of atmospheric deposition. The PCB TMDL report found the most significant sources to the study area are also atmospheric loading and hydrodynamic transport of PCBs from the open water of Lake Michigan. As mentioned, the TMDL established WLA value in the Lake Michigan watershed to MS4s for both PCBs and Mercury.

The IL EPA Waste Load Allocations for each pollutant are as follows:

- Hg 0.0003(b) (kg/day)
- PCBs 0.000006 (kg/day)

IEPA identified and determined, a watershed wide implementation plan spelling out the actions necessary to achieve the goals. The TMDL specified limits for point source discharges and recommended best management practices (BMPs) for nonpoint sources.

IEPA proposed an approach best management practices (BMPs) sequence to control and reduce discharges of PCBs and mercury.

1. Evaluate levels of PCBs and mercury in areas of the MS4 to identify areas more likely to contribute the pollutants to surface waters.
2. Evaluate levels of PCBs and mercury in solids, at a quantitation level appropriate for identifying these areas using a USEPA-approved test method.
3. Prioritize BMPs that are related to reducing or eliminating PCBs and mercury in stormwater in areas of the MS4 more likely to contribute PCBs and mercury to surface waters, based on any available information.
4. Remove accumulated solids from drain lines (including inlets, catch basins, sumps, conveyance lines, and oil/water separators) in priority areas of the MS4 at least once during the permit cycle.
5. Work with partners to remove any identified legacy mercury and PCB sources within the MS4 (e.g., PCB- containing sealant) as soon as practicable.
6. Purchase preferred products with the lowest practicable PCB and mercury concentrations for products that are likely to contact municipal stormwater.
7. Collaborative efforts are encouraged to comply with PCB and mercury source control requirements to achieve reductions sought in the TMDL.
8. The permits should include the following requirements for new development and redevelopment disturbing one acre or more: Site design to minimize impervious areas, preserve vegetation, and preserve natural drainage systems; and on-site stormwater management.

TMDL Schedule for Implementation: Following notification by Illinois EPA of the TMDL approval, the permittee must modify their stormwater management program to implement the TMDL recommendation, if the permittee determines they are not meeting the TMDL allocations within eighteen months of the notification date. Additional details are found in the General NPDES Permit ILR40, Part III Special Conditions C.

#### **Anticipated support needs to Lake County TMDL compliance**

##### **County of Lake MS4**

SMC as the Stormwater Coordinator for the County of Lake MS4 program, is currently working to identify local water quality testing laboratories with the capabilities to test for PCBs and mercury at the WLA threshold specified levels.

SMC can work to coordinate a costing scenario(s) based on SMC and County department direction to develop a monitoring program in order to identify baseline pollutant level. Monitoring results of baseline pollutant levels will determine next steps and whether structural BMPs are needed. SMC will work with County of Lake Departments (CAO, LCDOT, LCHD, LC-Facilities) in the watershed for guidance, input, support, and funding capacity in order to develop a County MS4 program approach for TMDL compliance.

#### **Qualified Local Program (QLP)**

As the Qualified Local Program (QLP) to 72 MS4 permittees Lake County, the Stormwater Coordinator will look to secure educational topics as available for continued education on TMDL impacts to stormwater.

As mentioned, SMC is currently working to identify local water quality testing laboratories with the capabilities to test for PCBs and mercury at the WLA threshold specified levels and information gained from the process will be provided to the MS4 communities listed above as a resource for their own compliance approach.

Questions can be directed to Mia Gerace [mgerace@lakecountyil.gov](mailto:mgerace@lakecountyil.gov) and/or Ernesto Huaracha [ehuaracha@lakecountyil.gov](mailto:ehuaracha@lakecountyil.gov).