

Binational and Domestic Targets to reduce phosphorus entering Lake Erie



Nicola Crawhall, Deputy Director
Great Lakes and St. Lawrence Cities Initiative
Farmland Drainage and Phosphorus Reduction Planning Meeting
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Outline

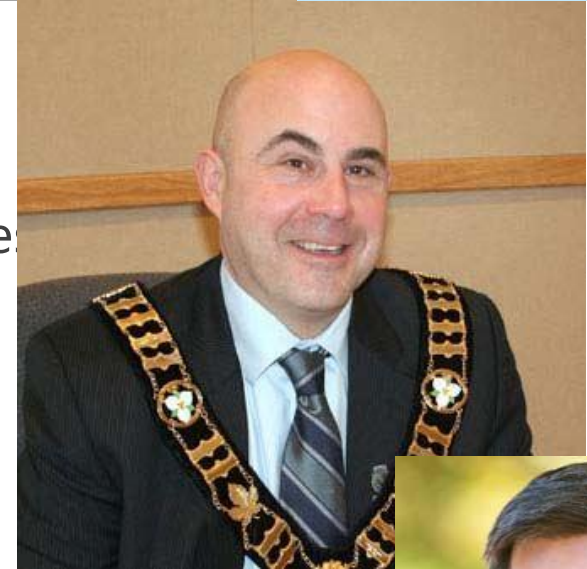


- 1 How we got here
- 2 Annex 4, Great Lakes Water Quality Agreement
3. Western Lake Erie Collaborative
4. Great Lakes Protection Act
5. Action on the ground

The Cities Initiative



- Mayors organization spanning two countries, eight states, two provinces, 120 municipalities.
- Focused on protection, restoration and promotion of the Great Lakes and St Lawrence.
- Mitch Twolan, Mayor of Huron-Kinloss – Chair
- Denis Coderre, Mayor of Montreal, Vice-Chair
- Founded by Richard Daley, former mayor of Chicago, in 2003.
- Representation on Great Lakes Executive Committee, IJC Water Quality Board, Great Lakes Fisheries Commission, etc.



Lake Erie and Toxic Algae



You're glumping the pond where the Humming-Fish hummed
No more can they hum, for their gills are all gummed.
So I'm sending them off. Oh, their future is dreary.
They'll walk on their fins and get woefully weary
in search of some water that isn't so smeary.

I hear things are just as bad up in Lake Erie.

— *The Lorax*, by Dr. Seuss



Lake Erie and Toxic Algae

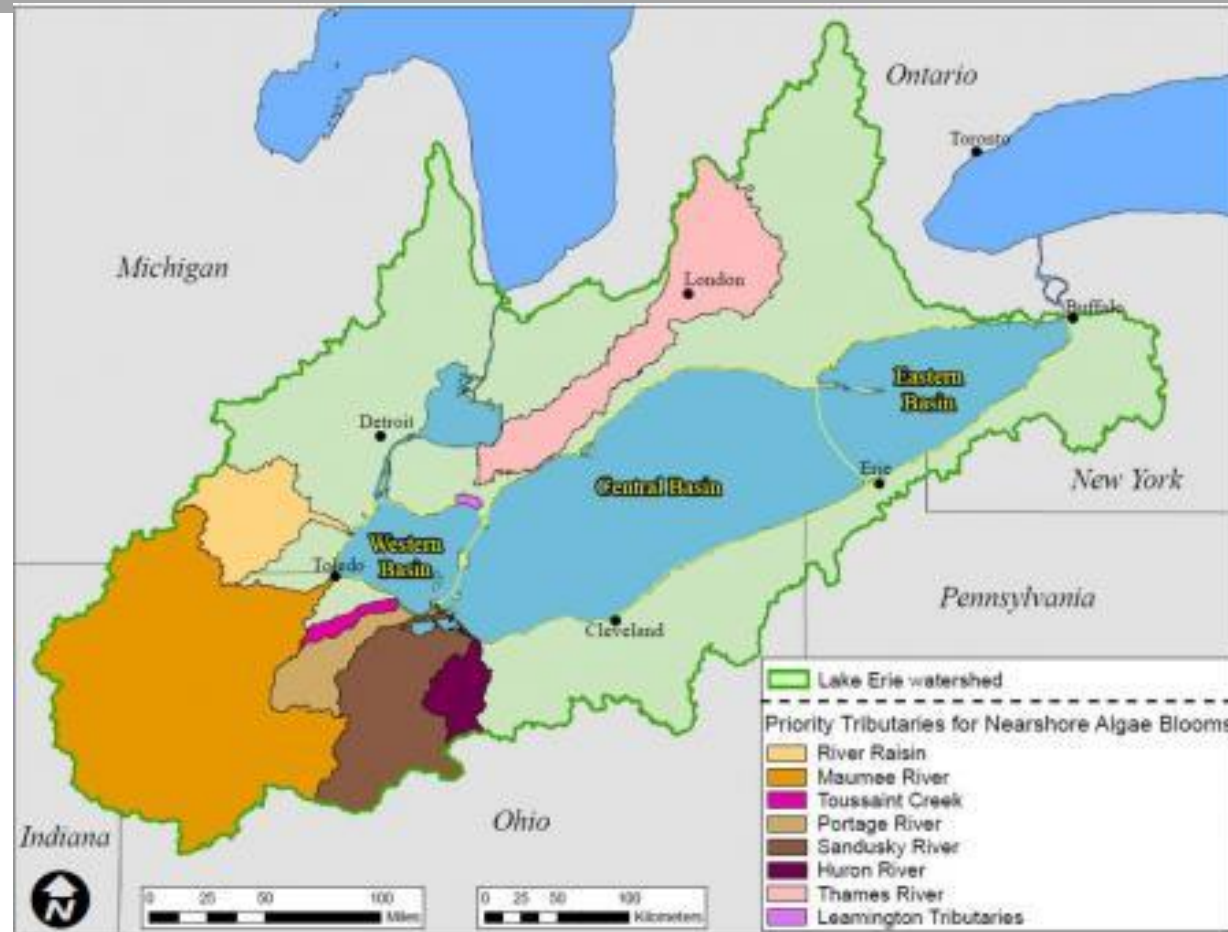


Perfect storm:

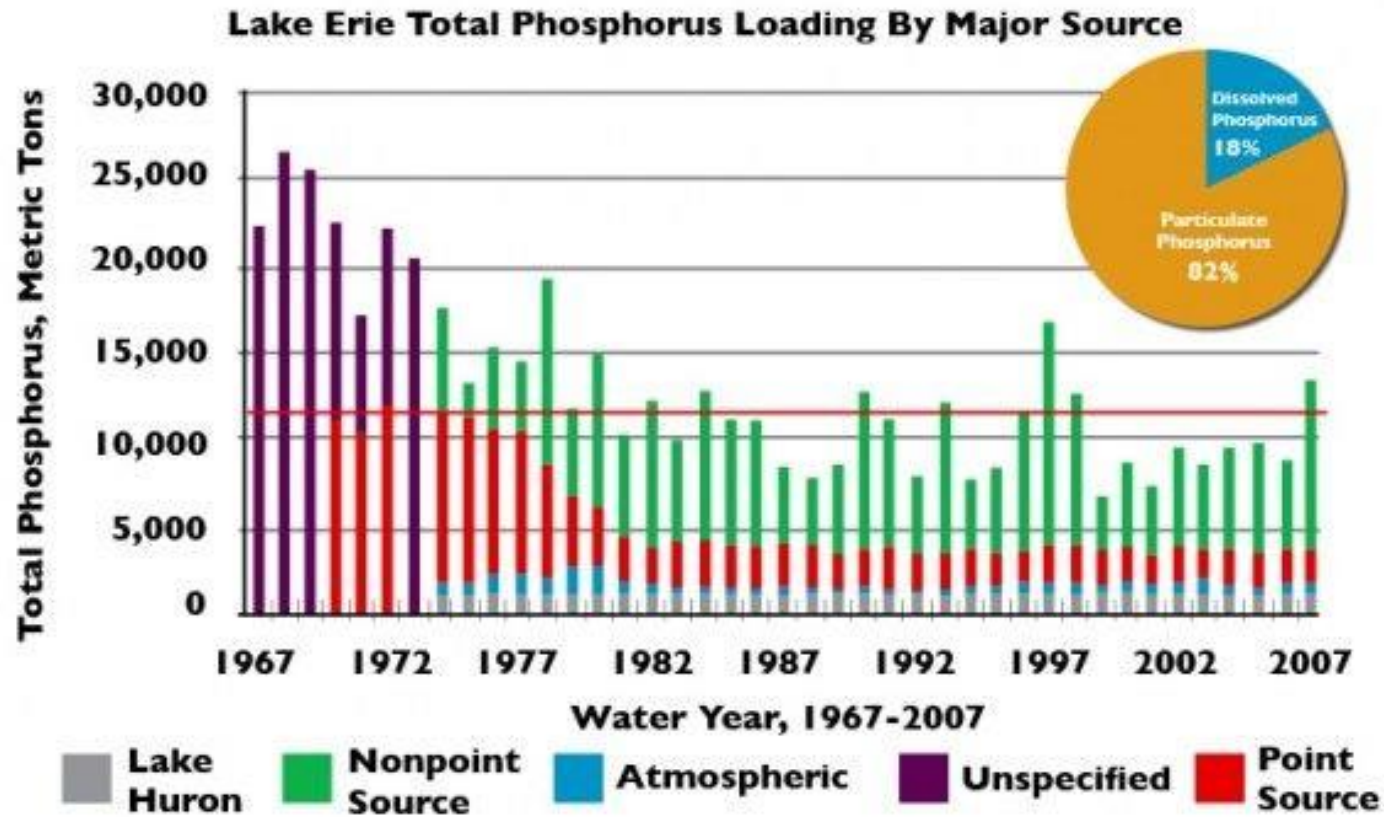
- Agricultural run-off, esp. Maumee River
- warmer water
- Heavy rains and snowmelt in the Spring
- zebra and quagga mussels
- Release of dissolved reactive phosphorus



Lake Erie and nearshore algae

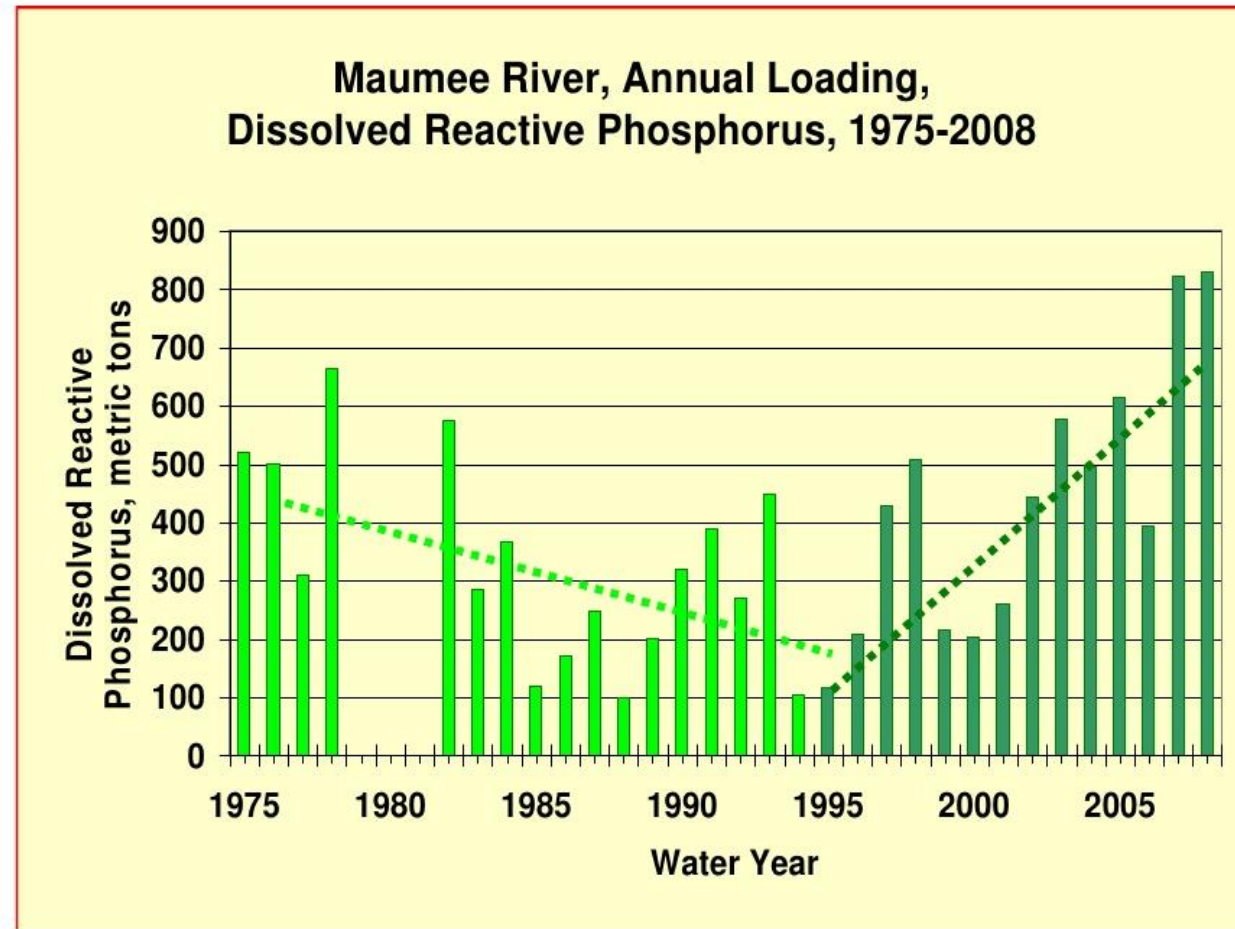


Lake Erie and Toxic Algae



Data from Rockwell & Dolan, Don Scavia, GESI, UofM

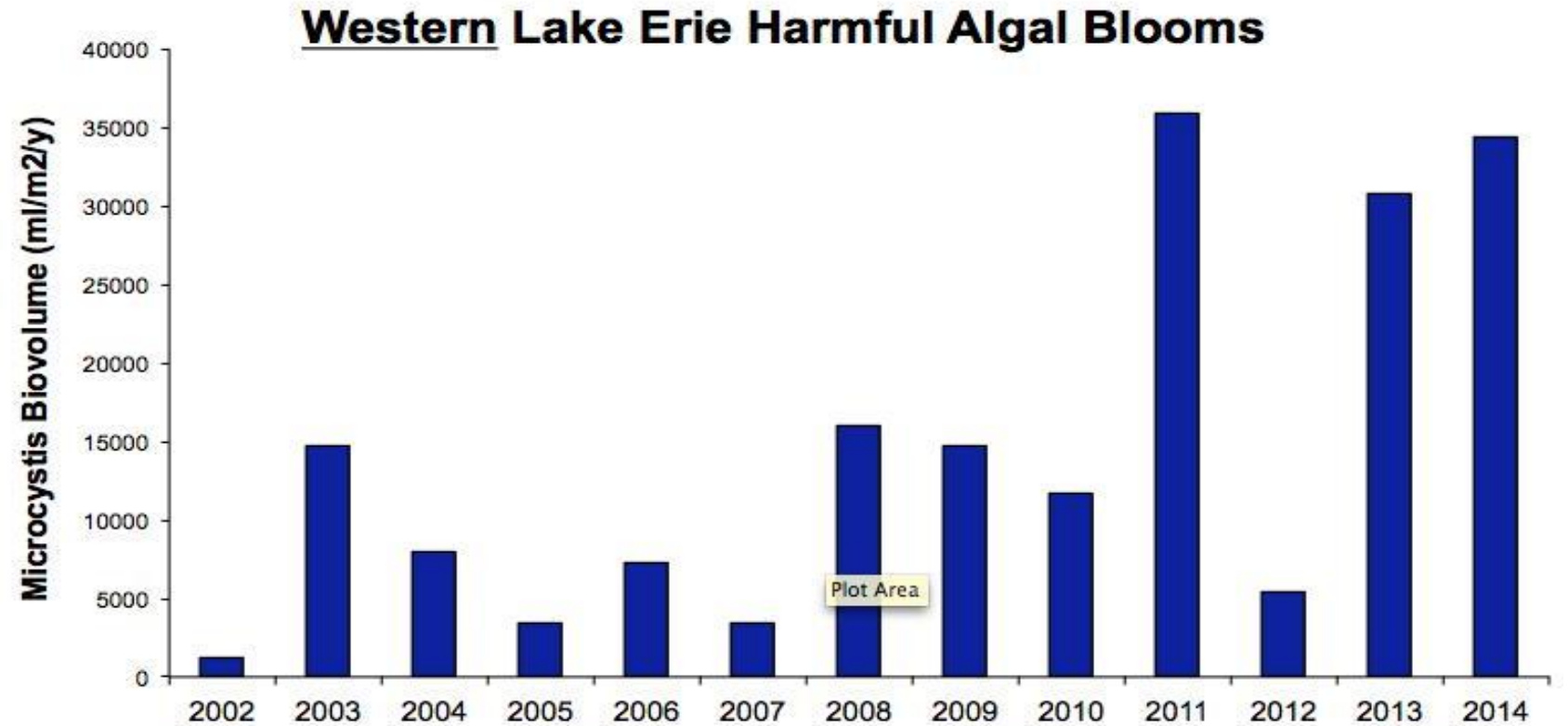
Lake Erie and Toxic Algae



Lake Erie and Toxic Algae



- Toledo water crisis 2013: toxic cyanobacteria detected in drinking water source for 400,000 people.



Binational Commitments



➤ 2012 GLWQA Annex 4

- Establish target for lakewide phosphorus in Lake Erie by 2016, prepare binational strategy and domestic action plans by 2018.
- Proposed targets released for public comment in 2015
- No deadline for attaining targets



PROPOSED Binational Phosphorus Loads Reduction Targets



Western Basin	Central Basin
40% reduction in Total Phosphorus entering the Western and Central Basins from the US and Canada, to achieve 6000 metric tons in the Central basin load	
40% reduction in Spring total and soluble reactive phosphorus loads from following watersheds where localized algae is a problem:	
<u>Western</u> Thames River Maumee River Raisin River Portage River Toussaint Creek Leamington tributaries	<u>Central</u> Sandusky River Huron River
40% reduction in Spring total on soluble reactive phosphorus loads from the Maumee River	

Regional Commitments



- Western Lake Erie Collaborative on Phosphorus Reduction
 - Signed June 2015 by States of Ohio and Michigan, Province of Ontario
 - 20% phosphorus reduction 'aspirational' target by 2020
 - 40% target by 2025



Ontario Commitments



➤ **Great Lakes Protection Act, 2015**

- Passed December 2015
- Within 2 years, target for reducing algae blooms
- Ministerial authority to require Geographically Focused Initiatives to be developed
- Great Lakes Guardian Council, first meeting March 2016



Action on the ground



- Voluntary 4Rs certification in Ohio, 25% of farms certified
- Van Buren County, Michigan, drainage rates geared to measures to reduce sedimentation
- OFA and Cities Initiative phosphorus reduction strategy for farmland drainage

Great Lakes and St. Lawrence Cities Initiative

To learn more about the Cities Initiative, visit our website at :

www.glslcities.org

