

A stylized map of the Great Lakes region, including Lake Superior, Lake Michigan, Lake Huron, Lake Erie, and Lake Ontario, rendered in a light tan color against a dark blue background. The map shows the outlines of the lakes and the surrounding landmasses.

GLRI efforts to address HABs in the Great Lakes

Inland HABS Discussion Group Webinar
December 10, 2014



Great Lakes Restoration Initiative (GLRI)

- Obama Administration Initiative

- FY10: \$475 million
- FY11: \$300 million
- FY12: \$300 million
- FY13: \$284 million
- FY14: \$300 million
- FY15: \$275 million*



GLRI Action Plan I Focus Areas



1. Toxics Substances and Areas of Concern
2. Invasive Species
3. **Nearshore Health and Nonpoint Source Pollution**
4. Habitat and Wildlife Protection and Restoration
5. Accountability, Education, Monitoring, Evaluation, Communication and Partnerships



PRIORITY WATERSHEDS



**US Army Corps
of Engineers**



County Conservation Departments

Area Conservation Groups

Participating Producers

CONSERVATION + MONITORING

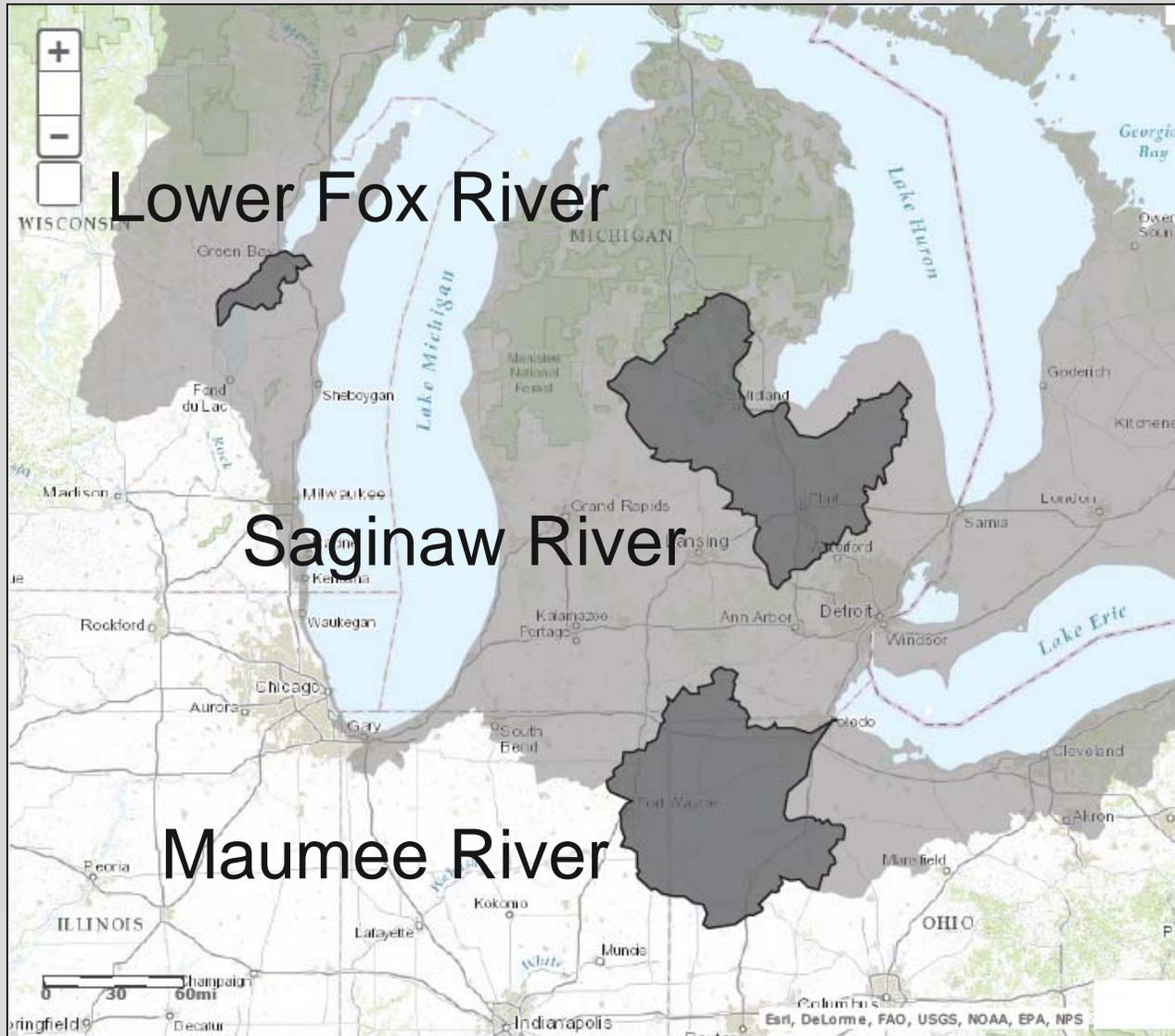


Original Priority Watershed Work Group Charges (August 2011)

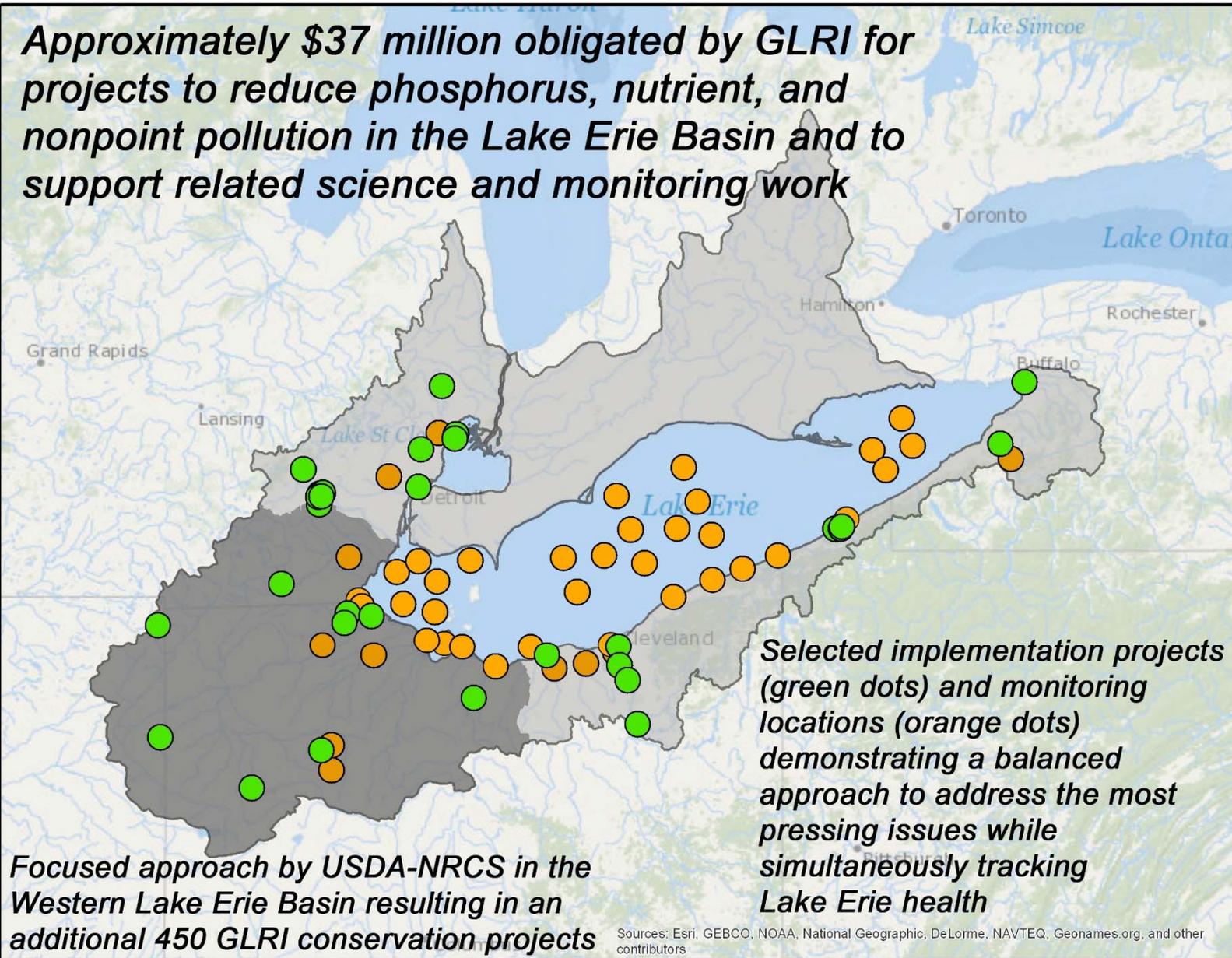
- understand from the best available science where most of the agricultural sources of phosphorus are coming from at the most granular scale possible;
- develop a list of priority sub-watersheds and inter-agency efforts for reducing phosphorus in those sub-watersheds;
- recommend GLRI funding needed for implementing the inter-agency efforts
- direct efforts to implement efforts
- ***evaluate the effectiveness of efforts so that efforts can be re-calibrated in the future***



GLRI Priority Watersheds



Approximately \$37 million obligated by GLRI for projects to reduce phosphorus, nutrient, and nonpoint pollution in the Lake Erie Basin and to support related science and monitoring work



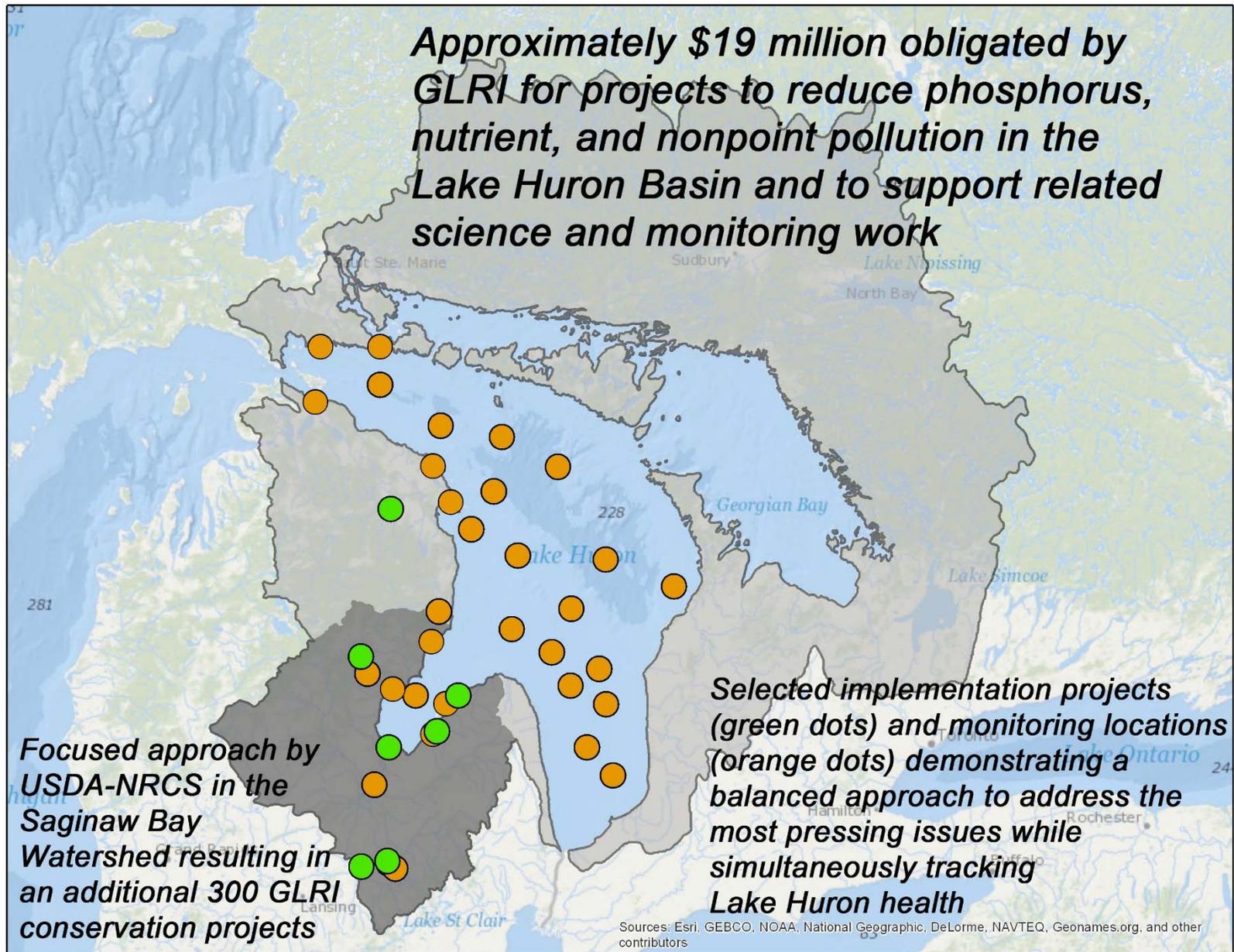
Focused approach by USDA-NRCS in the Western Lake Erie Basin resulting in an additional 450 GLRI conservation projects

Selected implementation projects (green dots) and monitoring locations (orange dots) demonstrating a balanced approach to address the most pressing issues while simultaneously tracking Lake Erie health

Sources: Esri, GEBCO, NOAA, National Geographic, DeLorme, NAVTEQ, Geonames.org, and other contributors



Approximately \$19 million obligated by GLRI for projects to reduce phosphorus, nutrient, and nonpoint pollution in the Lake Huron Basin and to support related science and monitoring work

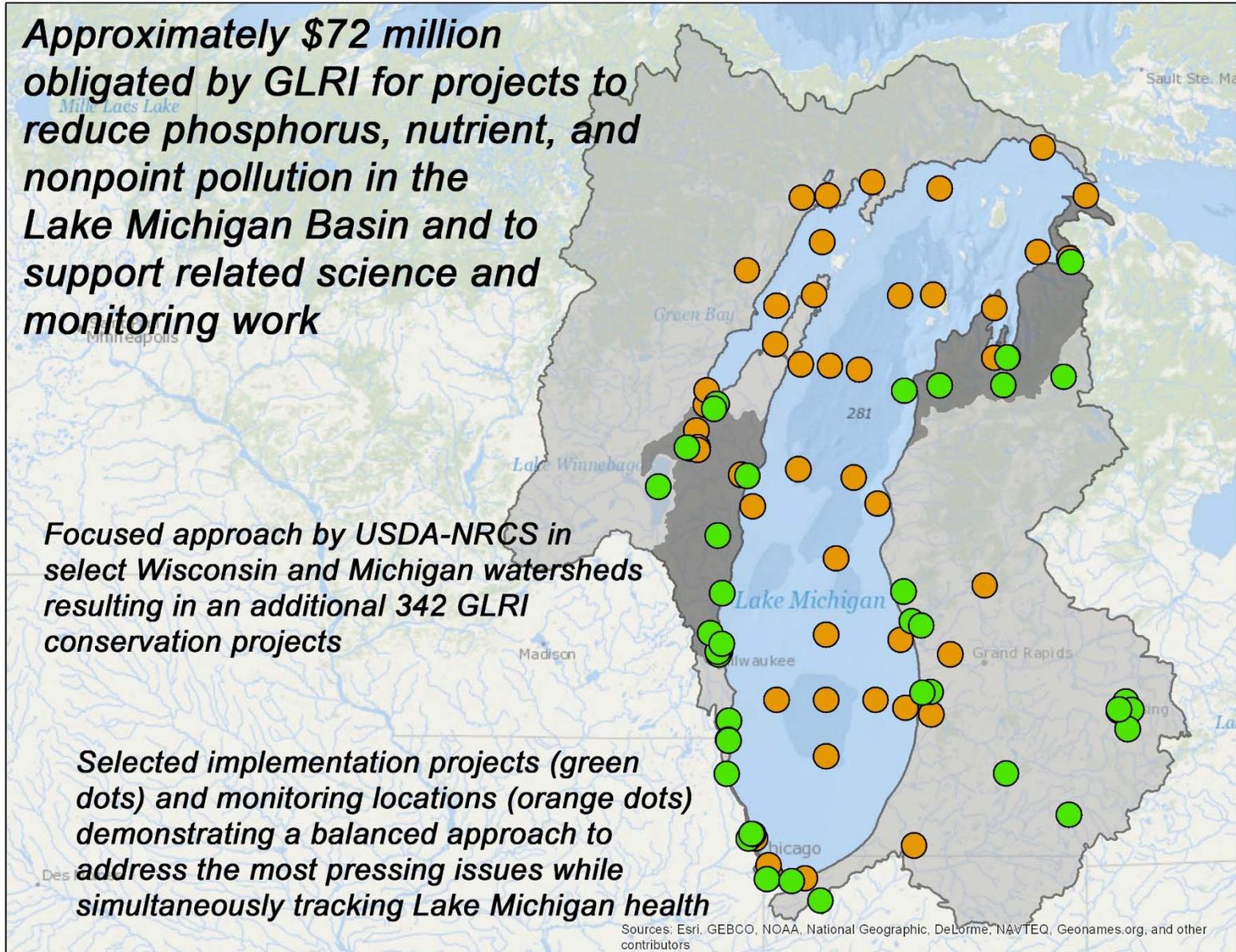


Approximately \$72 million obligated by GLRI for projects to reduce phosphorus, nutrient, and nonpoint pollution in the Lake Michigan Basin and to support related science and monitoring work

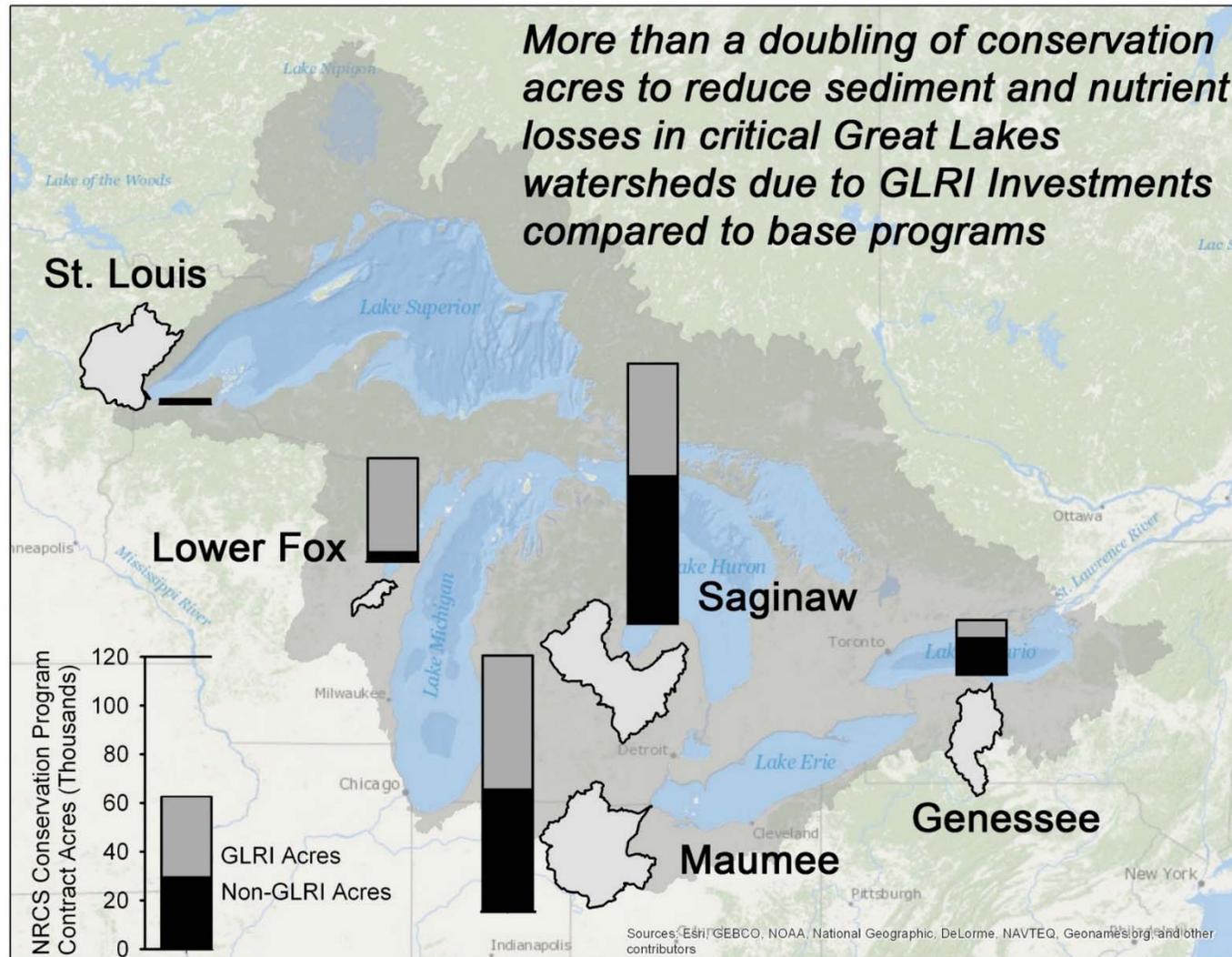
Focused approach by USDA-NRCS in select Wisconsin and Michigan watersheds resulting in an additional 342 GLRI conservation projects

Selected implementation projects (green dots) and monitoring locations (orange dots) demonstrating a balanced approach to address the most pressing issues while simultaneously tracking Lake Michigan health

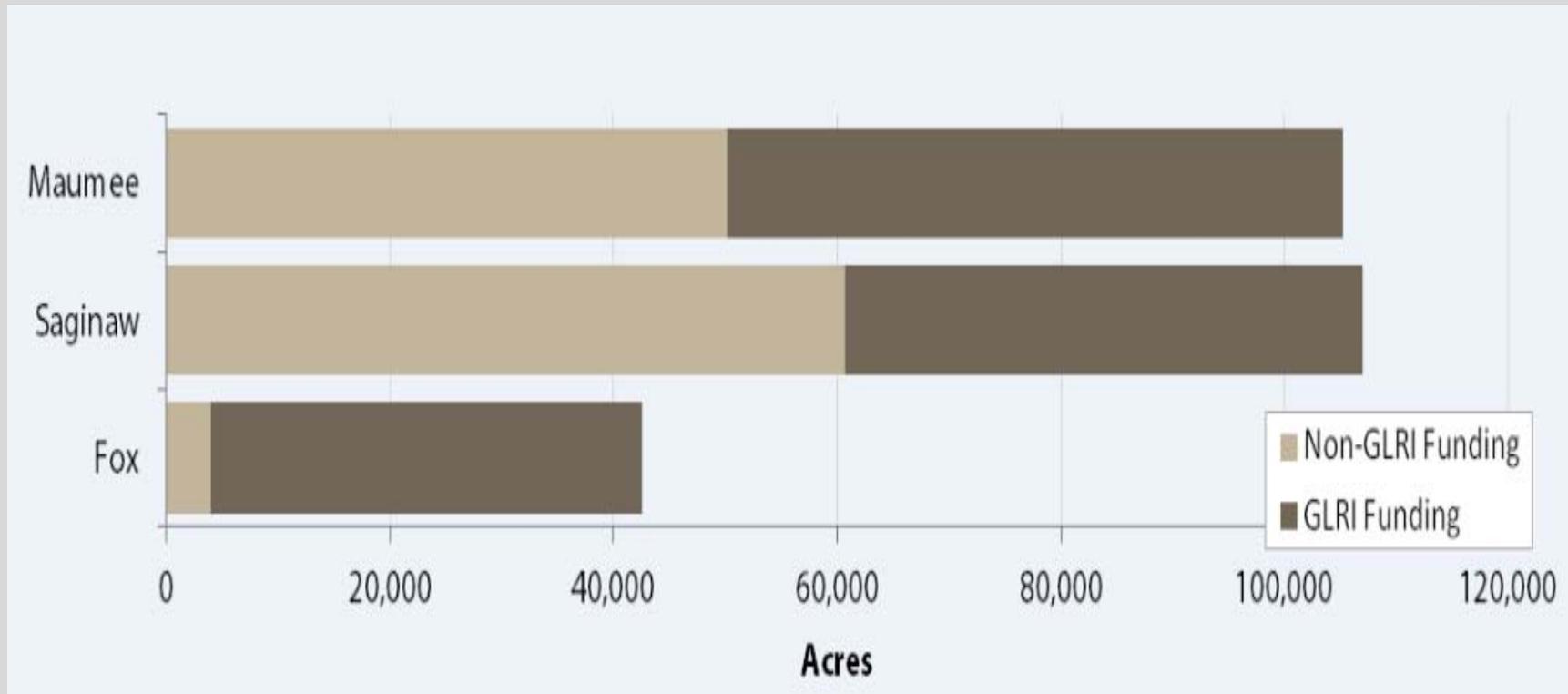
Sources: Esri, GEBCO, NOAA, National Geographic, DeLorme, NAVTEQ, Geonames.org, and other contributors



GLRI Priority Watershed Effort: Results FY2010-2013



NRCS FY10-13 Accomplishments GLRI Priority Watersheds





GLRI Supports a Diversity of Voluntary, Incentive-Based, Regulatory, & Innovative Approaches

- Maumee
 - NRCS (*Voluntary/Incentive* – Farm Bill Programs)
 - Ohio EPA, ODNR, ODA (*Target Setting* – Lake Erie Phosphorus Targets Recommended Through Ohio Phosphorus Task Force II)
 - Ohio EPA (*Regulatory/Voluntary* – TMDL Implementation Plan)
 - Ohio State Extension (*Innovative* - Training Workshops for Fertilizer Dealers)
 - The Nature Conservancy/ACOE (*Innovative* – Two-Stage Ditches)





USDA-NRCS
U.S. Department of Agriculture
Natural Resources Conservation Service



Conserving and Protecting
the Great Lakes Landscape

Great Lakes
RESTORATION
INITIATIVE



The USDA and other agencies provide and manage





Department of Agriculture
Department of Natural Resources
Environmental Protection Agency
Lake Erie Commission

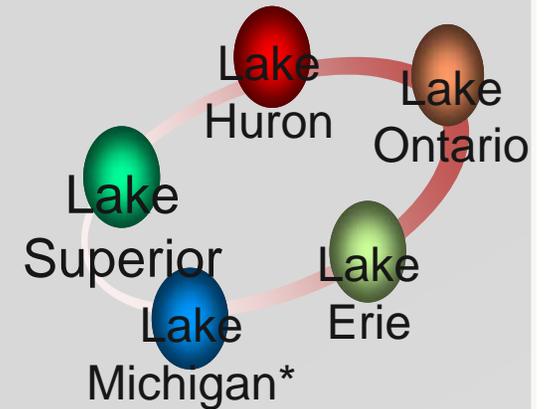
Ohio Lake Erie Phosphorus Task Force II Final Report



Final Report
November 2013



2014 Lake Erie CSMI



- Western Lake Erie Basin nutrient dynamics (Ohio Lake Erie Commission)
 - Quantify internal nutrient loads to the water column
 - Evaluate role of river hydrology and/or seasonality of P loads to HAB formation and dynamics
 - Develop a nutrient mass budget
- Huron-Erie corridor water quality and coastal condition monitoring (US EPA ORD)
 - US EPA’s National Coastal Condition Assessment pilot
 - Included sampling for microcystin



August 10, 2014

TOLEDO FREE PRESS



SPECIAL REPORT

WATERSHED MOMENT

Diving into the Lake Erie algae crisis
that shut off our water supply.

By Sarah Ottney and Danielle Stanton, **page 6**



10th Annual

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GLRI grants to Ohio, Michigan and Indiana to Target Harmful Algal Blooms in Lake Erie (\$8.6 M)

- Provide technical assistance and incentives to farmers in western Lake Erie watersheds to reduce phosphorus runoff that contributes to harmful algal blooms.
- Improve measurement of phosphorus loads in Lake Erie tributaries.



GLRI Action Plan II Principal Initiatives

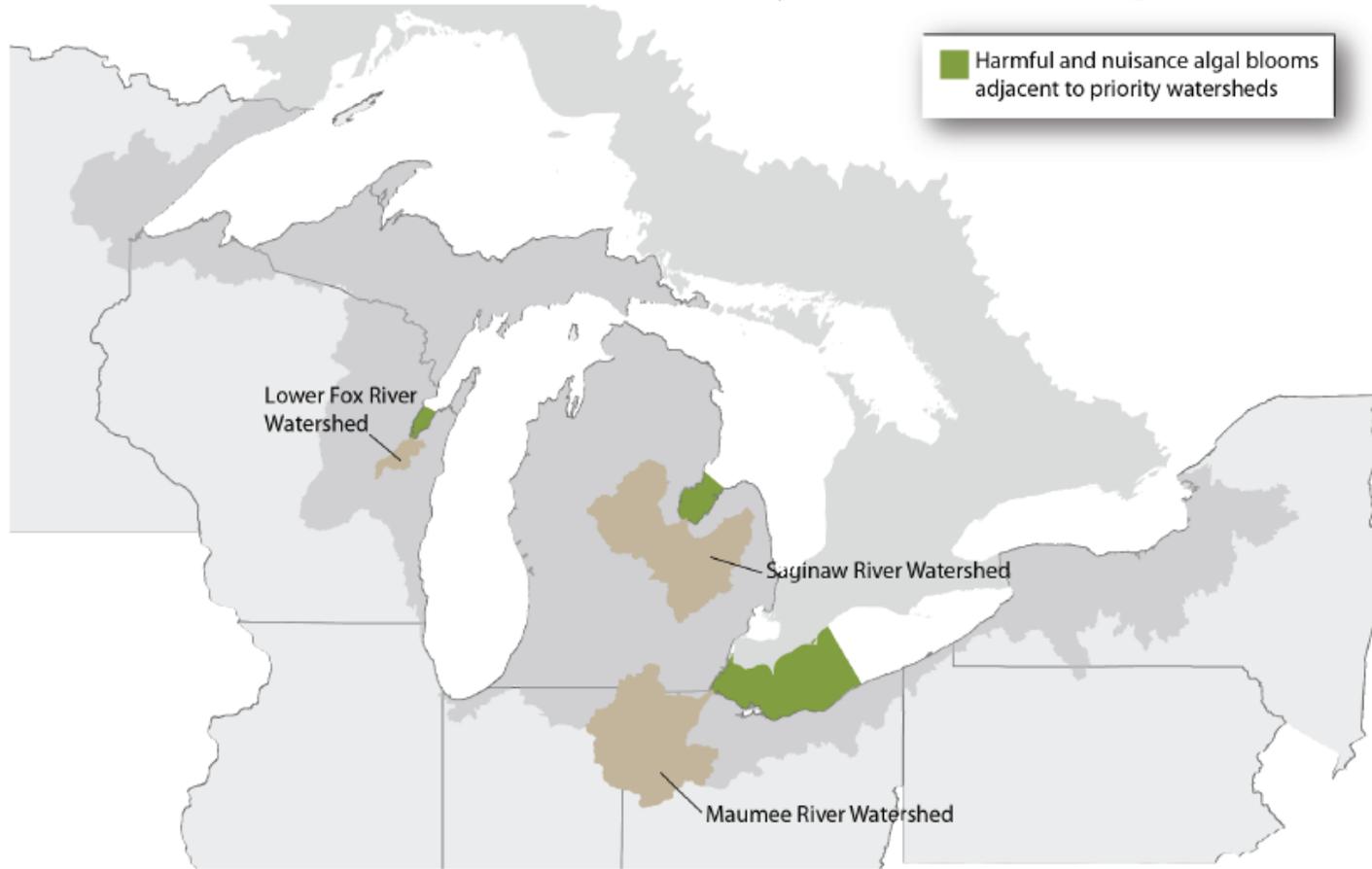


1. Toxic Substances and Areas of Concern
2. Invasive Species
- 3. Nonpoint Source Pollution Impacts on Nearshore Health**
4. Habitats and Species
5. Integrated Solutions to Cross-Cutting Issues



Objective I: Reduce nutrient loads from agricultural watersheds

Great Lakes Restoration Initiative Priority Watersheds During 2010-2014



Questions?

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