U.S. Fish & Wildlife Service Activities within the Maumee Area of Concern

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FWS Activities with the AOC

NRDA

Ottawa NRDA
Duck & Otter Creeks NRDA
University of Toledo
Swan Creek [GLRI]
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NRDA Basics

When hazardous substances enter the environment, fish, wildlife, and other natural resources can be injured. The Department of the Interior, along with State, Tribal and other Federal partners, act as "trustees" for these resources. Trustees seek to identify the natural resources injured and determine the extent of the injuries, recover damages from those responsible, plan and carry out restoration activities.

NRDA Basics

These efforts are possible under the Natural Resource Damage Assessment and Restoration Program, the goal of which is to restore natural resources injured by contamination.

The Natural Resource Damage Assessment and Restoration (NRDA) Process

1. **Determine injury through time to natural resources due to a spill of oil or release of hazardous substance(s)**

   Release → Injury

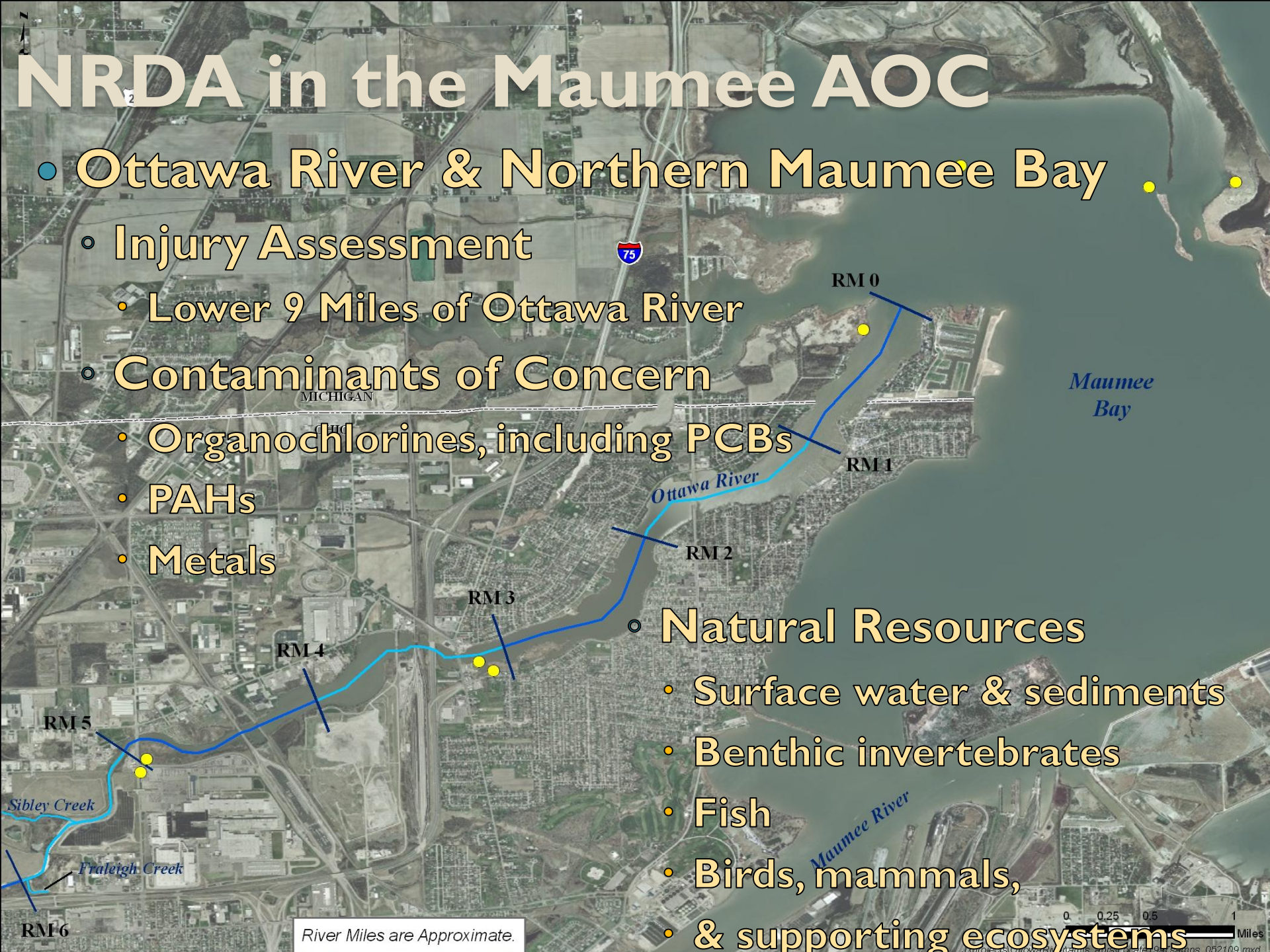
2. **Assess damages for injuries to recover and restore trust resources and their services**

   Injury → Damages

3. **Recover damages as $$$ or projects**

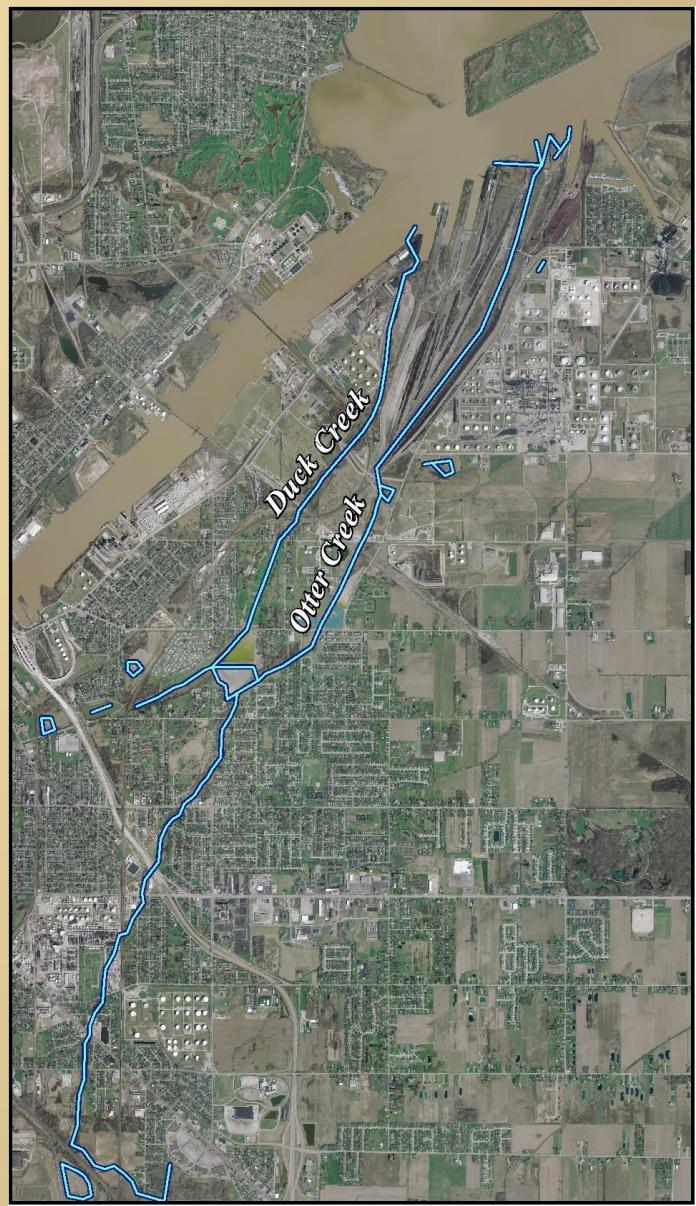
NRDA in the Maumee AOC

- Ottawa River & Northern Maumee Bay
  - Injury Assessment
    - Lower 9 Miles of Ottawa River
  - Contaminants of Concern
    - Organochlorines, including PCBs
    - PAHs
    - Metals
  - Natural Resources
    - Surface water & sediments
    - Benthic invertebrates
    - Fish
    - Birds, mammals,
    - & supporting ecosystems

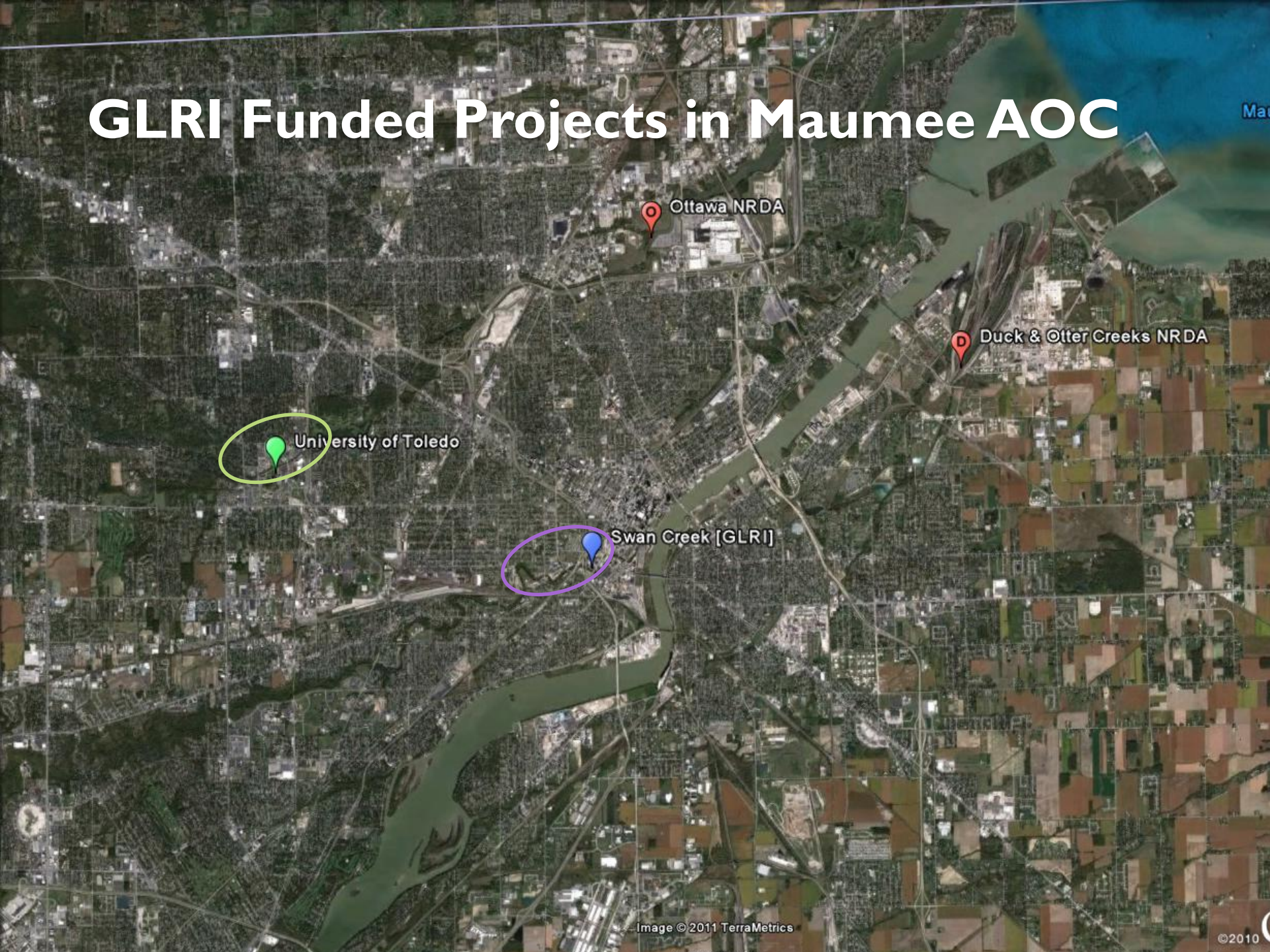


NRDA in the Maumee AOC

- Duck & Otter Creeks NRDA
  - Injury Assessment
    - Duck Creek & Otter Creek
  - Contaminants of Concern
    - PAHs
    - Organochlorines
    - Metals



GLRI Funded Projects in Maumee AOC



Funding Proposal for Maumee R. AOC

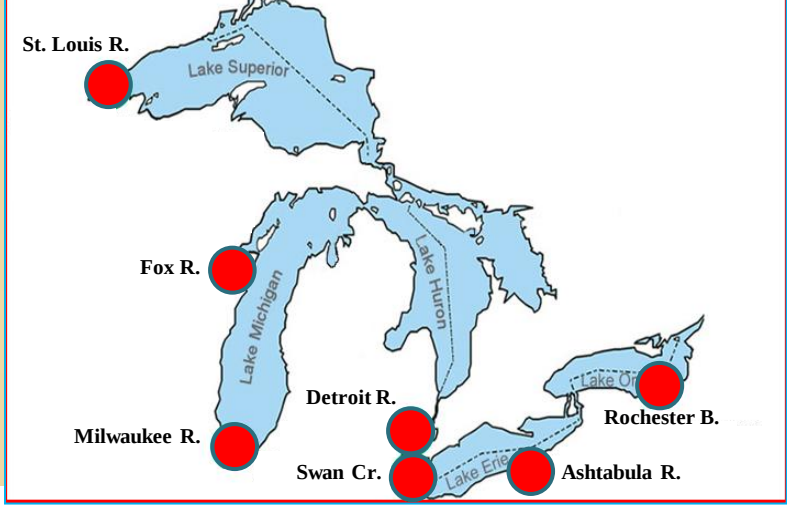
- *Stream restoration along the Ottawa R. on UT's main campus*
- *Enhance Ohio EPA 319 grant project*
- *Create an additional 1,900 ft. of contiguous habitat*
- *Requested $192,970*
- *Expect to know in the next couple weeks*

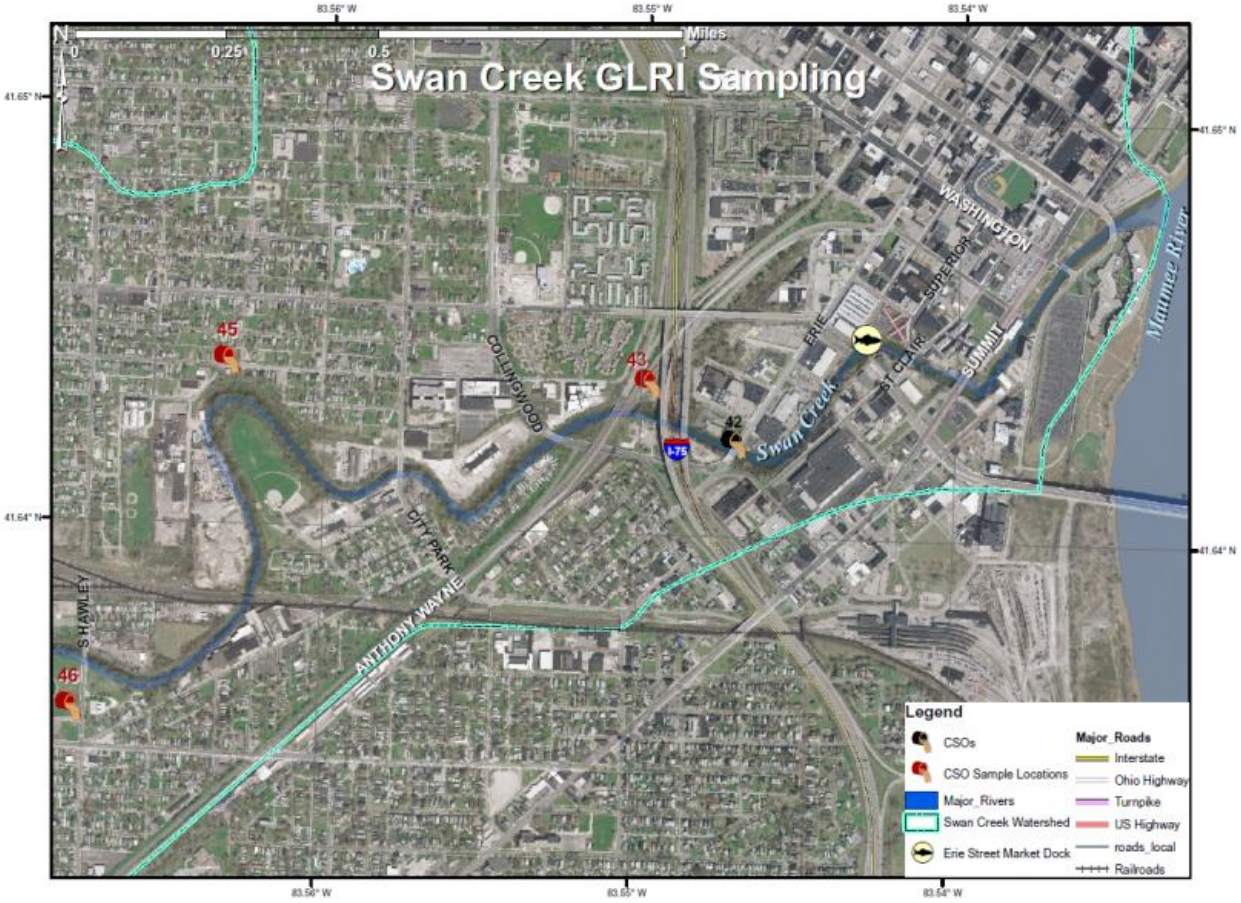
Contaminants of Emerging Concern

- *Substances, chemicals, or metabolites that are new or known with newly expanded distribution, altered release patterns, or newly detected presence that are potentially toxic*
- *Personal care products, steroids, hormones, prescription and non prescription drugs, plasticizers, pesticides, detergents*
- *Many of are unregulated or poorly regulated*
- *Endocrine disruptors that affect fish and wildlife development and reproduction*

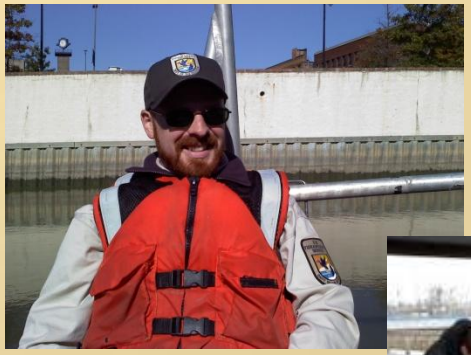
Project Locations

- *St. Louis River*
- *Milwaukee River*
- *Detroit River*
- *Swan Creek*
- *Rochester Bay*
- *Fox River*
- *Ashtabula River*





Objectives

- *Measure the concentration of up to 170 steroids, hormones, deodorizers, herbicides, disinfectants, prescription and non-prescription drugs in fish, water and sediments*
- *Evaluate the toxicity to fish and wildlife resources*
- *Relate environmental concentrations of emerging contaminants to toxicity values*
- *Evaluate the source, pathway, and effects of these contaminants*
- *Recommend controls/regulations or resource management actions to prevent or reduce adverse impacts to fish and wildlife resources in the future*

Thank you!