

SAGINAW RIVER/BAY AREA OF CONCERN OVERVIEW

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DEPARTMENT OF ENVIRONMENTAL QUALITY



MICHIGAN OFFICE OF THE GREAT LAKES

OUTLINE

- **Areas of Concern Program in General**
- **Michigan's Areas of Concern**
- **Saginaw River/Bay Area of Concern**
- **Program Comparison: Area of Concern vs. Superfund Site**
- **Rundown of Beneficial Use Impairments**
- **Role of Federal, State and Local Entities**

AREAS OF CONCERN IN A NUTSHELL

ORIGINALLY 43 IN THE UNITED STATES AND CANADA

Great Lakes Water Quality Agreement

*Protocol Amending the Agreement Between the United States of America
and Canada on Great Lakes Water Quality, 1978, as Amended
on October 16, 1983, and on November 18, 1987*

*Signed September 7, 2012
Entered into force February 12, 2013*

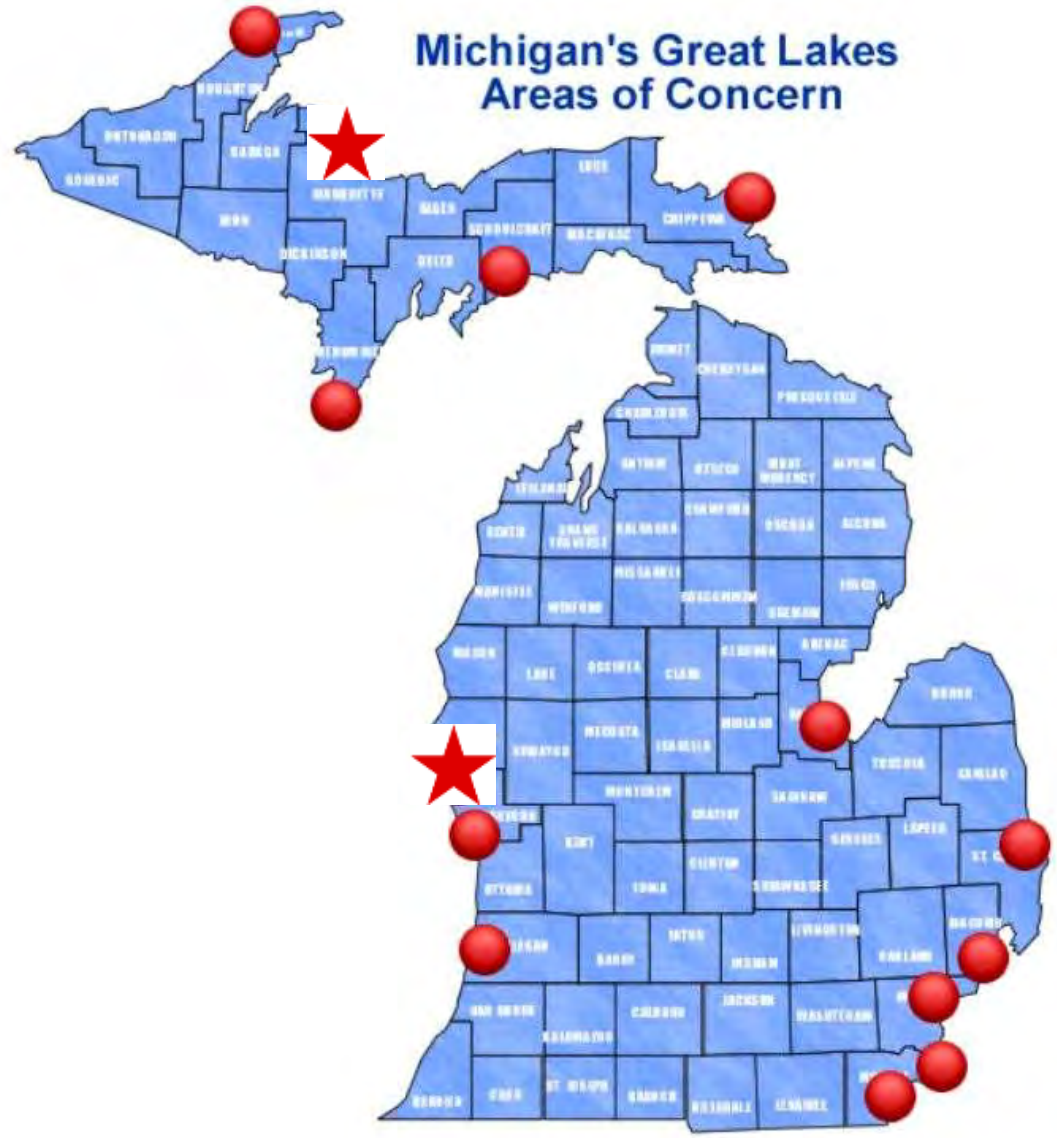


Canada

Canadian and U.S. Areas of Concern in the Great Lakes Basin



Michigan's Great Lakes Areas of Concern



Clinton River

Kalamazoo River

Muskegon Lake

Saginaw River/Bay

Torch Lake

Deer Lake

Manistique River

River Raisin

St. Clair River

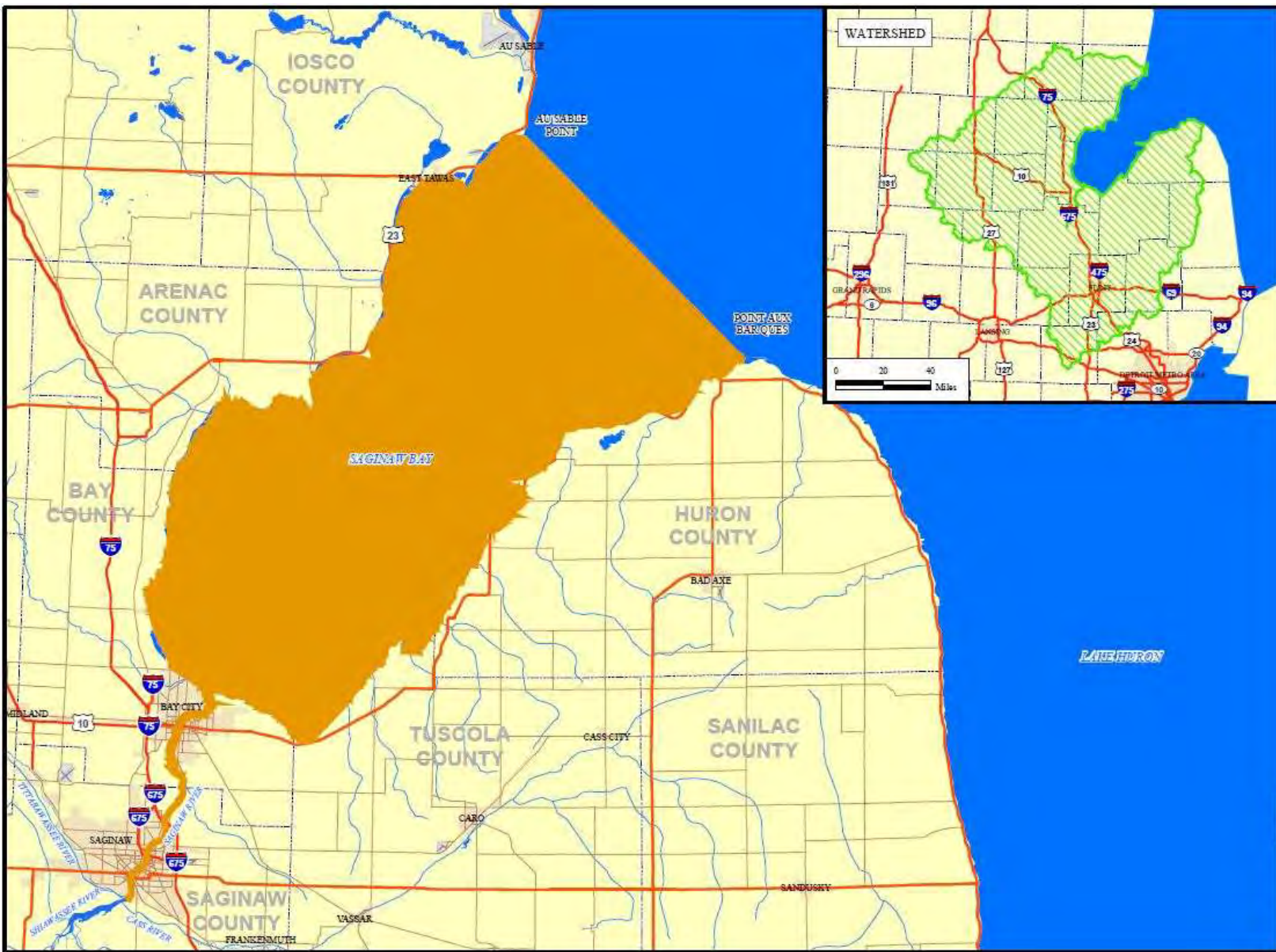
White Lake

Detroit River

Menominee River

Rouge River

St. Marys River



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LEGEND

- COUNTY BOUNDARY
- MAJOR ROADS
- SURFACE WATER
- URBAN AREAS
- AREA OF CONCERN
- WATERSHED

SOURCE: MODIFIED FROM THE MICHIGAN DEPARTMENT OF NATURAL RESOURCES, 1988; THE MICHIGAN CENTERS FOR GEOGRAPHIC INFORMATION, DEPARTMENT OF INFORMATION TECHNOLOGY, 2004, AND ERII, 2005





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Miles

**SAGINAW RIVER AND BAY, MICHIGAN
AREA OF CONCERN**

Great Lakes National Program Office

Appendix C to the Settlement Agreement

Legend

-  Dow Hazardous Waste Facility
-  Approximate Floodplain by FEMA*
-  Other Waterbodies
-  Tittabawassee River, Saginaw River and Saginaw Bay

Notes:

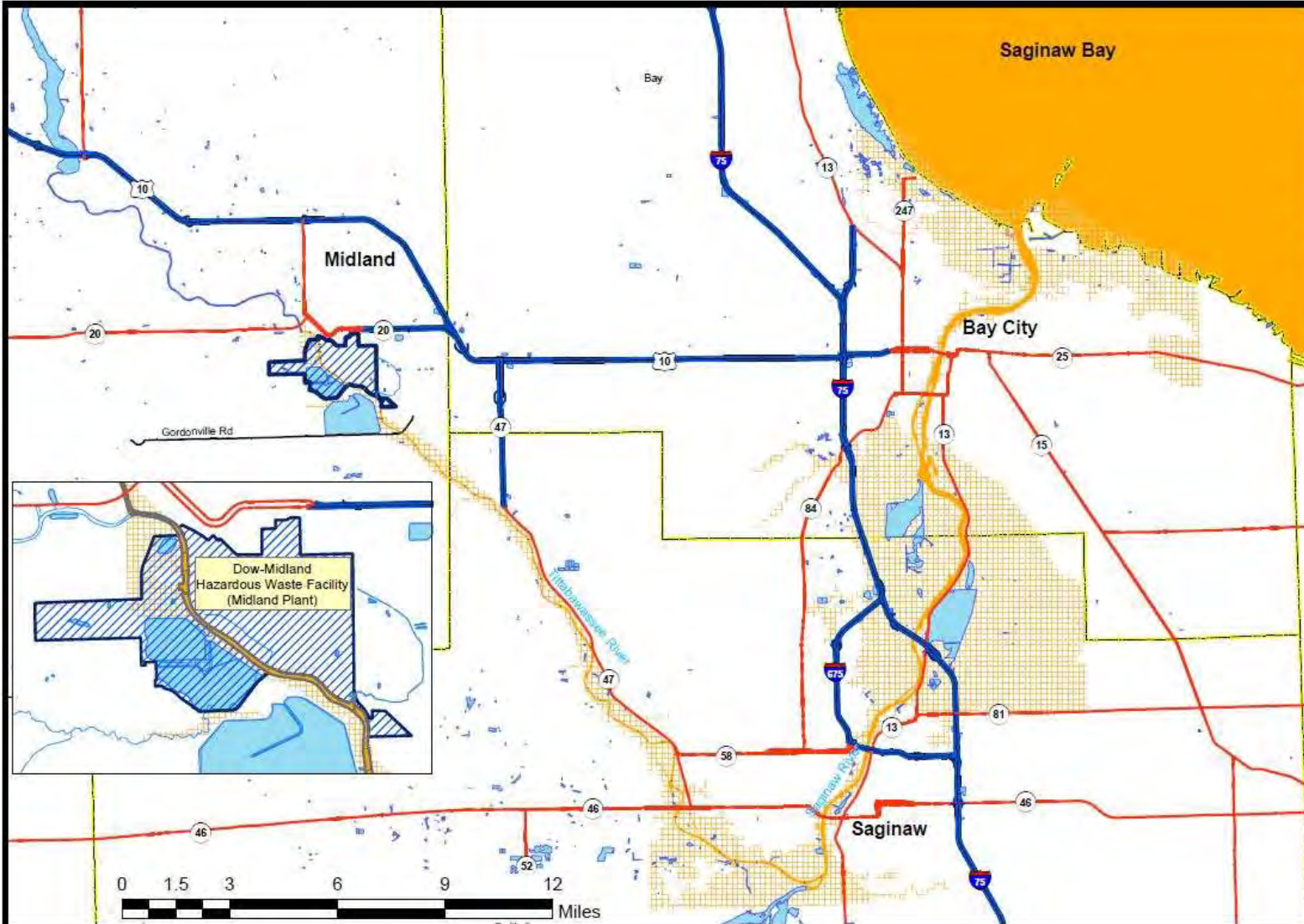
- 1) "Site" is defined in paragraph 12(aa.) of the AOC.
- 2) The depicted approximate floodplains represent the extended floodplain as identified by FEMA. As Work is conducted pursuant to this Settlement Agreement, the floodplain areas that are the subject of the remedial investigation, feasibility study, and response design will be further refined to add, or eliminate, floodplain locations based on where hazardous substances, pollutants, or contaminants from the Midland Plant have come to be located.

* Screen Digitized from Federal Emergency Management Agency National Flood Insurance Program Flood Insurance Rate Maps.





 Hazardous Waste Section
 Technical Support Unit
Map drawn September 21, 2008 by DEQ



PROGRAM COMPARISON

AREA OF CONCERN

- **Non Regulatory**
- **Boundaries Include Saginaw River and Bay**
- **Defined by Beneficial Use Impairments**
- **Success is Restoration of Beneficial Uses**

SUPERFUND

- **Regulatory**
- **Boundaries Include 24 miles of the Tittabawassee River, the Saginaw River and part of Sag Bay, plus floodplains.**
- **Defined by Contaminants**

Beneficial Use Impairments

1. Restrictions on Fish and Wildlife Consumption
2. Bird or Animal Deformities or Reproductive Problems
3. Degradation of Benthos
4. Restrictions on Dredging Activities
5. Eutrophication or Undesirable Algae
6. Beach Closings
7. Degradation of Aesthetics
8. Degradation of Phytoplankton or Zooplankton Populations
9. Degradation of Fish and Wildlife Populations
10. Loss of Fish and Wildlife Habitat (removed 2014)
11. Tainting of Fish and Wildlife Flavor (removed 2008)
12. Restrictions on Drinking Water Consumption or Taste and Odor Problems (removed 2008)

ROLE OF US EPA

- Party to the Great Lakes Water Quality Agreement, along with Canada
- Provides Capacity Funding to States
- Administers Much of Great Lakes Restoration Initiative Funding
- Reviews and Approves BUI Removals and AOC Delistings
- Partners in almost all AOC activities
- Much more...

ROLE OF MICHIGAN'S OFFICE OF THE GREAT LAKES

- Implements AOC Program in Michigan
- Develops Restoration Criteria
- Drafts Remedial Action Plans with input from PACs
- Writes BUI Removal Documentation with input from PACs
- Leads on AOC Delisting Documents with input from PACs
- Passes Federal Funding to Local PACs
- Much more...

ROLE OF THE PARTNERSHIP FOR SAGINAW BAY WATERSHED AS LOCAL PUBLIC ADVISORY COUNCIL

- Advocate for and Represent the Interests of AOC Communities
- Advise the State and Federal Agencies on Restoration Goals
- Assist in the Development of Restoration Criteria
- Identify Projects/Actions Needed to Achieve Restoration
- Facilitate Public Involvement in Cleanup Efforts
- Engage with the Statewide Public Advisory Council
- Much more...

QUESTIONS, COMMENTS?

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