

Maumee AOC Advisory Committee Orientation

February 9, 2016



Legend

- Maumee AOC 2010
- Ohio HUC 10**
- 141000103 Ottawa River/Ten Mile Creek (Frontal Lake)
- 041000907 Upper Swan Creek
- 041000908 Lower Swan Creek
- 041000909 Lower Maumee Tributaries (Grassy Creek)
- 041001007 Lake Erie Tributaries (Cedar Creek)
- 041001008 Toussaint River/Creek

Map Created By
Matthew Horvat

Ohio Environmental Protection Agency

Maumee RAP
PARTNERING FOR CLEAN STREAMS

Partners for Clean Streams

WELCOME to the MAAC!



- Roles & Responsibilities
 - Federal Role
 - State Approach and Roles
 - Facilitating Organization
 - MAAC Structure and Function
- AOC Program Overview
 - Agreements, Designations, Watersheds
- BUI Restoration Targets
 - BUI Targets, Removal and Status
- Data Management and Delisting System (DMDS)
 - Tracking Projects, Data and Status

Roles & Responsibilities

I'm on the MAAC. Now what?!

US EPA Federal Coordinator



- US EPA is responsible for ensuring Remedial Action Plans (RAPs) are developed and implemented in 26 US AOCs, and in part for the 5 binational AOCs
- US EPA coordinates with the other federal agencies to achieve AOC project funding, support and restoration. Key agencies include:
 - US ACE
 - US FWS
 - NOAA
 - USGS
 - NRCS
- US EPA utilizes federal Task Force Leaders (TFLs)
 - Maumee TFL: T. Kevin O'Donnell
- US EPA has provide funding for Ohio EPAs RAP Coordinators, projects, and local support through capacity and project-specific grants/agreements
- US EPA charges the State of Ohio with implementation

Ohio's Approach to AOCs



- State of Ohio Framework document (Oct. 2014)
 - Guiding document for AOC structure in Ohio
 - Outlines expectations and responsibilities under AOC program
 - Coined the term “Facilitating Organizations” for the local non-profit or government agencies leading the AOC committees
 - Changed from “RAP” to “AOC” to better align strategic focus to a geographic area, rather than a “process or plan” as RAP implies
 - Defined expectations for local AOC Advisory Committees and Ohio EPA staff
 - epa.ohio.gov/dsw/lakeerie/index.aspx

Ohio EPA

District Coordinator



- Serves as OEPA representative and ex-officio member to the AOC Advisory Committee and subcommittees
- Coordinates with the AOC Facilitating Organization to track and report progress
- Provides oversight of the local AOC Facilitating Organization's Support Grant and assists with data/reports as required
- Provides technical assistance and facilitates development and implementation of restoration actions
- Evaluates BUI status and prepares BUI removal and delisting documents
- Provides quarterly progress reports to OEPA Central Office and serves as information clearinghouse for specific AOCs

Ohio EPA

AOC Program Coordinator



- Assists with development of program policies, procedures and annual priorities
- Serves as technical program coordinator and represents OEPA on federal and binational workgroups and committees
- Coordinates program activities with other state and federal agencies and serve as Lake Erie information clearinghouse
- Coordinates communication between District AOC Coordinators and insures consistent implementation of AOC program activities
- Oversees all AOC subgrants and coordinates with OEPA fiscal staff
- Provides program updates to management and prepares annual program report

Facilitating Organization



- Serves as secretariat and facilitator of the AOC Advisory Committee
- Works with OEPA and local community to develop and implement the habitat restoration plan
- Provides regular opportunities for public input and increases public involvement in AOC activities
- Encourages implementation of local management actions and assists local implementers
- Provides public information about the AOC and conducts outreach activities to increase public awareness
- Assists OEPA with the AOC annual report and maintains AOC-specific website & social media

Who is PCS?



- PCS is working toward clear, clean, and safe waters in Northwest Ohio and a community that takes an active role in that mission
- A key role for PCS is to sustain ongoing outreach, education, and community engagement in planning and partnership building, as well as identifying priority projects to support BUI removal
- PCS is also implementing projects supporting the restoration of beneficial uses and assists in planning future BUI removal projects
- PCS is focused on restoration of the Maumee AOC, as well as overall watershed improvement and engaging community support for continual care for the water quality of the region
- PCS has 1 full-time and 2 part-time staff

Local Advisory Committee



- Represents the voice of the AOC community
- Minimum of 8 voting members, with a max of 16, in 4 different stakeholder categories
- Holds quarterly public meetings and operates in compliance with Ohio ethics and sunshine laws
- Establishes and approves annual goals, objectives and work plans for subcommittees
- Provides advice and input to state and federal agencies
- Identifies strategic priorities and encourages completion of needed management actions
- Solicits public input and promotes community involvement

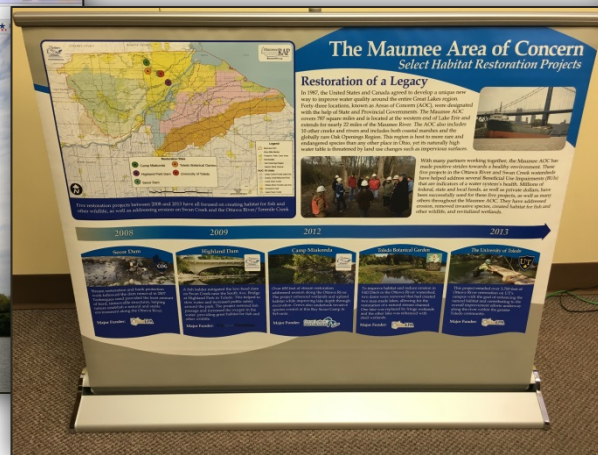
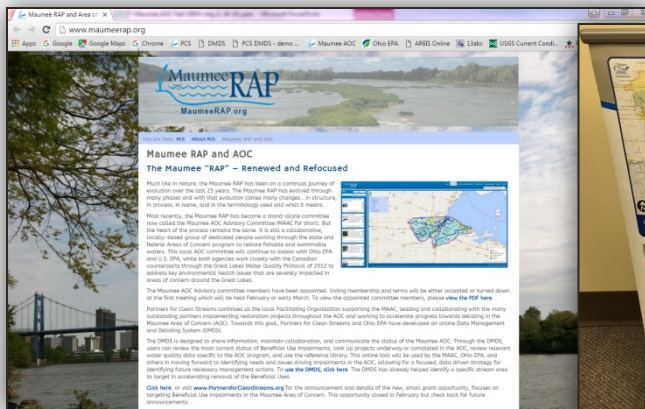
MAAC Structure & Function

- MAAC Operating Procedures
 - Membership requirements
 - Responsibilities
 - Operations
 - Voting
- Requirements of Members
 - MAAC Application with written & signed commitment
 - Conflict of Interest Agreement
 - Member Agreement
 - Ethics Training (within the next few months)
- Framework expectation for Outreach (through the FO)
 - Summits
 - At least one stream cleanup or similar outreach activity



Public Outreach/Involvement

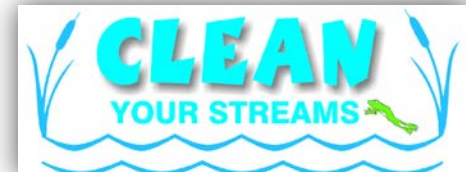
- AOC Summit held Each Year
 - 40 people attended Dec. 2015 event
- New MaumeeRAP.org website was launched; limited content now, launch of new site this winter/spring
- Maumee AOC social media following is growing on Facebook and Twitter
- New AOC display for use at fairs, festivals, and other events designed & printed



Public Outreach/Involvement

(continued)

- Annual awareness building, public involvement events:
 - 13th Annual Youth Patch Day (Mar)
 - 70 local youth participated
 - Storm Drain Marking (GYSD-Sept)
 - 166 volunteers marked 652 drains, and 1575 homes received flyers in 8 jurisdictions
 - 11th Annual Get the Lead Out (June-Aug)
 - 35 volunteers, 15 lbs. lead
 - 19th Annual Clean Your Streams (Sept)
 - 971 people, 13,528 lbs. of trash including 65 tires
 - CYS 365 (new program to address Aesthetics BUI)
 - first year, targeting problem sites, 84 volunteers, 800 lbs. of trash



Questions?

AOC Program Overview

Areas of Concern 101

Definitions

- **Area of Concern (AOC):** The GLWQA (Annex 2 of the 1987 Protocol) defines AOCs as "geographic areas that fail to meet the general or specific objectives of the agreement where such failure has caused or is likely to cause impairment of beneficial use of the area's ability to support aquatic life." More simply put, an AOC is *a location that has experienced severe environmental degradation.*
- **Remedial Action Plan (RAP):** Remedial action plans are developed for each of the AOCs to address impairments to any one of 14 beneficial uses associated with these areas. RAPs are *developed and implemented through an ecosystem based, multi-media approach* for assessing and remediating impaired uses. A RAP is developed in three stages:
 - Stage I identifies and assesses use impairments, and identifies the sources of the stresses from all media in the AOC;
 - Stage II identifies proposed remedial actions and their method of implementation; and
 - Stage III documents evidence that uses have been restored.

It is important to note that, in practice, these stages often overlap, and that the RAPs often become iterative documents, representing the current state of knowledge, planning and remedial activity in the AOC.

Definitions *(continued)*

- **Beneficial Use Impairment (BUI):** A beneficial use impairment is a *reduction of the chemical, physical, or biological integrity of the waters of an Area of Concern* sufficient to cause one of fourteen impairments identified in the Great Lakes Water Quality Agreement.
- **Hydrologic Unit Code (HUC):** The *United States is divided into successively smaller hydrologic units*. The hydrologic units are arranged or *nested within each other*, from the largest geographic area (regions) to the smallest geographic area (cataloging units). Each hydrologic unit is identified by a unique hydrologic unit code (HUC) consisting of two to twelve digits.
- **Water Quality Standards (WQS):** The State of Ohio has established Water Quality Standards. These standards represent *a level of water quality that will support the goal of "swimmable/fishable" waters*. Water quality standards are ambient standards as opposed to discharge-type standards.

International Restoration through Local Implementation

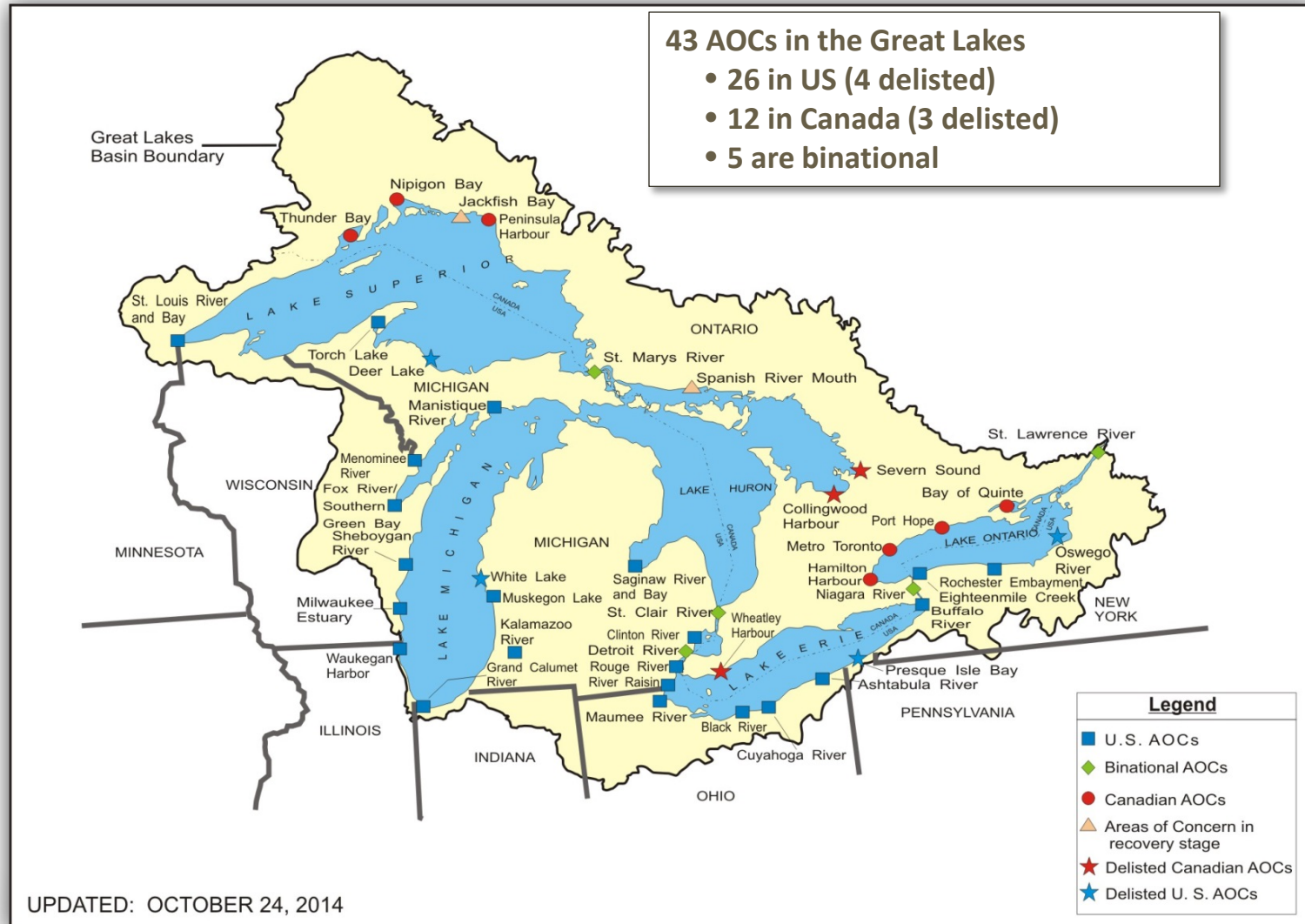
The ***Great Lakes Water Quality Agreement (GLWQA)*** addresses critical environmental health issues in the Great Lakes region and is a model of binational cooperation to protect water quality. The United States and Canada initially signed the Agreement in 1972, updated it in 1987, and last amended it on Sept. 7, 2012.

The 2012 Amendment retained the overall purpose of the Agreement, which is "to restore and maintain the chemical, physical and biological integrity of the waters of the Great Lakes" and the portion of the St. Lawrence River that includes the Canada-United States border.

GLWQA – Annex 1

- AOCs are addressed under Annex 1
- Goal of the AOC Program: to restore the 43 Great Lakes AOCs based on an ecosystem approach which considers all pollution sources and their impacts
- ***Non-regulatory, voluntary*** program
- In Ohio, restoration of an AOC does not mean achieving state WQS
 - BUI restoration will improve the AOC to an “average” condition, and that full restoration of the ecosystem will be achieved through “Life after Delisting”
 - Full restoration of ecosystem services and attainment of WQS is the ultimate goal of Ohio EPA. Ohio EPA envisions the use of non-AOC programs and funding to complete the restoration effort

Great Lakes Areas of Concern



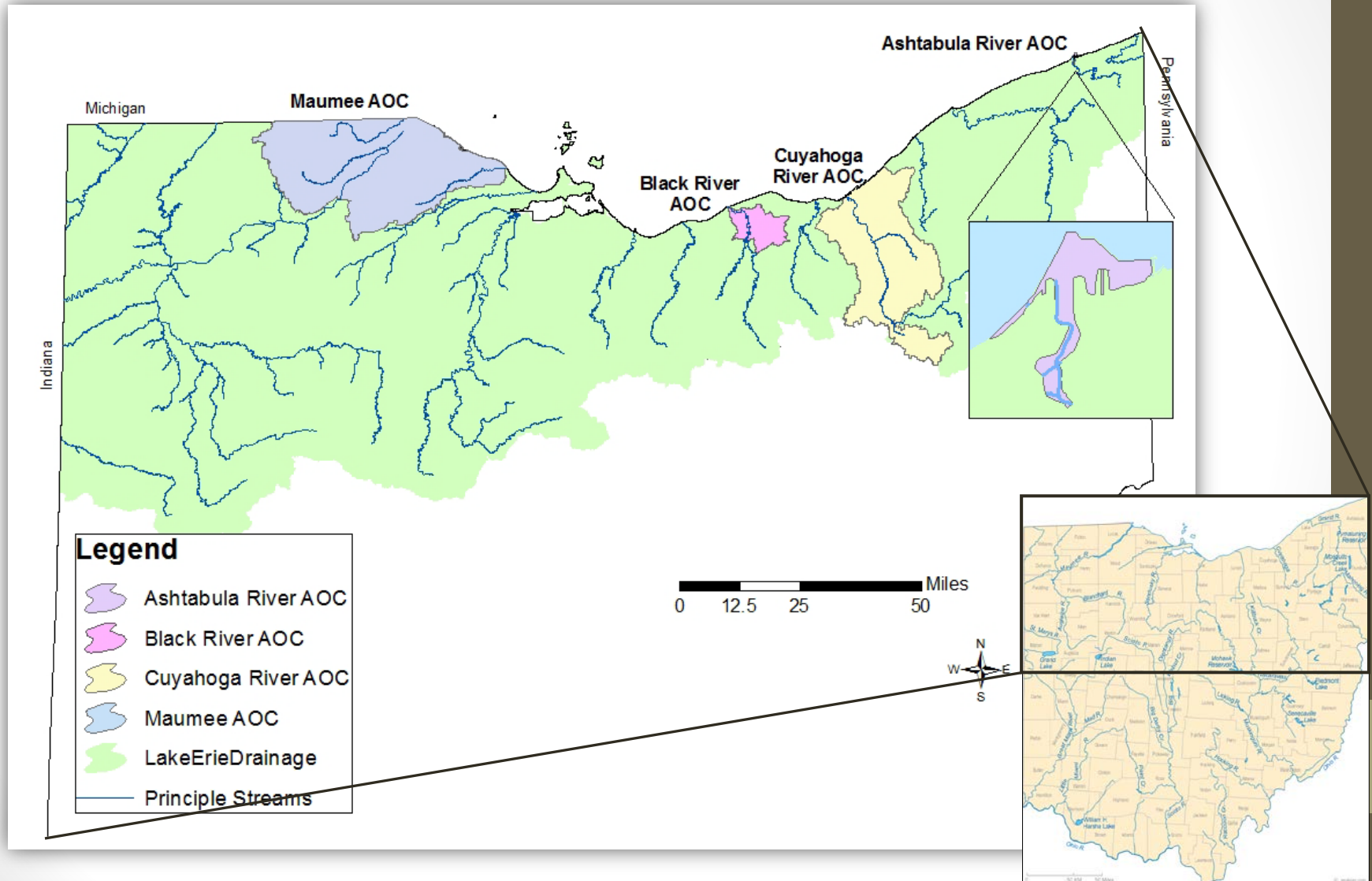
UPDATED: OCTOBER 24, 2014

Ohio EPA and AOCs



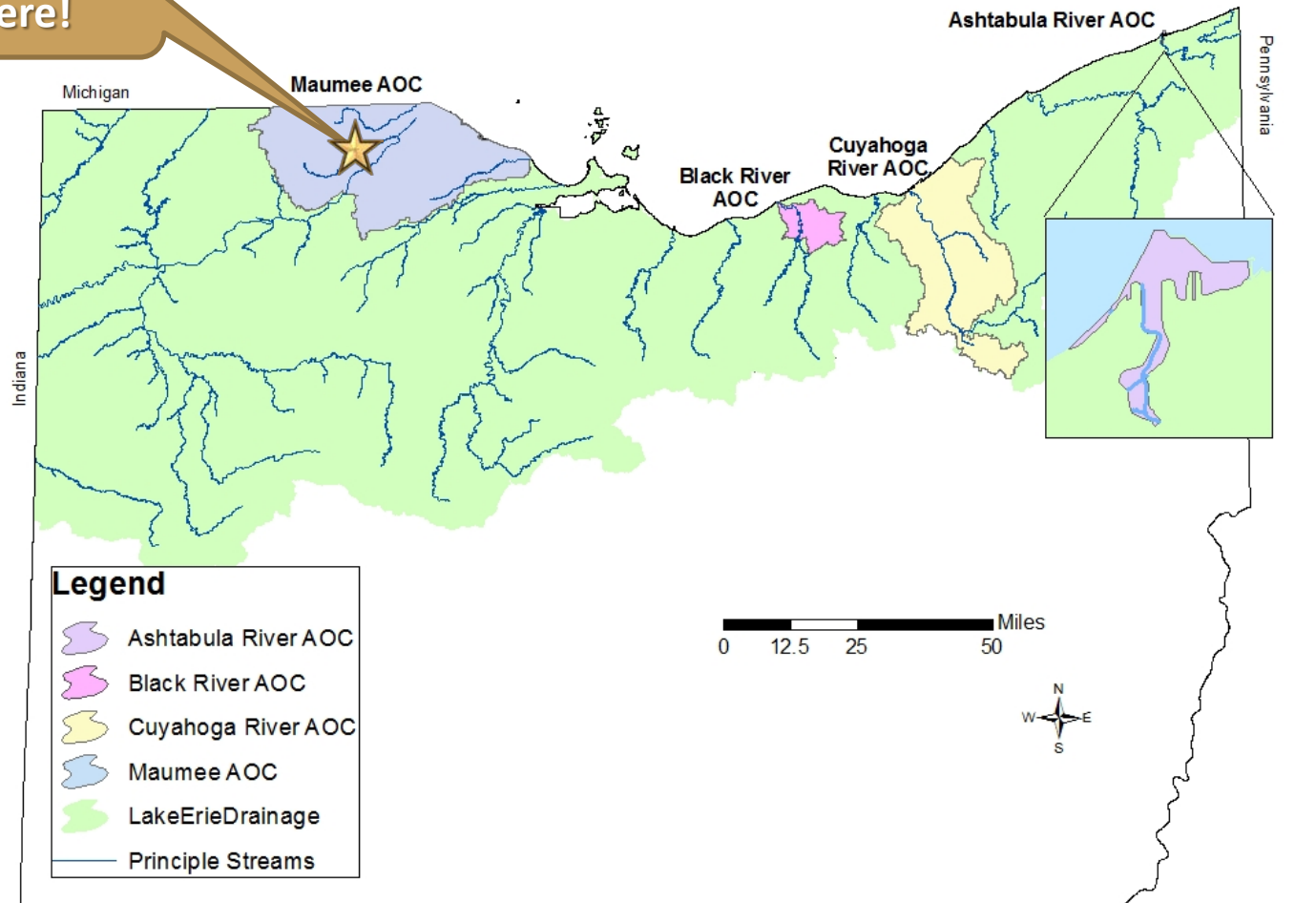
- Ohio EPA is responsible for development of Remedial Action Plans (aka Management Action List) and their implementation in Ohio's Areas of Concern.
- There are 4 AOC's in Ohio
 - Ashtabula River
 - Cuyahoga River
 - Black River
 - Maumee River
- These four AOCs were identified as Ohio's most polluted and environmentally impacted rivers which empty into Lake Erie.

Ohio's Areas of Concern



Ohio's Areas of Concern

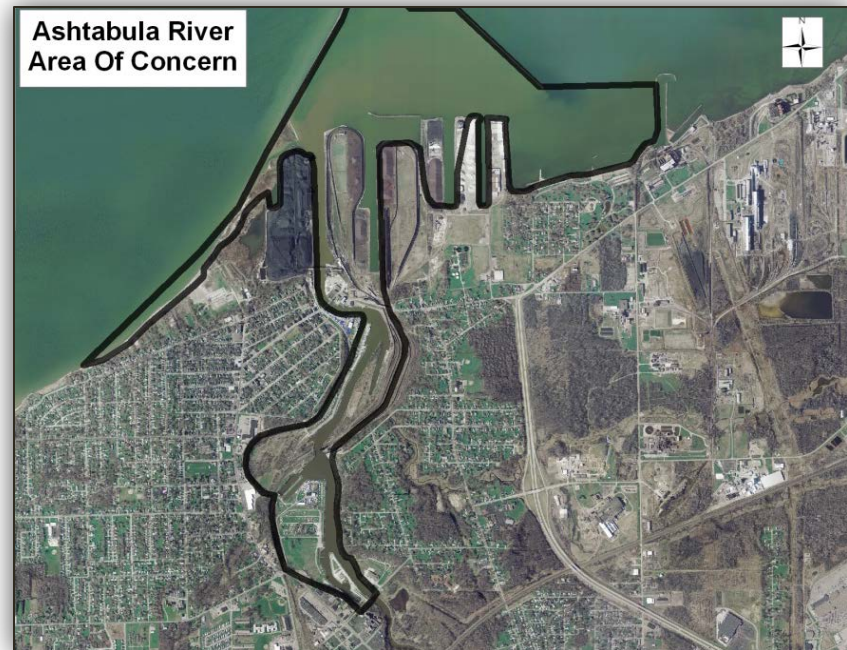
You Are Here!



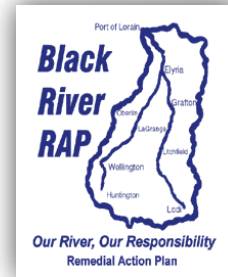
Ashtabula River AOC



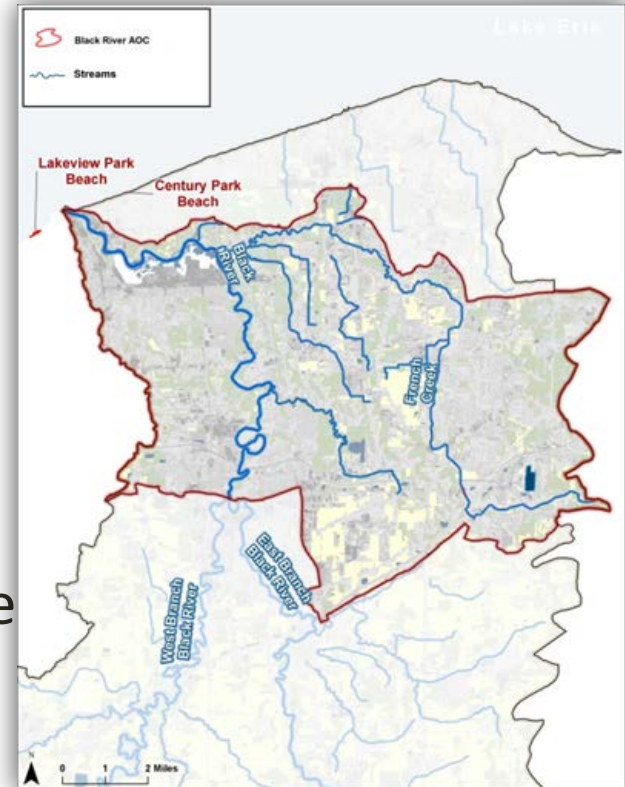
- Northeast corner of Ohio, watershed is 137 square miles
- Ashtabula River AOC is only the lower 2.52 miles of the mainstem, entirely within City of Ashtabula.
- 2014 three BUIs removed
 - Restrictions on fish & wildlife consumption
 - Degradation of fish & wildlife populations
 - Loss of fish & wildlife habitat
- Three BUIs remain
 - Fish tumors & other Deformities
 - Degradation of benthos
 - Restrictions on dredging activities



Black River AOC



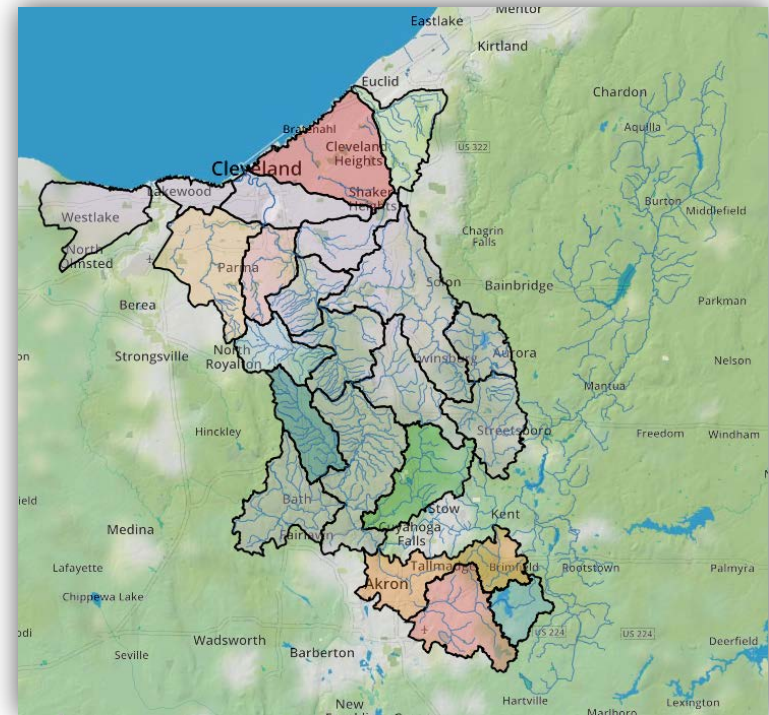
- Drains to central basin of Lake Erie, was known as 'river of fish tumors'
- Originally designated as lower 6.2 miles of mainstem
- AOC Committee enlarged to entire watershed to address what was thought to be significant sources of contamination
- 2015 AOC reduced to just mainstem, French Creek sub-basin and near Lake Erie shoreline
 - Reduction in AOC due to improvements documented in upper watersheds



Cuyahoga River AOC



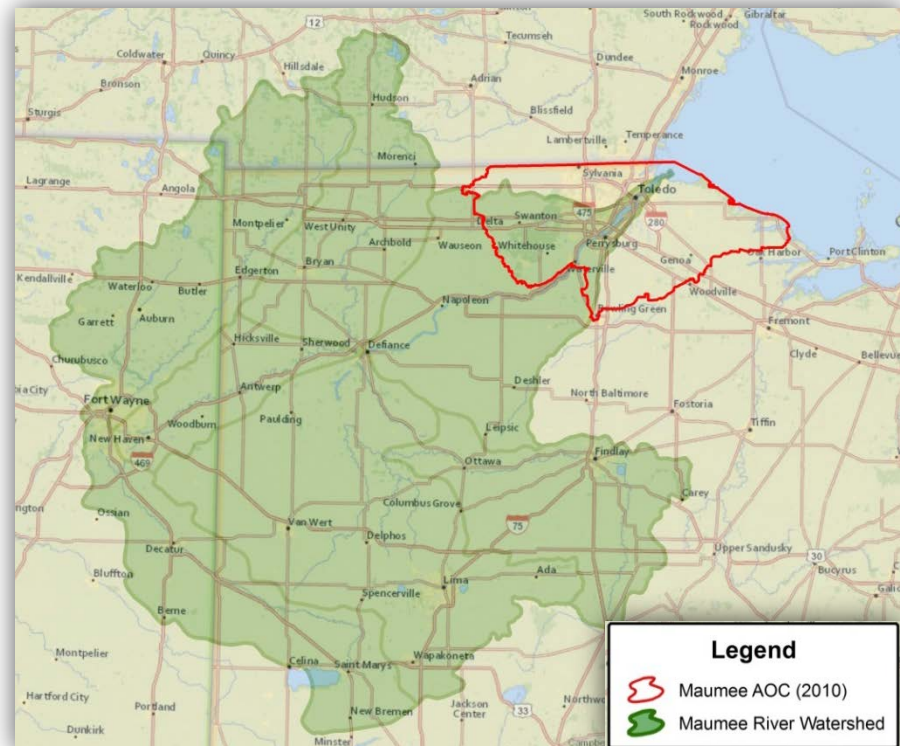
- Just east of Black River AOC
- Cuyahoga River watershed is 813 square miles
- Cuyahoga River AOC is 500 square miles
- 75 local communities
(cities/villages/townships)
- 10 miles of Lake Erie shoreline
- 46.5 miles long
- 1.1 million people
- 9 BUIs out of the 14



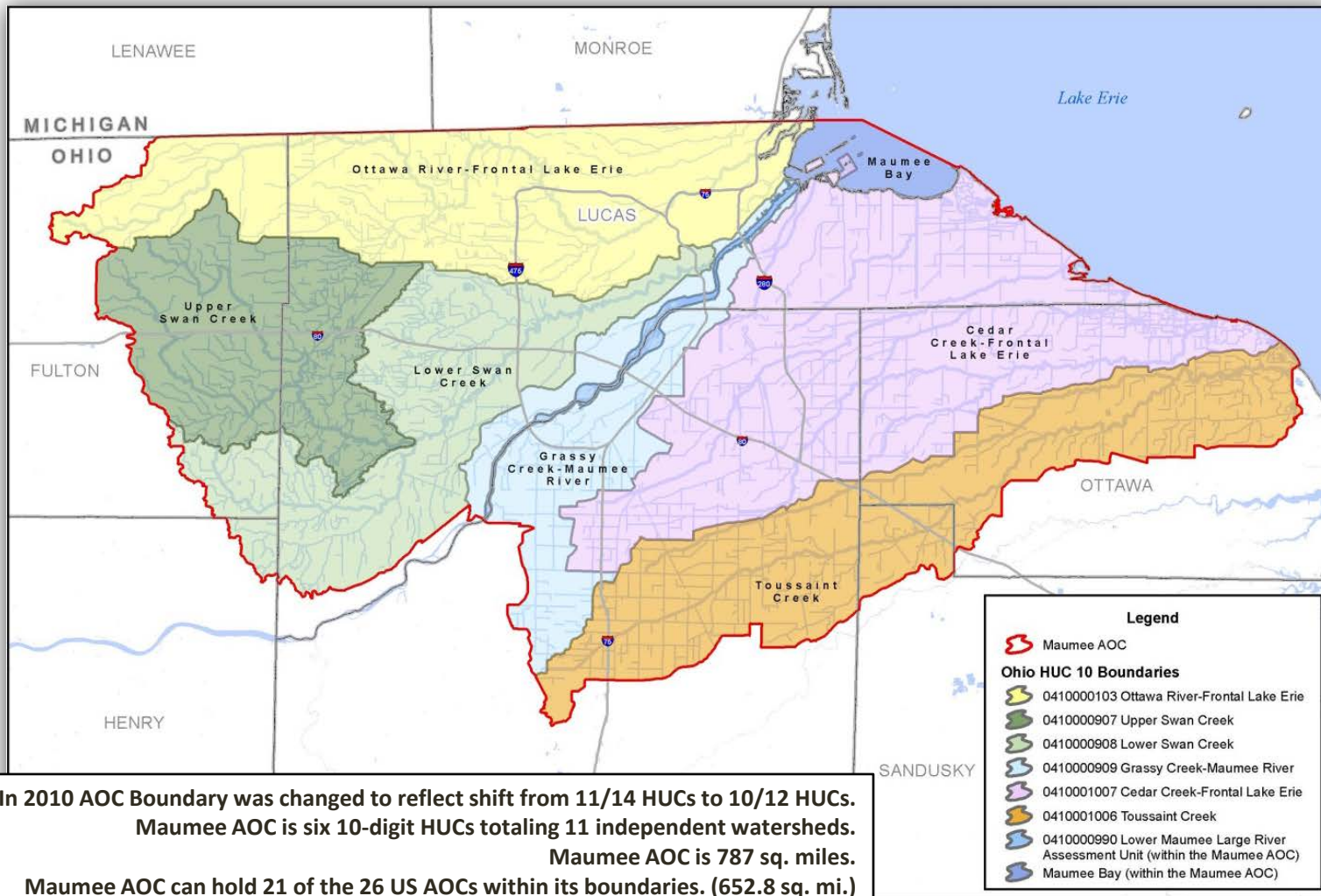
Maumee AOC



- Northwest corner of Lake Erie
- Maumee AOC is 11 independent watersheds
- AOC is NOT the whole Maumee River watershed
 - Only 3.4% of it
 - Watershed is 8,316 sq. miles
 - AOC is 787 sq. miles
- 57 local communities (cities/villages/townships)
- 558,000 residents in AOC
- Originally 10 of 14 BUIs, 1 was removed in 2015



Watersheds of the Maumee Area of Concern



In 2010 AOC Boundary was changed to reflect shift from 11/14 HUCs to 10/12 HUCs.
 Maumee AOC is six 10-digit HUCs totaling 11 independent watersheds.
 Maumee AOC is 787 sq. miles.
 Maumee AOC can hold 21 of the 26 US AOCs within its boundaries. (652.8 sq. mi.)

Questions?

Beneficial Use Impairment Restoration Targets

Narrowing the focus for a clearer path to delisting

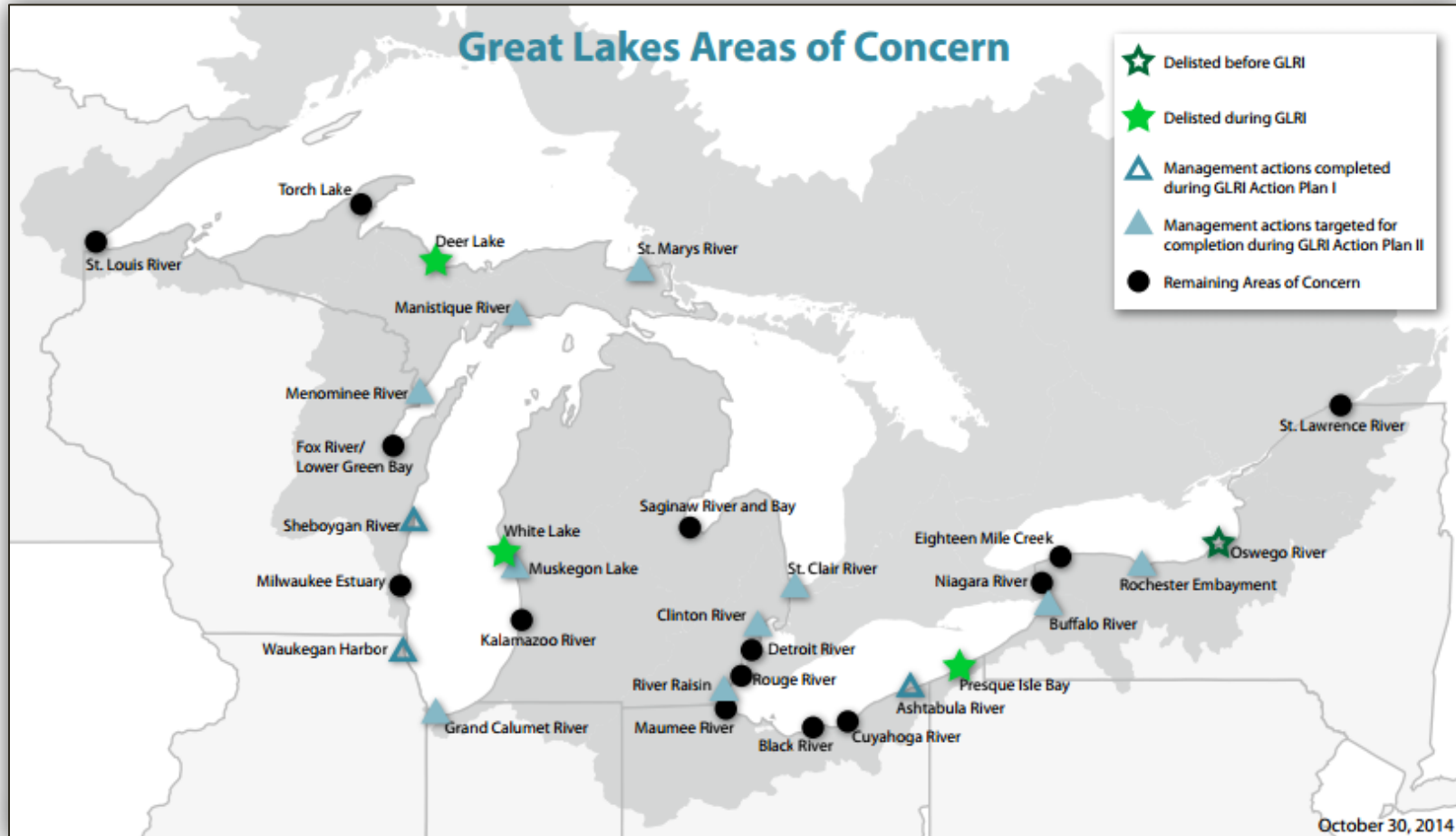
Removal of BUIs to Delist AOCs

- Determine status of BUIs based on Targets
 - Create a Management Actions List to Remove BUIs
 - Mgmt. Actions are those actions required for BUI removal
 - Once all Management Actions are complete
 - May be able to be Delist an AOC
- OR
- AOC may still require monitoring, time for natural recovery or even additional work, if the BUI Restoration Target(s) have not been achieved. (Area of Recovery [AOCir])
- Special Removal Conditions
 - Partial restoration
 - Area of recovery designation

Great Lakes Restoration Initiative

- AOC Program is included in the Great Lakes Restoration Initiative (GLRI) Action Plan
- AOC delisting and BUI removal has become a priority for many federal agencies.
- US EPA has many obligations under this plan, including the removal of a specific number of BUIs per year.
- This obligation (among others) requires restoration and removal that is moving faster than ever before; which is faster than some are comfortable with.
- It requires focusing on the problems that are tied to BUIs.
- US EPA encourages focusing on the more expensive, complex work while the GLRI is still receiving federal appropriations.

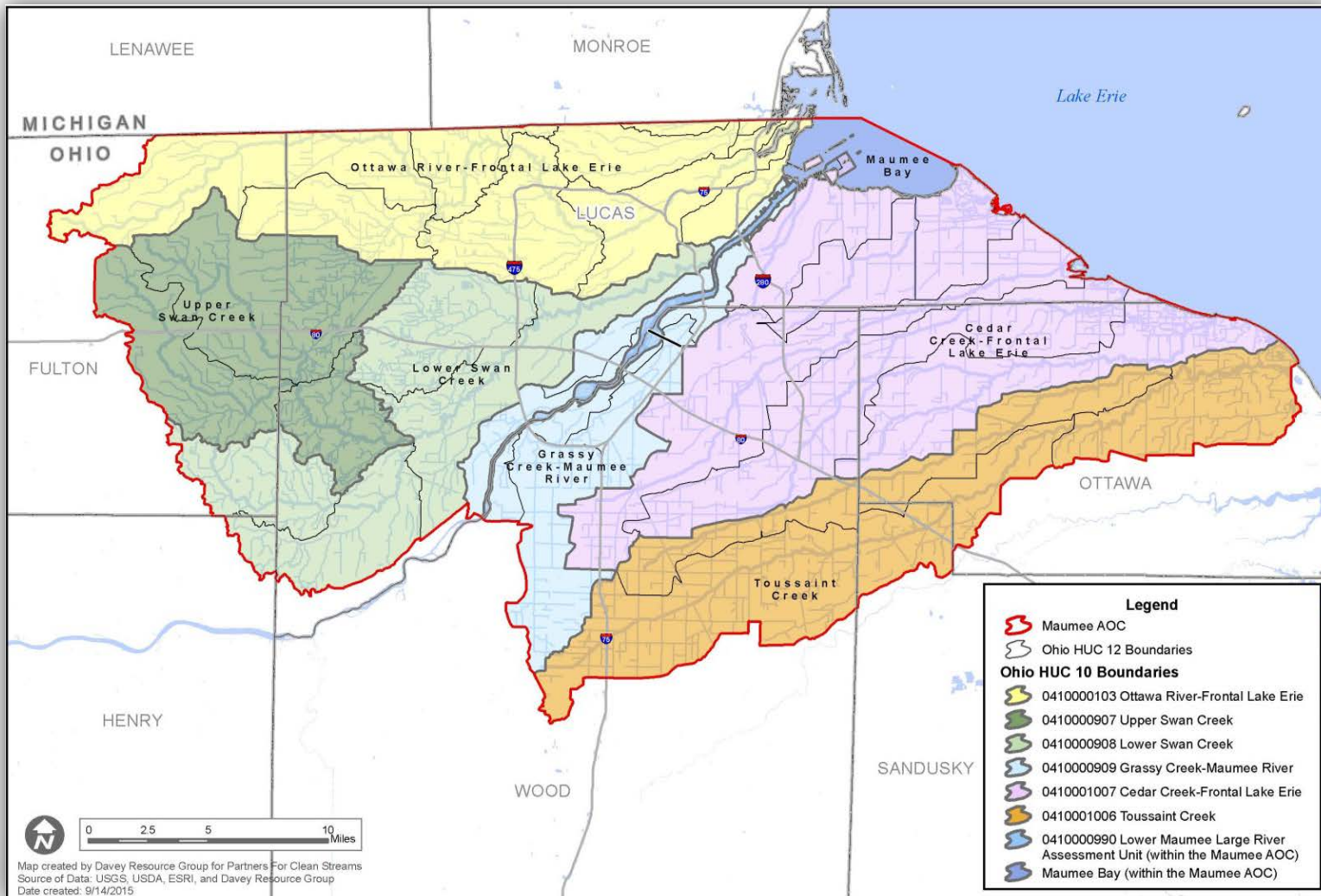
Status of U.S. Areas of Concern



Delisting Guidance and Restoration Targets for Ohio Areas of Concern

- **May 2014:** Ohio EPA released new, more measurable targets for beneficial use impairment removal
- **May 2015:** Updates to the Target document were made and the local AOC Advisory Committees were asked to review
 - Ohio EPA carefully considered comments from the local AOC advisory committees, including the MAAC, and incorporated most of the recommendations into Version 2
- **January 2016:** Ohio EPA released version 2
 - Added clarification
 - Aligned the Guidance with the new Ohio Framework (Oct. 2015)
 - Adjusted several targets based on new or corrected information and Advisory Committee comments

Assessment Units vs HUCs



Overview of BUI Status

- Overview of AOC
 - 31 assessment units for 14 BUIs = 434 assessments
 - 60% of the assessment units are “Not Impaired” or 473 sq. miles of 787 sq. miles in Maumee AOC
- Can narrow focus further with DMDS maps that show “Unknown” status

BUI	Impaired	Not Impaired	% Impaired by BUI	% Not Impaired by BUI
BUI 1: Consumption	7	24	23%	77%
BUI 2: Tainting flavor	0	31	0%	100%
BUI 3: F/W Population	31	0	100%	0%
BUI 4: Fish Tumors	7	24	23%	77%
BUI 5: Deform/Reprod	0	31	0%	100%
BUI 6: Benthos	29	2	94%	6%
BUI 7: Dredging	1	30	3%	97%
BUI 8: Eutrophication	31	0	100%	0%
BUI 9: Drinking Water	0	31	0%	100%
BUI 10: Beach Closing	3	28	10%	90%
BUI 11: Aesthetics	31	0	100%	0%
BUI 12: Ag & industry	1	30	3%	97%
BUI 13: Phyto & Zoo	1	30	3%	97%
BUI 14: F/W Habitat	31	0	100%	0%
	173	261	40%	60%

Maumee AOC BUI Status

Beneficial Use Impairment		Status
BUI 1:	Restrictions on Fish Consumption	Impaired
	Restrictions on Wildlife Consumption	Impaired
BUI 2:	Tainting of Fish and Wildlife Flavor	Not Impaired
BUI 3:	Degradation of Fish Populations	Impaired
	Degradation of Wildlife Populations	Impaired
BUI 4:	Fish Tumors or Other Deformities	Impaired
BUI 5:	Bird or Animal Deformities or Reproductive Problems	Not Impaired
BUI 6:	Degradation of Benthos	Impaired
BUI 7:	Restrictions on Dredging Activities	Impaired
BUI 8:	Eutrophication or Undesirable Algae	Impaired
BUI 9:	Restrictions on Drinking Water Consumption or Taste & Odor Problems	Not Impaired
BUI 10:	Beach Closings (Recreational Contact)	Impaired
BUI 11:	Degradation of Aesthetics	Impaired
BUI 12:	Added Costs to Agriculture or Industry	Removed 2015
BUI 13:	Degradation of Phytoplankton and Zooplankton Populations	Unknown
BUI 14:	Loss of Fish Habitat	Impaired
	Loss of Wildlife Habitat	Impaired

Questions?

Maumee AOC Data Management and Delisting System

Project and Data Management
while Tracking BUI Status

Managing Data & Projects for BUI Removal

The Maumee Data Management and Delisting System (DMDS) is a comprehensive, interactive, mapping, searchable, web-based tool that provides community-wide support for watershed planning for all of the Maumee AOC watersheds, with an emphasis on AOC Program targets, status and data.

www.MaumeeRAP.org

MaumeeRAP
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HOME PROJECTS BUI STATUS BUI DATA SOURCES BUI CHARTS RESOURCE LIBRARY HELP LOGIN

Enter word to search tags and titles

Maumee AOC DMDS 2.0
Data Management & Delisting System

GETTING STARTED

About DMDS
Welcome to the Data Management and Delisting System (DMDS), built by Partners for Clean Streams, in cooperation with Ohio Environmental Protection Agency, for the Maumee Area of Concern (AOC). The DMDS is designed to share information, maintain collaboration and communicate the status of the Maumee AOC.

In the Projects module, visitors can learn more about projects that are addressing the identified beneficial use impairments. A catalogue of information on projects that have been completed, are seeking funding, or are ongoing, as well as where they are located within the AOC, is available in the Projects module. If a visitor registers for a user account, they can submit projects to be included in this module.

The current status of the Beneficial Use Impairments (BUI), including what they are, why they exist, and what the targets are for their removal, is available in the Beneficial Use Impairments (BUI) Status module. This module allows the users to not only review the current status for each BUI for the whole AOC, but to also see the status on a smaller 10- or 12-digit hydrologic unit scale. An ongoing history of any status changes for the Beneficial Use Impairments is also available for each HUC 12 assessment unit.

Many of the BUIs and their current status are based on scientifically defensible analytical data collected primarily by the Ohio Environmental Protection Agency. Visitors to the DMDS can learn more about the data.

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Maumee DMDS: Purpose

The purpose was to develop an information management system that would:

- Provide **electronic tracking of the management actions**, *as well as other projects* and their status, including completed or active projects, funding status and potential projects that will address BUIs;
- Has a **web-based presentation of the information** for stakeholders to review *analytical data* and projects, make inquiries about status or the location of projects, see a *graphical representation of the AOC/BUI status*, and;
- **Co-located visual representation** of the status of **impairments and projects** provides valuable tools for setting priorities for targeting BUI removal.
- The DMDS is **expected to become an integral decision-making tool** for setting priorities for critical management actions that will help achieve the goal of removing BUIs.

Maumee DMDS: Modules



- The DMDS 2.0 has five modules:
 - Projects
 - Information on projects, funding, locations, etc.
 - BUI Status
 - Status of each BUI target/condition in table and map format
 - BUI Data Sources
 - Searchable, downloadable data set used to determine some BUI status
 - BUI Charts
 - Graphical illustration of progress towards achieving the target conditions
 - Resource Library
 - Library of reports, analytical data, maps, downloadable information, etc.
- Other components include:
 - Home, Help, Admin (login, vetting, edits, etc.)
 - COMING SOON (new Admin tool) – Status Update Sheets

Maumee DMDS: Examples

Maumee RAP
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HOME PROJECTS BUI STATUS BUI DATA SOURCES BUI CHARTS RESOURCE LIBRARY HELP LOGIN

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Maumee DMDS: Demonstration

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Overlays

- Sample Points
- Projects
- River Miles
- HUC 12
- HUC 10
- Rivers

Base Layer

- Google Satellite
- Google Street

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Questions?

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