

Area of Concern Information Management System

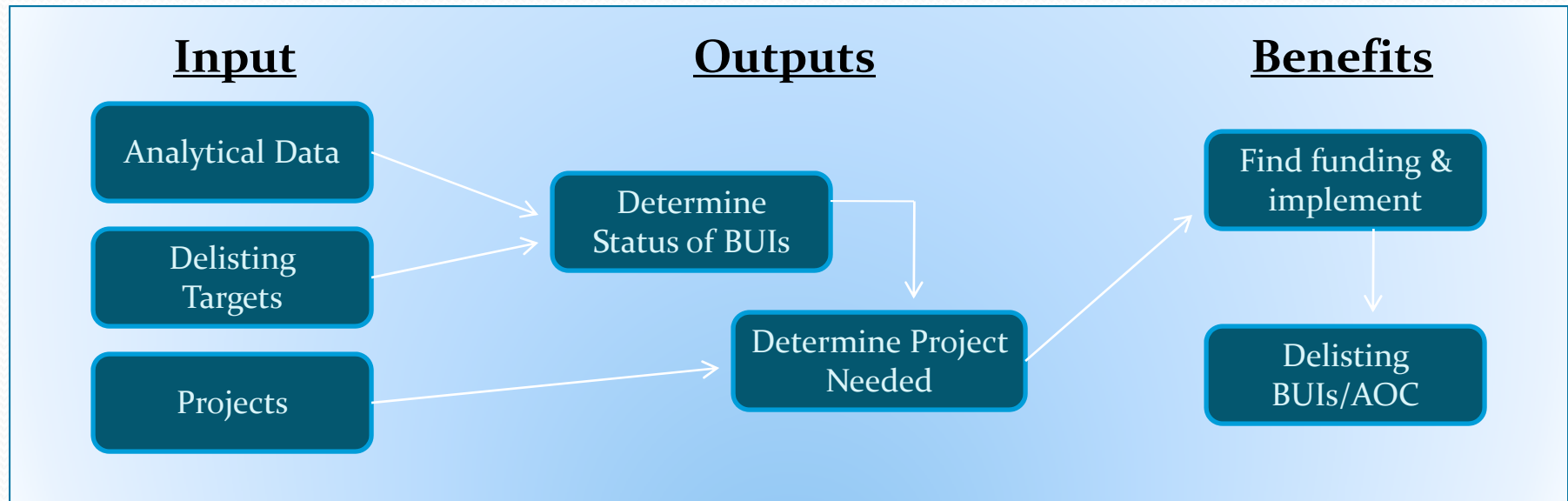
Chip Thomas
Environmental Consulting & Technology
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Data Management and Delisting System

- US EPA funded the development of Information Management Systems for AOC planning and management
- Manage analytical data on AOC Beneficial Use Impairments
- Goal is to identify which stream segments or watersheds are impaired and guide the determination of projects needed for BUI removal and AOCs delisting
- Developing for the Maumee and Grand Calumet AOCs

Data Management and Delisting System



Database and website will be maintained by Ohio EPA and IDEM with input from local groups, businesses, academia and citizens.

Data will be able to be queried for specific streams, BUIs, or issues.

It will enable our region to better track project needs and success while keeping the *Stage 2 Watershed Restoration Plan* up to date.

Delisting Targets For Ohio Areas of Concern

Ashtabula River
Black River

Cuyahoga River
Maumee River



Ashtabula River



Cuyahoga River



Black River



Maumee River

December 2008 (as revised from 2005 version)

Ted Strickland, Governor

Chris Korleski, Director

BUI 1: Restrictions on Fish and Wildlife Consumption

IJC Listing Guideline

An impairment will be listed when contaminant levels in fish or wildlife populations exceed current standards, objectives or guidelines, or public health advisories are in effect for human consumption of fish or wildlife. Contaminant levels in fish and wildlife must be due to contaminant input from the watershed.

State of Ohio Listing Guideline

This beneficial use shall be listed as impaired if:

- 1) An advisory or restriction to fish or wildlife consumption of one meal per month (or more stringent) is imposed by the Ohio Department of Health and 2) is due to sources within the AOC.

State of Ohio Delisting Target

- ✓ No fish consumption advisories of one meal per month (or more stringent) have been issued by the Ohio Department of Health that can be attributed to sources within the AOC.
- AND —
- ✓ No wildlife consumption advisories of one meal per month (or more stringent) have been issued by the Ohio Department of Health that can be attributed to sources within the AOC.

State of Ohio Delisting Milestones

- Track change in number/type of consumption advisories.
- Track change in levels of contaminants in species with consumption advisories. Contaminant levels in fish tissue should not exceed 220 µg/kg (ppb) PCBs, or 220 µg/kg mercury.
- Track change in levels of contaminants in the water column and sediment.
- ✓ No consumption advisories of one meal per month (or more stringent) in effect due to contaminant sources from within the AOC.

Rationale

While most Ohio sport fish are of high quality and a good source of protein, levels of chemicals such as PCBs, mercury, lead, and other metals and pesticides have been found in some fish from certain waters. To ensure the continued good health of Ohioans, the Ohio Department of Health, in cooperation with the Ohio Environmental Protection Agency and Ohio Department of Natural Resources, issues fish consumption advisories per Chapter 3701 of the Ohio Revised Code. Ohio uses the Protocol for a Uniform Great Lakes Sport Fish Advisory (1993) and the 2005 addendum to establish fish consumption advisories for PCBs and mercury, respectively. These are the contaminants that drive most of the advisories in Ohio waters.

Snapping turtles are currently the only wildlife species with a consumption advisory in effect as issued by the Ohio Department of Health. This advisory was listed based on the results of a one-time study done in 1997. All turtles had high levels of PCB and mercury in fat and liver tissue

“Chip” Table

Is it a “Yes/No”
or Data based
question

What file data
can be found
to answer
question

Answer to
“Yes/No”
Question &
Data Parameters

Question to
address BUI

Name of
column in
data
spreadsheet
that contains
info to be
imported to
database

Beneficial Use Impairments			Data File	Fields		
BUI 1	Restrictions on fish consumption	Is there a fish advisory for waters in the following watersheds more restrictive than general Great Lakes fish advisories?	Yes/No	Create with data entry form and enter data annually	No	
	Restrictions on wildlife consumption		Yes/No	Create with data entry form and enter data annually	No	
BUI 2	Tainting of fish and wildlife flavor	1) Is fish consumption allowed in the AOC?	Yes/No	Create with data entry form and enter data annually	Yes	
		1) What are the levels of: a. Phenol? b. 2-chlorophenol? c. 2,4-dichlorophenol	Run Data	Maumee AOC Sediment Data(1986-2008).XLS	Phenol <= 1.0 ug/l 2-chlorophenol <= 0.1 ug/l 2,4-dichlorophenol <= 0.3 ug/l	Parameter
		OR Have there been any reports of tainting from wildlife officials?	Yes/No	Create with data entry form and enter data annually	No	
BUI 3	Degradation of fish populations	1) IBI values a. Headwaters? b. Wading? c. Boat?	Run data	Maumee AOC IBI Scores(1979-2008).XLS And "wqs_use_designations.dbf" (part of shape file)	Huron / Erie Lake Plain (HELP) >=	"Modified IBI" and "IBI"
		2) MIwb values a. Wading? b. Boat?			IBI - Headwaters 28 50 20 IBI - Wading* 32 50 20 IBI - Boat* 34 48 20 MIwb - Wading 7.3 9.4 5.6 MIwb - Boat 8.6 9.6 5.7	Against "Sample Type" (boat, wading, headwaters)
		Lacustrary IBI	Run data	Maumee AOC IBI Scores(1979-2008).XLS And "wqs_use_designations.d	Maumee AOC IBI Scores(1979-2008).XLS IBI	Based on "ALU" in "wqs_use_designations.dbf" (WWH, EWH) "Lacustrary IBI"

The Database Homepage



The screenshot displays the homepage of the 'Maumee AOC Beneficial Use Impairment - Data Management System'. The interface has a solid blue background. At the top left, the system name is displayed in white text. Below this, four rectangular buttons with a light gray gradient and black text are arranged vertically. The buttons are labeled: 'Open Project Data Entry Form', 'Open Project Query Results', 'Open Annual Data Entry Form', and 'Open BUI Removal Results'. A small white arrow icon is visible in the top left corner of the blue area.

Maumee AOC Beneficial Use Impairment - Data Management System

Open Project Data Entry Form

Open Project Query Results

Open Annual Data Entry Form

Open BUI Removal Results

AOC Annual Status Report Data Entry Form

Maumee AOC Annual Status Report Entry

BUI 1 BUI 2 BUI 7 BUI 8 BUI 10 BUI 12 BUI 14 Home

HUC10 - HUC12 Names

- ☒ Cedar Creek-Frontal Lake Erie -Berger Ditch
- ☒ Cedar Creek-Frontal Lake Erie -Cedar Creek-Frontal Lake Erie
- ☒ Cedar Creek-Frontal Lake Erie -Crane Creek-Frontal Lake Erie
- ☒ Cedar Creek-Frontal Lake Erie -Otter Creek-Frontal Lake Erie
- ☒ Cedar Creek-Frontal Lake Erie -Turtle Creek-Frontal Lake Erie
- ☒ Cedar Creek-Frontal Lake Erie -Wolf Creek-Frontal Lake Erie
- ☐ Grassy Creek-Maumee River -Crooked Creek-Maumee River
- ☐ Grassy Creek-Maumee River -Delaware Creek-Maumee River

Year 2010

Restriction on Fish Consumption? ☒

Record: 1 of 2 No Filter Search

AOC Annual BUI Status Query

Select which BUI you want to check potential delisting status on

[Go To Home](#)

BUI 1 Status	BUI 8 Status
BUI 2 Status	BUI 10 Status
BUI 3 Status	BUI 11 Status
BUI 4 Status	BUI 12 Status
BUI 6 Status	BUI 14 Status
BUI 7 Status	

Some BUI Status updates may take longer to load than others due to data computation.

Results for BUI 14 Loss of Fish Habitat

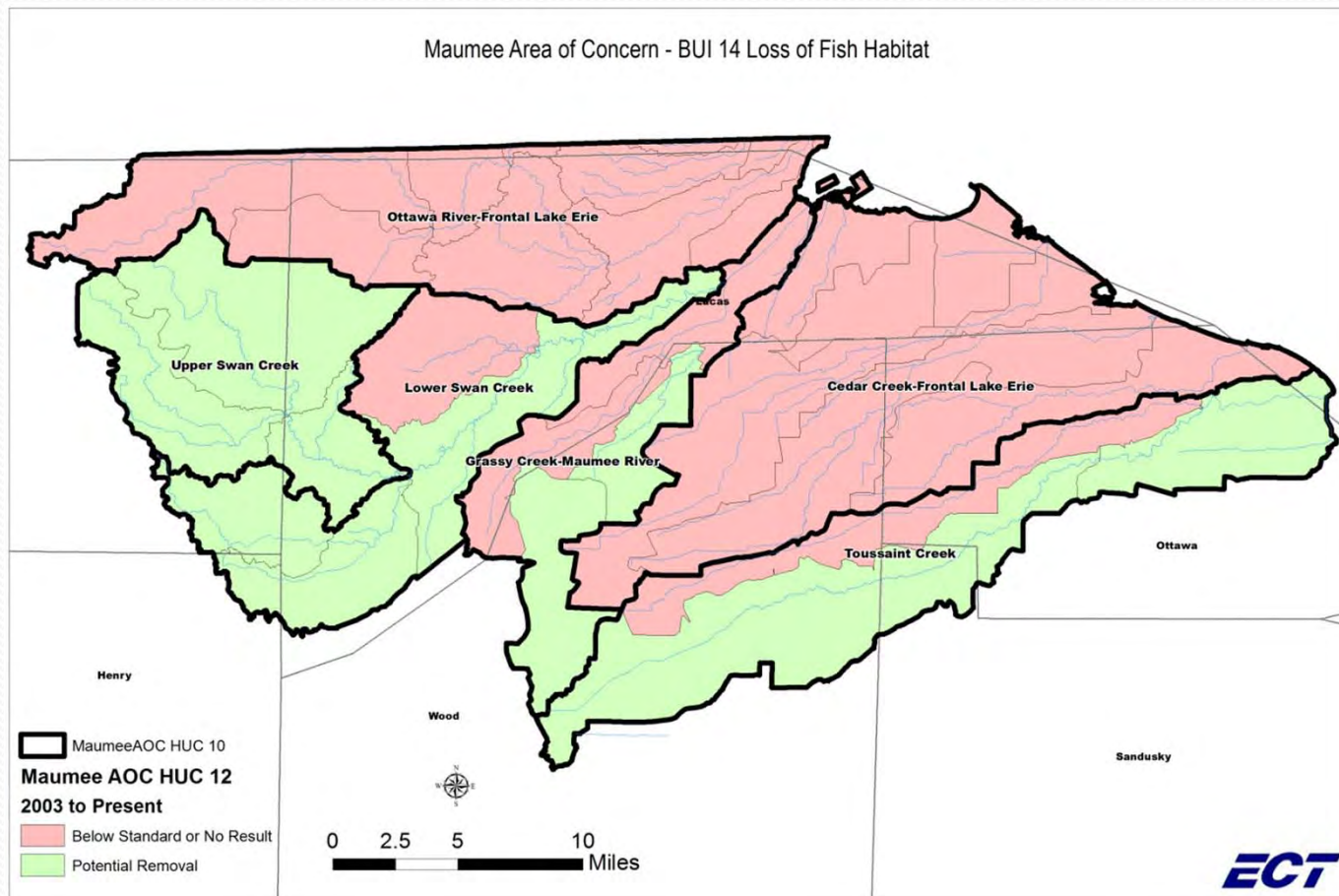
Results indicate HUCs that have potential to be removed from BUI list [BUI Status Form](#)

HUC1012Name	year_
Grassy Creek-Maumee River -Grassy Creek	2006
Grassy Creek-Maumee River -Grassy Creek Diversion	2006
Lower Swan Creek -Heilman Ditch-Swan Creek	2006
Lower Swan Creek -Lower Blue Creek	2006
Lower Swan Creek -Upper Blue Creek	2006
Toussaint Creek -Lower Toussaint Creek	2003
Toussaint Creek -Upper Tousant Creek	2003
Upper Swan Creek -Ai Creek	2006

Record: 1 of 8 Filtered Search

Modify selection using field heading pulldown lists. Highlight selection by clicking upper left corner then copy and paste into spreadsheet. May then be inserted into GIS for mapping.

Map Output: Loss of Fish Habitat



Project Data Entered By

Project: Anderson Property Dam Removal (Phase 1)

☐ Check if project is complete

Data Entered By | Project Contact Info | Project Location | Related Project | Project Type | Task | BUI Status | Sources and Causes | Home

Enter person responsible for data entry

This Project Data Was Entered By:

This Project Data Was Provided By:

This Project Data Was Entered On:

This Project Data Was Updated/Modified By:

This Project Data Was Provided By:

This Project Data Was Updated/Modified On:

Record: 1 of 251 | No Filter | Search |

View | Num Lock

Project Contact

Project: Anderson Property Dam Removal (Phase 1)

☐ Check if project is complete

Data Entered By | Project Contact Info | Project Location | Related Project | Project Type | Task | BUI Status | Sources and Causes | Home

Select Contact From Pulldown. Enter new record for each contact as appropriate. Create new contact if not available on list.

Contact: contact1 | Role: | Enter New Contact

Address1: 65858

Address2: main st

City:

State:

Zip:

Email:

Phone:

Organization:

☒ Federal

☐ Private

☐ State

☐ Citizen

☐ Local

☐ Responsible Party

☐ Non-Profit

Record: 1 of 1 | No Filter | Search

Record: 1 of 251 | No Filter | Search

Project Location

Project:

☐ Check if project is complete

Data Entered By | Project Contact Info | **Project Location** | Related Project | Project Type | Task | BUI Status | Sources and Causes | Home

Enter new record for each Subshed or location point

Project Location

Latitude Longitude

HUC 10 - HUC 12 Names

- ☐ Cedar Creek-Frontal Lake Erie -Berger Ditch
- ☐ Cedar Creek-Frontal Lake Erie -Cedar Creek-Frontal Lake Erie
- ☐ Cedar Creek-Frontal Lake Erie -Crane Creek-Frontal Lake Erie
- ☐ Cedar Creek-Frontal Lake Erie -Otter Creek-Frontal Lake Erie
- ☐ Cedar Creek-Frontal Lake Erie -Turtle Creek-Frontal Lake Erie
- ☐ Cedar Creek-Frontal Lake Erie -Wolf Creek-Frontal Lake Erie
- ☐ Grassy Creek-Maumee River -Crooked Creek-Maumee River

Additional Note

Record: 1 of 1 | No Filter | Search

Record: 1 of 251 | No Filter | Search

Related Project

Project: Anderson Property Dam Removal (Phase 1)

☐ Check if project is complete

Data Entered By Project Contact Info Project Location **Related Project** Project Type Task BUI Status Sources and Causes Home

Select any or all related projects

☐ Check - if this project has another project that needs to be completed before this one can start.

Select Appropriate project:

☐ Check - If the above selected project is complete.

Notes

Record: 1 of 251 No Filter Search

Project Type

Project: Anderson Property Dam Removal (Phase 1)

☐ Check if project is complete

Data Entered By Project Contact Info Project Location Related Project Project Type Task BUI Status Sources and Causes Home

Choose appropriate Project Type and USEPA Category

Project Type		USEPA Category	
Construction	<input type="checkbox"/>	Toxic Substances and Areas of Concern	<input type="checkbox"/>
Planning	<input type="checkbox"/>	Invasive Species	<input type="checkbox"/>
Policy	<input type="checkbox"/>	Nearshore Health	<input type="checkbox"/>
Environmental	<input type="checkbox"/>	Nonpoint Source Pollution	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Habitat and Wildlife Protection and Restoration	<input type="checkbox"/>
Modeling	<input type="checkbox"/>	Accountability, Education, Monitoring, Evaluation, Communication and Partnership	<input type="checkbox"/>
Other	<input type="checkbox"/>		

Record: 1 of 251 No Filter Search

Project Task(s)

Project: Anderson Property Dam Removal (Phase 1)

☐ Check if project is complete

Data Entered By Project Contact Info Project Location Related Project Project Type Task BUI Status Sources and Causes Home

Enter new record for each task as appropriate

Task

	Start Date	Projected End Date	End Date	Cost
Concept	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Planning	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
In Progress	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
On-going	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Completed	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Not Feasible			<input type="text"/>	

Record: 1 of 1 No Filter Search

Record: 1 of 251 No Filter Search

Project BUI Status

Project: Anderson Property Dam Removal (Phase 1)

☐ Check if project is complete

Data Entered By Project Contact Info Project Location Related Project Project Type Task BUI Status Sources and Causes Home

Select Address, Recovery or Remove for each BUI as appropriate for the selected project

BUI	Address	Potential Recovery	Remove
BUI #1 - Restriction on Consumption	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUI #2 - Tainting of Flavor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUI #3 - Degradation of Fish Populations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUI #4 - Fish Tumors_Deformities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUI #6 - Degradation of Benthos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUI #7 - Restriction on Dredging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUI #8 - Eutrophication or Undesirable Algae	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUI #10 - Beach Closing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUI #11 - Degradation of Aesthetics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUI #12 - Added Cost to Agriculture or Industry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUI #14 - Loss of Fish Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Record: 14 1 of 251 No Filter Search

Project Sources and Causes

Project: Anderson Property Dam Removal (Phase 1)

☐ Check if project is complete

Data Entered By Project Contact Info Project Location Related Project Project Type Task BUI Status Sources and Causes Home

Choose appropriate Item(s) from Causes List and Sources List

Causes	Sources
<input type="checkbox"/> All	<input type="checkbox"/> Riparian Corridor Destruction
<input checked="" type="checkbox"/> Flow Alterations	<input type="checkbox"/> Road Deicing
<input type="checkbox"/> Habitat Modifications	<input type="checkbox"/> Roads
<input type="checkbox"/> Nutrients	<input type="checkbox"/> Septic Systems
<input type="checkbox"/> Organic Enrichment	<input type="checkbox"/> All
<input type="checkbox"/> Organic Enrichment/Low D.O.	<input type="checkbox"/> All land where pesticide is used
<input type="checkbox"/> Organic Enrichment/Nutrients	<input type="checkbox"/> Animal Waste
<input type="checkbox"/> Pathogens	<input type="checkbox"/> Atmospheric Deposition
<input type="checkbox"/> Pesticides	<input type="checkbox"/> Changing Land Uses
<input type="checkbox"/> Refuse, Litter, ect.	<input type="checkbox"/> Channelization
<input type="checkbox"/> Salinity	<input type="checkbox"/> Construction
<input type="checkbox"/> Sedimentation/Siltation	<input type="checkbox"/> Cropland
<input type="checkbox"/> Thermal Stress/Sunlight	<input type="checkbox"/> Cropland or pasture where manure is spread
<input type="checkbox"/> Toxic Substances	<input checked="" type="checkbox"/> Dams
	<input type="checkbox"/> Decaying Plant/Animal Matter
	<input type="checkbox"/> Discarded Litter/Food Waste
	<input type="checkbox"/> Erosion & Runoff From Fertilized Fields
	<input type="checkbox"/> Failed Sentic Systems

Record: 1 of 251 No Filter Search

Project Questionnaire

Maumee AOC Stage 2 Watershed Restoration Plan Database Project Submission Sheet

Name of Project: _____
Brief Description: _____

• Project Location

Brief Description: _____
Subwatershed(s): _____
Latitude: _____
Longitude: _____
Stream Segment ID: _____

• Project Contact Information

Primary Contact

— Name and title _____
— Organization _____
— Address _____
— Phone Number _____
— Email Address _____
— Collaborators _____

Secondary Contact(s)

— Name and title _____
— Organization _____
— Address _____
— Phone Number _____
— Email Address _____
— Collaborators _____

• Type of Project:

☐ Construction ☐ Policy ☐ Monitor
☐ Planning ☐ Education ☐ Outrea

• Organization Type

☐ Federal ☐ Local ☐ Private
☐ State ☐ Non-Profit ☐ Respo

Maumee AOC Stage 2 Watershed Restoration Plan Database Project Submission Sheet

• USEPA Category:

- ☐ Toxic Substances and Areas of Concern
☐ Invasive Species
☐ Nearshore Health
☐ Nonpoint Source Pollution
☐ Habitat and Wildlife Protection and Restoration
☐ Accountability, Education, Monitoring, Evaluation, Communication, and Partnership

• BUI Status: (check all that apply)

	Addresses	Potential Recovery	Removal
1. Restrictions on Fish and Wildlife Consumption	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Tainting of Fish and Wildlife Flavor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Degradation of Fish and Wildlife Populations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Fish Tumors or Other Deformities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Bird or Animal Deformities or Reproductive Problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Degradation of Benthos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Restrictions on Dredging Activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Eutrophication or Undesirable Algae	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Restrictions on Drinking Water Consumption or Taste/Odor Problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Beach Closings (Recreational Contact)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Degradation of Aesthetics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Added Costs to Agriculture or Industry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Degradation of Phytoplankton and Zooplankton Populations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Loss of Fish and Wildlife Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

• Interdependent Projects

Is this project completed? ☐ Yes ☐ No
Is there a project that needs to be completed prior to this project? ☐ Yes ☐ No
If so, list: _____

Maumee AOC Stage 2 Watershed Restoration Plan Database Project Submission Sheet

• Project Tasks:

Please complete the following for each Task necessary to complete your project. Number each task so they will be kept in order in the database. Duplicate this sheet as needed for the number of tasks required by your project.

Task #: _____

Task Name: _____

	Start Date	Projected End Date	Actual End Date	Estimated or Actual Cost or Range(\$)
Concept				
Planning				
In Progress				
Completed				
Ongoing				
Not Feasible				

Brief Description: _____

Task #: _____

Task Name: _____

	Start Date	Projected End Date	Actual End Date	Estimated or Actual Cost or Range(\$)
Concept				
Planning				
In Progress				
Completed				
Ongoing				
Not Feasible				

Brief Description: _____



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