



# 2015 Maumee AOC Summit

**Thursday, December 10, 2015**  
9:30am to 12:30pm  
Ward Pavilion, Wildwood Metropark,  
5100 W Central Ave, Toledo, OH 43615

## AGENDA

- 9:30-9:35am Welcome and Introductions  
*John Kusnier, Chair, MAAC*
- 9:35-10:00am Maumee AOC Advisory Committee Update  
*John Kusnier, Chair, MAAC*
- 10:00-10:10am Questions & Discussion
- 10:10-10:40am Agency and Facilitating Organization Reports

10:00 – 10:10	US EPA Report ( <i>Kevin O'Donnell, US EPA Task Force Leader</i> )
10:10 – 10:20	Ohio EPA Report ( <i>Cherie Blair, Ohio EPA AOC Coordinator</i> )
10:20 – 10:30	Partners for Clean Streams Report ( <i>Kristina Patterson, PCS, Executive Director</i> )

- 10:40-10:50am Agency and Facilitating Organization Questions and Discussion
- 10:50-11:00am Break (networking)
- 11:00-11:40am Partner Presentations

11:00 – 11:20	Smartmapping as a Way of Understanding Rivermouth Processes <i>Jeff Schaeffer, US Geological Survey</i>
11:20 – 11:40	EPA Office of Research and Development projects to support GLNPO and the Maumee AOC <i>Marc Mills, US Environmental Protection Agency</i>

- 11:40-12:10pm Additional Partner Reports and Project Updates/Public Comments
- Open floor for project sharing by any other partners  
(i.e. TMACOG, City of Toledo, Metroparks, TNC, DU, etc.)
- 12:10-12:25pm Public Comments and Questions
- 12:25-12:30pm Closing comments and announcements

**Next Maumee AOC Summit**  
**December 2016**  
**Location TBD**



Welcome to the 2015 Winter  
Maumee AOC Summit

**PCS and the Maumee AOC Advisory  
Committee  
would like to thank our sponsors for  
this event!**



**METROPARKS**  
T O L E D O   A R E A

*Your Clean, Safe, Natural Places To Be*



**Civil & Environmental Consultants, Inc.**

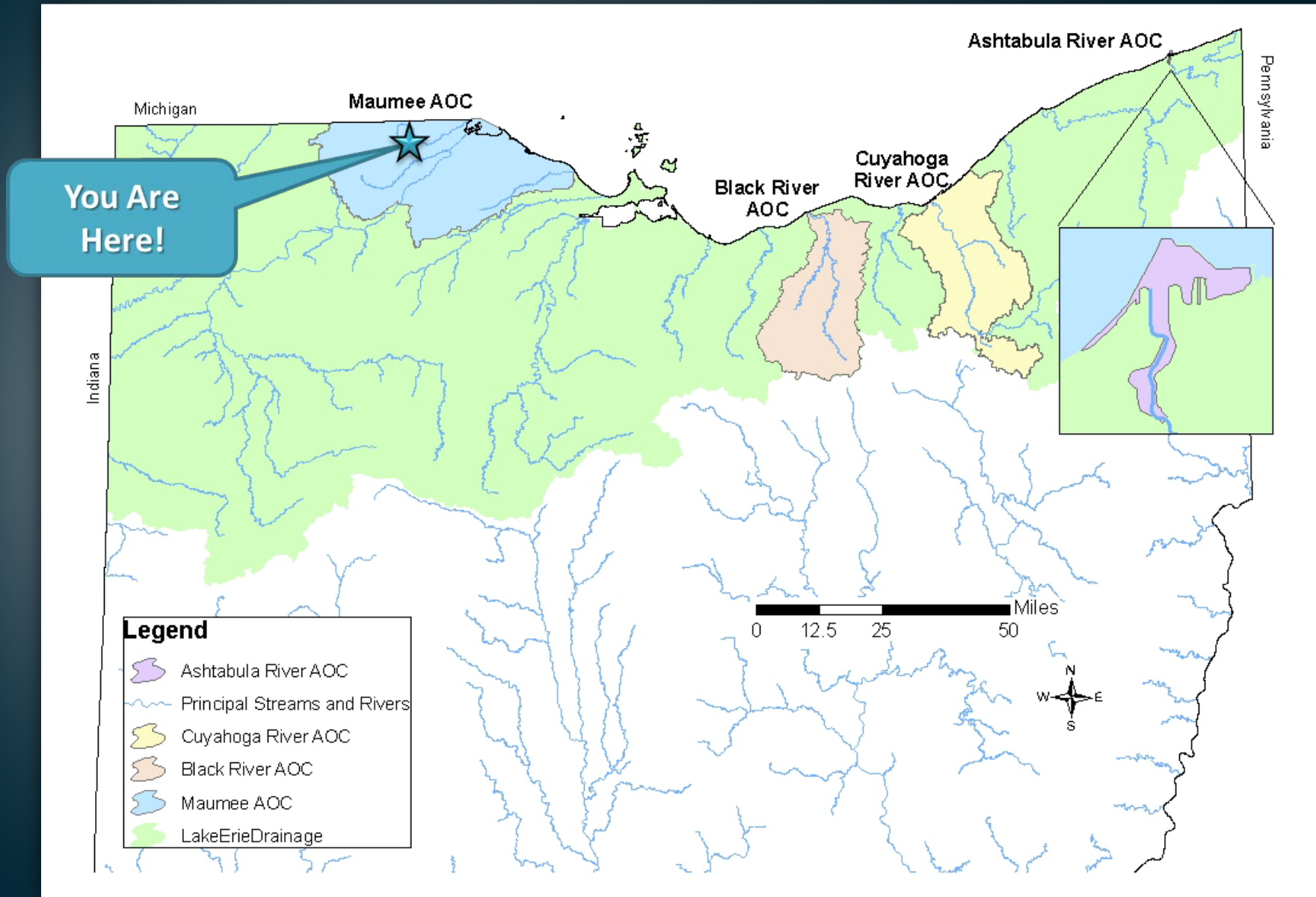




# Maumee AOC Advisory Committee

## Reorganizing for better collaboration

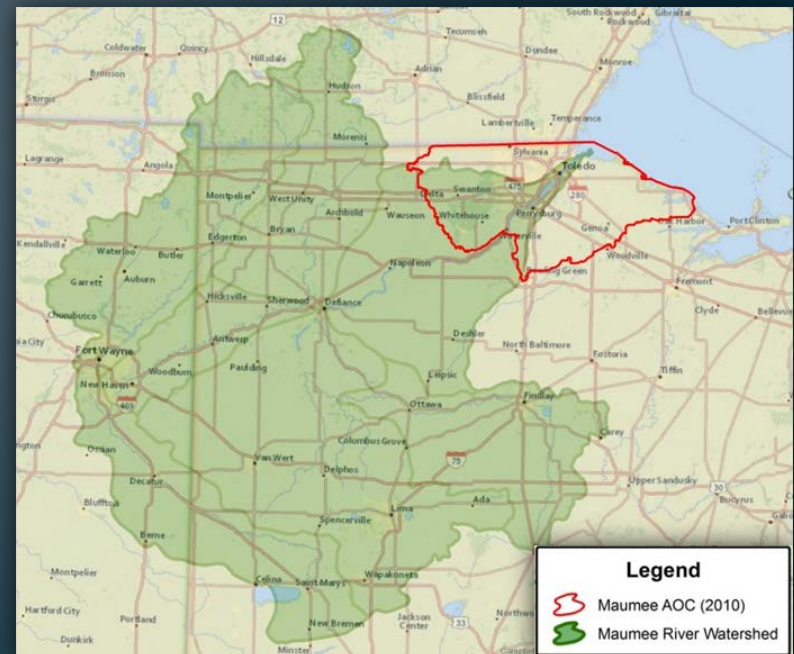
# Ohio's Areas of Concern





# Maumee AOC

- Northwest corner of Lake Erie
- 11 independent watersheds
- 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



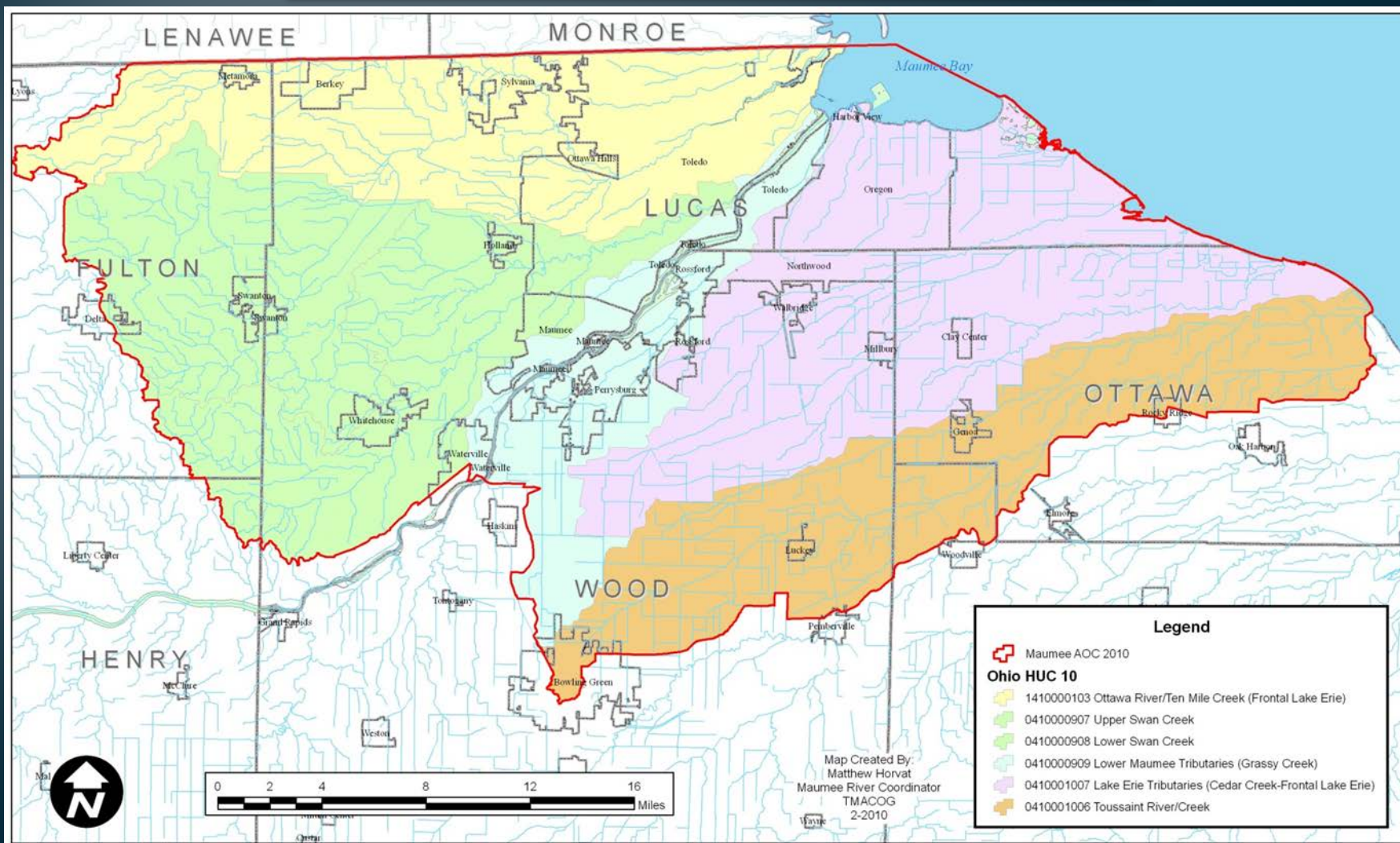
# Watersheds of the Maumee AOC

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.)





# BUIs, the Key to Delisting the AOC

- Within Maumee 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
  - We still have a way to go

\*No Impairment in AOC due to BUIs 2, 5, 9 or 12

Beneficial Use Impairment (BUI)	Impaired	Not Impaired
BUI 1: Restrictions on Fish & Wildlife Consumption	7	24
BUI 2: Tainting of Fish and Wildlife Flavor*	0	31
BUI 3: Degraded Fish and Wildlife Populations	31	0
BUI 4: Fish Tumors and Other Deformities	7	24
BUI 5: Bird or Animal Deformities/Reproductive Problems*	0	31
BUI 6: Degradation of Benthos	29	2
BUI 7: Restrictions on Dredging Activities	1	30
BUI 8: Eutrophication or Undesirable Algae	31	0
BUI 9: Restrictions on Drinking Water Consump.*	0	31
BUI 10: Beach Closings	3	28
BUI 11: Degradation of Aesthetics	31	0
BUI 12: Added costs to Agriculture & industry*	0	31
BUI 13: Degradation of Phytoplankton and/or Zooplankton	1	30
BUI 14: Loss of Fish and Wildlife Habitat	31	0



# Maumee AOC

## & Partners for Clean Streams



- From 1987 – 2007 the Maumee RAP was coordinated through TMACOG
- In 2007, the Maumee RAP establish its own 501(c)3 nonprofit organization, Partners for Clean Streams (PCS) to:
  - Facilitate partnership building and collaboration in watershed planning and project development
  - Assist partners with implementation of projects
  - Raise awareness of watershed issues in the community
  - Maintain organizational sustainability and overall administration/funding for PCS
- PCS has been charged by Ohio EPA to serve as the facilitating organization for the Maumee AOC Advisory Committee

# Formation of the Maumee AOC Advisory Committee (MAAC)



- Ohio EPA released final AOC Program Framework (Oct. 2014)
- MAAC formation was announced at AOC Summit (Dec. 4, 2014)
- Applications were sought for MAAC participation
- Conducted a call for ex-officio & resource member commitments
- Nine applications for the voting membership were received and peer-reviewed by local and regional AOC people

# MAAC 2015 Members



- Voting Members

- Tara Baranowski, The Nature Conservancy
- Sandy Bihn, Lake Erie Waterkeeper
- Tim Bollin, Toledo Public Schools
- Bull Buri, Interested Citizen
- Jim Carter, Wood County Soil and Water Conservation District
- Jenny Carter-Cornell, Hull & Associates, Inc.
- John Kusnier, Davey Resource Group
- Terry Shankland, Interested Citizen
- Tim Schetter, Metroparks of Toledo Area
- The search for New MAAC members is on (Deadline is December 11)



# MAAC 2015 Members continued



- **Ex-officio Members (non-voting)**
  - Joann Banda, USFWS
  - Cherie Blair, Ohio EPA
  - Bryan Hinterberger U.S. Army Corps of Engineers
  - Matt Horvat, TMACOG
  - Sarah Lowe, NOAA
- **Resource Agency Members (non-voting)**
  - Archie Lunsey, Ohio EPA
  - Dick Bartz, USGS
  - Mike Libben, Ottawa County Soil and Water Conservation District
  - Deborah Millsap, USFWS
  - Kevin O'Donnell, USEPA
- **Facilitating Organization (non-voting)**
  - Kris Patterson, Partners for Clean Streams

# 2015 Activities/Accomplishments

- February 2015

- Reviewed Ohio EPA framework
- Agreed on goals and objectives
- Developed Draft Operating Procedures
- Elected Officers
- Approved slate of ex-officio members
- Discussed AOC small grants
- Set the schedule for future meetings

- April 2015

- Continued discussion on Small Grants
- Summarized what was learned at US AOC Conference in March
- Discussed MAAC and AOC needs
- Established path forward



# Review of BUI Delisting Targets (June 2015)

- BUI 1: Restrictions on Fish and Wildlife Consumption – Accepted Target as Written
- BUI 2: Tainting of Fish and Wildlife Flavor – Accepted Target as Written
- BUI 3: Degraded Fish and Wildlife Populations – Accepted Target as Written\*
- BUI 4: Fish Tumors or Other Deformities – Accepted Target with Minor Modification
- BUI 5: Bird or Animal Deformities or Reproductive Problems – Accepted Target as Written
- BUI 6: Degradation of Benthos – Accepted Target As Written
- BUI 7: Restrictions on Dredging Activities – Accepted Target with Minor Modification
- BUI 8: Eutrophication or Undesirable Algae – Accepted Target As Written
- BUI 9: Restrictions on Drinking Water Consumption or Taste and Odor Problems – Accepted Target As Written
- BUI 10: Beach Closings - Accepted Target As Written
- BUI 11: Degradation of Aesthetics – Accepted Target with Minor Modification
- BUI 12: Added Costs to Agriculture or Industry - Accepted Target As Written
- BUI 13: Degradation of Phytoplankton and Zooplankton Populations – Accepted Target as Written
- BUI 14: Loss of Fish and Wildlife Habitat – Develop AOC-specific Target

\*Target species to be determined



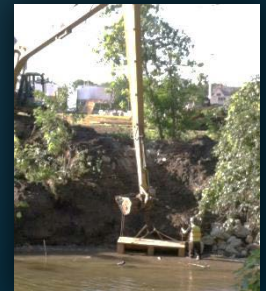
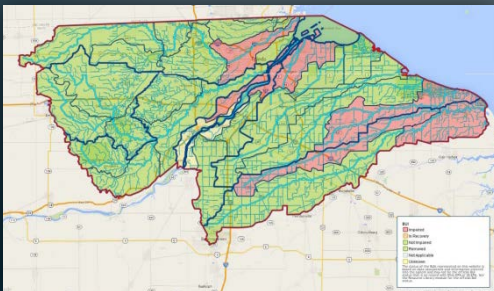
# In the Next 6-12 Months



- Develop Delisting Targets for BUI 14 and determine indicator species for BUI 3
- Research and confirm status of BUIs where data exists
- Identify data gaps
- Develop Management Action List
- Develop fish and wildlife habitat restoration plans
- Develop process for determining status where data or collection method does not exist
- Update BUI status with data collected Summer 2015
- Continue to develop and refine the list of management actions needed, where and how much
- Form Technical Advisory Committee?
- Develop schedule for complete delisting of Maumee AOC

# Where We are Now

- DMDS is able to show us...
  - where BUI's are "Impaired"
  - where BUIs are "Unknown" (because data is missing or old)
- Ohio EPA plans to collect data to determine status of "unknowns" & (hopefully) further narrow where work is needed
- Ohio EPA will help local MAAC (and its teams) to determine "impaired" areas and why the impairment exists using DMDS tables, maps and charts *(see explanation and handouts)*



# Maumee AOC Small Grants

- Maumee RAP received Supplemental Environmental Project (SEP) funds from various federal, state, & local cases since 1995
- Have used funds for small projects and to match grants
- Currently have \$35,000+ so decided to conduct a small grant RFP
  - Ottawa River - Tenmile Creek HUC (04100001 03 06):
    - Improvements of fish populations (looking to raise Mlwb score)
    - One (1) project funded at \$15,000 maximum
  - Maumee Area of Concern:
    - Demonstration projects\*
    - Two (2) projects, funded at \$10,000 maximum each
- Deadline Jan. 30, extended to Feb. 11 due to other grant deadlines
- Awarded one project for \$10,000 to construct raingardend demonstration project
- PCS acts as fiscal officer for these funds, contracts will be with them
- DMDS was used to determine the HUC-specific project



# Public Outreach/Involvement

- Semi-annual AOC Summits (May & Dec.)
- A new MaumeeRAP.org website
- Created new social media opportunities for MAAC on Facebook and Twitter. Please Like and Follow us.
- Placed one sign at new National Great Lakes Museum highlighting AOC & 25<sup>th</sup> anniversary of GLQWA and AOC restoration focused signs at 3 projects in the AOC: Camp Miakonda, Univ. of Toledo & Toledo Botanical Garden
- Several annual awareness building, public involvement events:
  - 13<sup>th</sup> Annual Youth Patch Day (Mar) – average over 100 local youth
  - Storm Drain Marking (GYSD-Sept) – over 85 volunteers, nearly 650 drains
  - 11<sup>th</sup> Annual Get the Lead Out (June-Aug) – 44 volunteers in 2014
  - 19<sup>th</sup> Annual Clean Your Streams (Sept) – nearly 1000 people
  - New programs to address Aesthetics BUI in development (i.e. CYS 365)



# THANK YOU!

And please remember:

Applications to serve on the  
MAAC are due tomorrow,  
December 11, 2015!



## **Maumee AOC Coordinator Update for July to November 2015**

*Presented at the Maumee AOC Summit  
December 10, 2015*

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- The **BUI 12 removal package** with input from US EPA-GLNPO, Ohio EPA, and MAAC was finalized including supporting documentation and comments from MAAC and public. After routing through the Ohio EPA Director it was sent to US EPA-GLNPO for concurrence. US EPA's acceptance letter was received on Sept 23, 2015. CONGRATS on our first BUI removal!
- As I have mentioned in the past, US FWS and US EPA have been collecting various data in the Ottawa River. They collected fish samples for **fish tissue analysis** this summer/fall. When it was determined that they did not have the funds to analyze the fish, Ohio EPA agreed to incur this cost. Because the sample size and locations were fairly robust throughout the DO NOT EAT advisory zone, it is expected that the status of the consumption advisory will be able to be updated. The hope is the DO NOT EAT advisory may be able to be reduced. Results are not expected until Fall 2016, and any determination of the consumption advisory will not be made until Winter 2016. New advisories are issued the last day in February each year.
- Starting in 2016, several federal agencies are planning a **Great Lakes wide sampling event** focusing on different issues each year. In 2016 it is anticipated that the focus will be on pesticides. The Maumee River is expected to be one of the focus streams for Lake Erie. In late September I conducted field recon for sampling locations with US FWS.
- Based on the Annex 4 recommendations, 40% reduction goals for phosphorus, Domestic Action Plans and other initiatives, Ohio EPA is re-evaluating its monitoring approach and which watersheds will be sampled in the coming years under its Basin Study Program. I am highly encouraged that sampling be conducted in the watersheds of the Maumee AOC due to the age of some of our data and their location in the Western Basin. It may be possible to have most of the **AOC comprehensively sampled** in the next few years. I will keep you posted.
- **Ohio EPA is supporting the MAAC's** next steps for the Maumee AOC with support funding to PCS to serve as the Facilitating Organization for the MAAC and the hiring a state contractor to assist with the development of a local target for BUI 14: Wildlife Habitat. Ohio EPA anticipates that additional funding for PCS and assistance with the other next steps will be available next spring.

### NEXT STEPS in 2016 for the MAAC

- Create local target for BUI 14: Wildlife Habitat
  - Define what is needed on Management Actions List
  - Begin creation of Fish and Wildlife Habitat and Restoration Plans (using existing plans and new projects; projects highlighted should be based on need for restoration of BUI 3, 6 and the new local target for BUI 14)
  - Begin creation of Management Actions List
- See the **FY2015 Annual Report Maumee AOC (July 2014 to June 2015)** for a listing of additional activities in 2015 and the plans for 2016.



## Maumee AOC Advisory Committee

*Facilitating Organization's Update, December 2015*

### Update

- **Facilitating Organization's Report**

- Status update on current Ohio EPA grant(s), activities, monies remaining, extension(s) – previous grant closed Sept 15<sup>th</sup>, all money was spent out. Final reports were submitted.
- New short-term funding: Sept 16 – Feb. 28<sup>th</sup> 2016 (~ 5 months, ~\$46,000, retro-active)
  - To support committee meetings & sub-committee meetings
  - To support the application process for 2016 committee
  - To support work to develop BUI 14
  - To support work to develop next steps (identify work beyond Feb 2016)
  - To develop a simple BUI/AOC Report Card
  - To continue planning for 2016 outreach activities, such as Patch Day & Storm Drain Marking
  - To continue to maintain and add new tools and data to the DMDS, Version 2
  - To continue supporting planning for 2016, identifying new grant opportunities, and developing future AOC projects.
- Future support funding has not been secured. Ohio EPA expects to secure a 3-year grant from US EPA by April. Ohio EPA will ask for and review requests from local Facilitating Organizations and the Committee for their next steps and deliverables. The amount available for local support and activities is unknown at this time.

- **Highlights of the 2015 Accomplishments**

- In 2015, to support the activities in the AOC, including (but not limited to) the MAAC, PCS:
  - Assisted in re-forming the MAAC through planning meetings, preparing and distributing materials, reviewing applications and notifying applicants
  - Assisted with preparing for and facilitating 6 MAAC meetings
  - Worked with Ohio EPA and Davey Resource Group (our contractor) to develop and launch the DMDS (additional funding above the facilitation grant)
  - Prepared and maintained a new MaumeeRAP.org page, while developing a more robust draft CMS and template for the new MaumeeRAP.org website
  - Launched and maintained two new social media feeds specific to the AOC
  - Outreach and engagement, & supporting Aesthetics BUI with
    - 13<sup>th</sup> Annual Youth Patch Day (Mar) – over 70 local youth
    - Storm Drain Marking (GYSD-Sept) – over 140 volunteers, 652 drains
    - 11<sup>th</sup> Annual Get the Lead Out (June-Aug) – 35 volunteers, 17 recycling bins installed
    - 19<sup>th</sup> Annual Clean Your Streams (Sept) – 971 people, over 13,500 lbs
    - New programs to address Aesthetics BUI developed (i.e. CYS 365)
    - Posting 3 new signs informing public about the AOC
    - Prepared & used an AOC tabletop display while at multiple public events



PARTNERING FOR CLEAN STREAMS

- Assisted with hosting the US EPA AOC Conference in Toledo
- Boat Cruise on the Maumee River to discuss the challenges with the public, 50 people, front page Blade coverage
- Assisted MAAC and Ohio EPA with delisting one BUI
- Stayed informed of program guidance and direction
- Maintained dialogue between locals and Ohio EPA
- Assisted MAAC with a process to select and award a small grant from previous RAP SEP monies
- Maintained financial and structural documents
- Prepared reports for Ohio EPA
- Finished two significant grants related to BUIs and secured outside funding to support additional work towards Aesthetics BUI (accomplished through other funding sources)



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## Mapping Application for the Lower Maumee River

# MALMR

**Josh Miller**

USGS-Great Lakes Science Center

**Jeff Schaeffer**

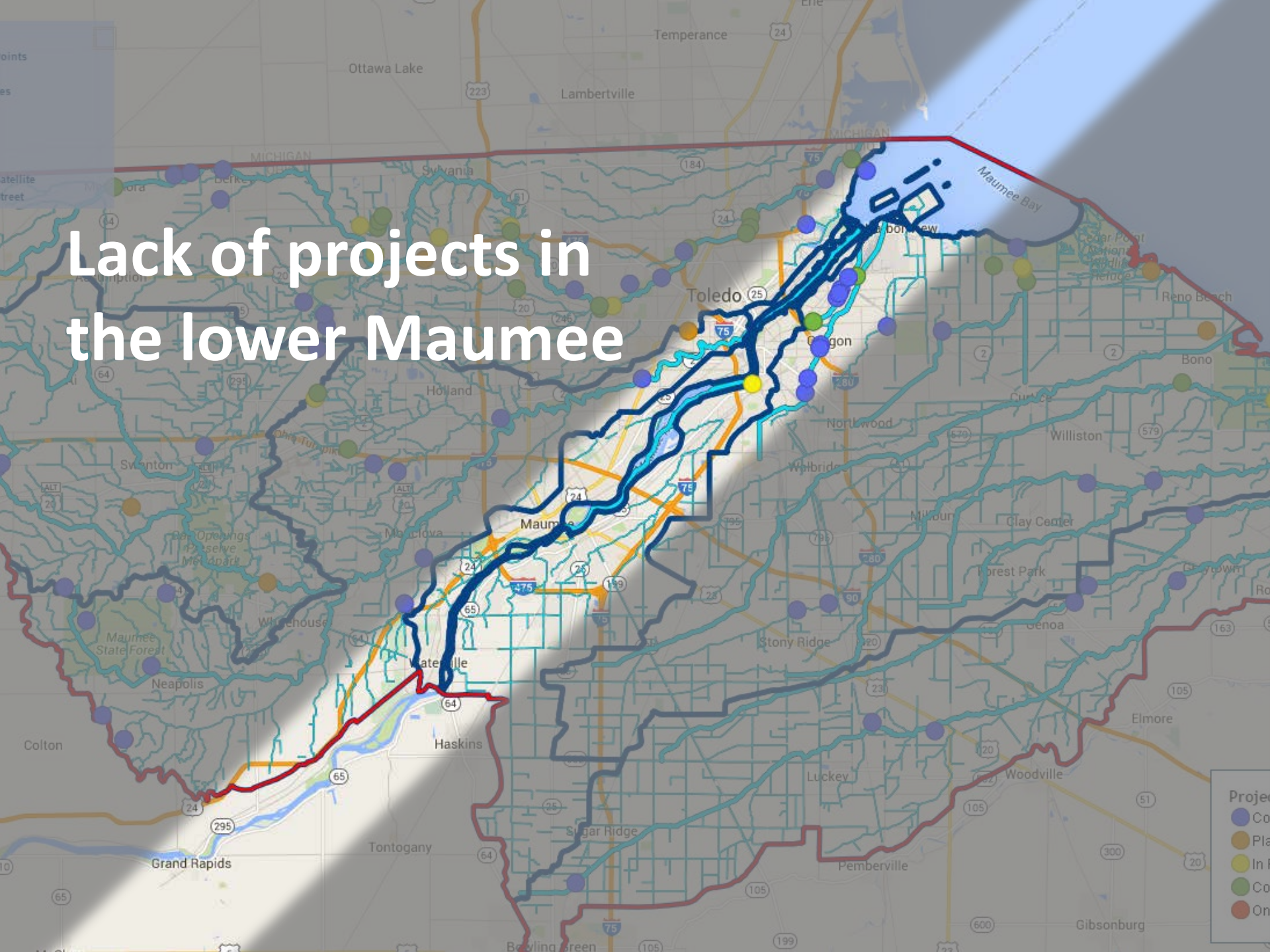
USGS-Great Lakes Science Center

**Justin Saarinen**

New College Florida



# Lack of projects in the lower Maumee





# MALMR

Mapping Application for the Lower Maumee River

A nautical chart showing magnetic variation lines and depth soundings. The letters 'M', 'A', 'U', and 'M' are visible in the background.

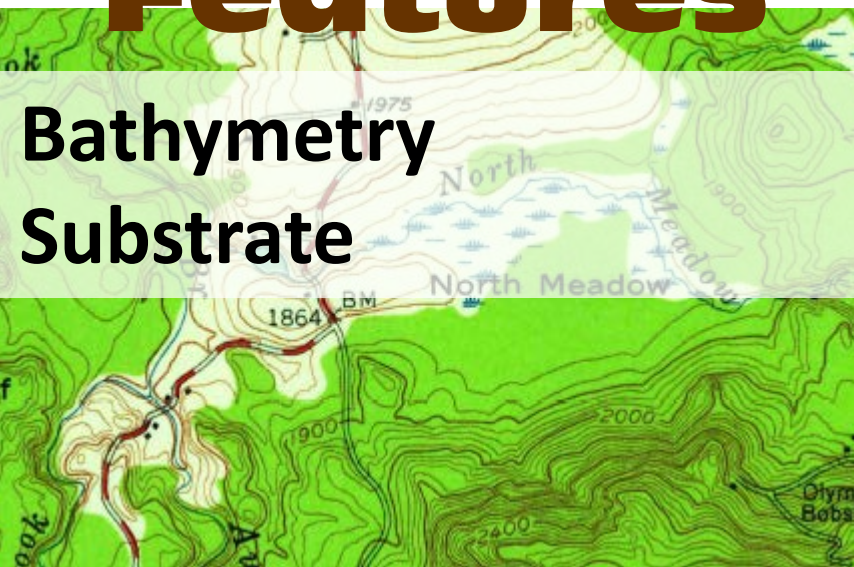
# MALMR

## Goals

1. Understand rivermouth ecology

“DUMB map”

### Features



&

“SMART map”

### Processes

- ~ flood cycle
- ~ seiche activity
- ~ sediment mixing
- ~ 4 dimensional



A nautical chart showing a coastal area with depth soundings, magnetic variation lines, and a yellow highlighted landmass. The letters 'M', 'A', 'U', and 'M' are visible in the background.

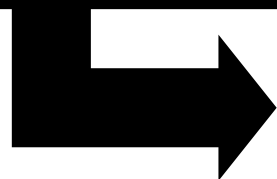
# MALMR

## Goals

1. Understand rivermouth ecology
2. Assist in identifying projects to remove BUIs

14 - Fish & wildlife habitat

03 - Fish & wildlife populations



**User-friendly web interface**

# MALMR

## Goals

1. Understand rivermouth ecology
2. Assist in identifying projects to remove BUIs
3. Export concept for use in other AOCs



A nautical chart showing a coastal area with depth soundings, magnetic variation lines, and a yellow highlighted area. The letters 'M', 'A', 'U', and 'M' are visible on the right side of the chart.

# MALMR

## Goals

1. Understand rivermouth ecology
2. Assist in identifying projects to remove BUIs
3. Export concept for use in other AOCs
4. Involve as many potential users as possible



# **Example Coastal wetland restoration tool**

# Western Lake Erie Restoration Assessment

# WLERA

Justin Saarinen  
Kurt Kowalski  
Ryan Keeling



# Western Lake Erie Restoration Assessment

# WLERA

Justin Saarinen  
Kurt Kowalski  
Ryan Keeling

Map Layers >

**Restoration Model**

☒ Normalized Restoration Index ⓘ

Parameters ▾

☒ Water Mask ⓘ

☐ Hydroperiod ⓘ

☐ Wetsoils ⓘ

☐ Flowline ⓘ

☐ Conserved Lands ⓘ

☐ Impervious Surfaces ⓘ

☐ Landuse ⓘ

**Reference**

☒ Study Area ⓘ

☐ Parcels 🔍 ⓘ

☐ Oblique Aerial Imagery 🔍 ⓘ

Hydro Conditioning ▾

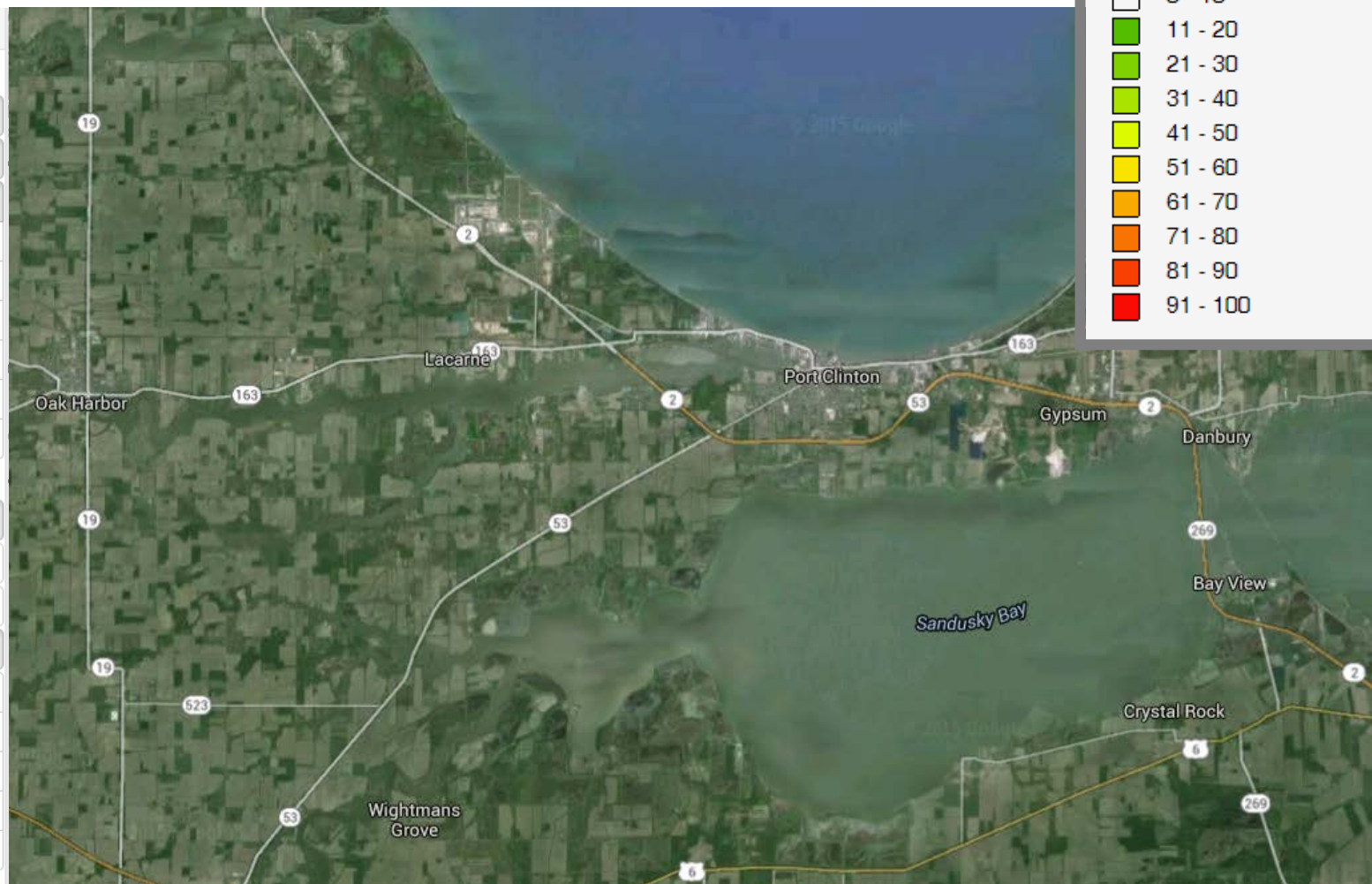
☐ Dike Breaks 🔍 ⓘ

☐ Culverts 🔍 ⓘ

☐ Degree Flowlines 🔍 ⓘ

☐ Dikes 🔍 ⓘ

☐ Diked Areas ⓘ

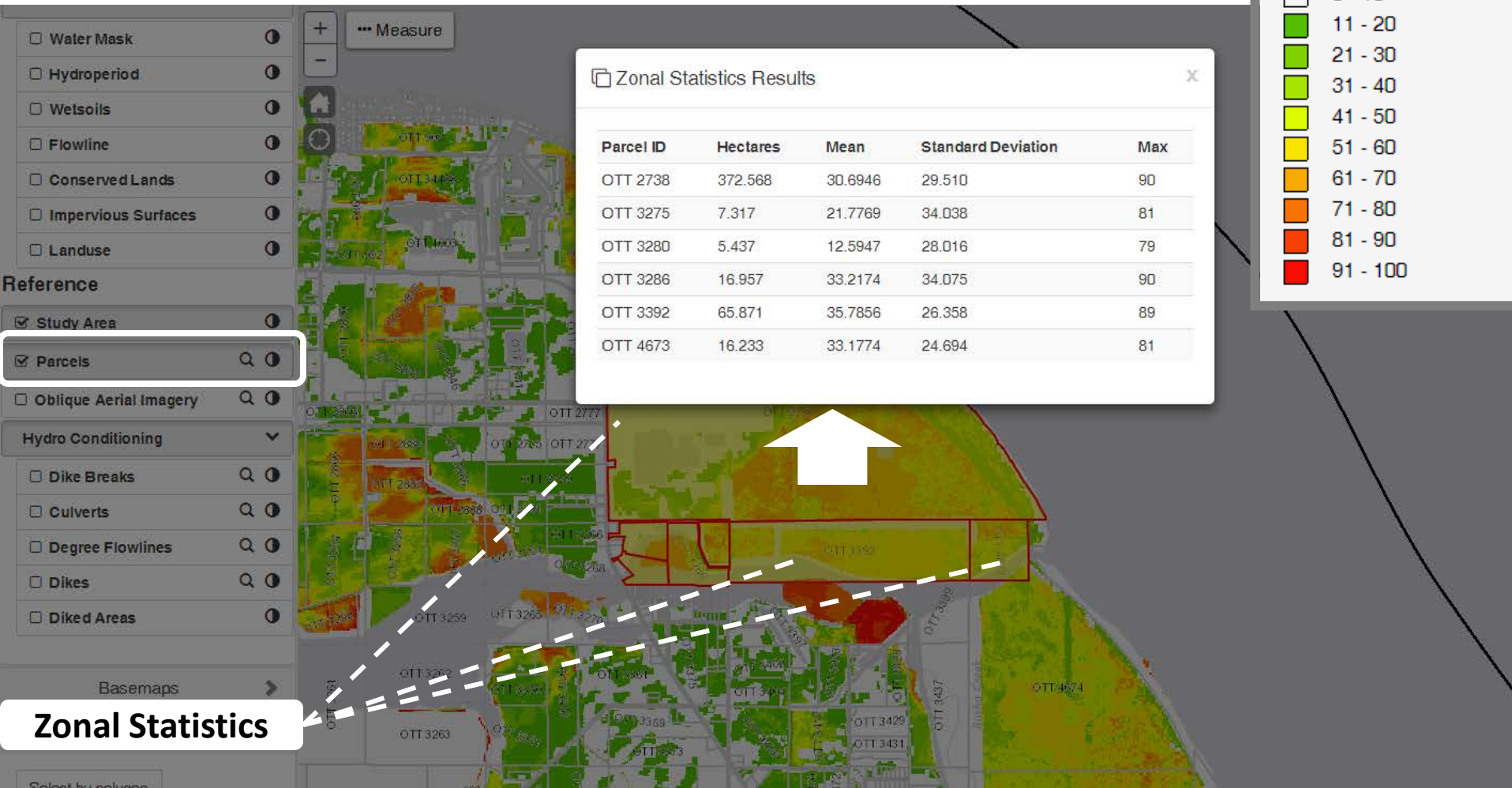




# Western Lake Erie Restoration Assessment

# WLERA

Justin Saarinen  
Kurt Kowalski  
Ryan Keeling



# WLERA

Drop it into the water  
Push it up the river



# MALMR

# Process

Jan 2016



Dec 2016

Stakeholder input on desired uses

Determine parameters, outputs, and app features

Develop restorability index(cies)

Generate application

Host workshops



**So . . .**

**Give me your contact info**

**or**

**Send me an email at  
joshuamiller@usgs.gov**



Thank you 