



Maumee RAP Summit Spring 2011

Wednesday May 4th, 2011 9:00am to 12:00pm Olander Park Nederhouser Community Hall

AGENDA

| 9:00-9:15am | Welcome and Introductions, also Maumee AOC updates (Patrick Lawrence) |
|---------------|--|
| 9:15-9:45am | Updates from PCS (Kristina Patterson) Upcoming PCS Activities Camp Miakonda Project |
| 9:45-10:45am | Presentations Oak Openings Restoration GLRI Project (Steve Woods) Scrap Yards GLRI Project (Marc Gerdeman and Matt Horvat) Ottawa River Workshops Overview (Patrick Lawrence) |
| 10:45-11:05am | Agency Reports US EPA (Frank Anscombe) US FWS (Kevin Tloczynski) TMACOG (Matt Horvat) |
| 11:05-11:15am | Break and Networking |
| 11:15-11:45am | Ohio EPA Report (Cherie Blair) Tenmile Crk/Ottawa River TMDL Ottawa River Contact & Fish Advisories 319 Pre-/Post- Project Sampling GLLA Site Characterization Projects Data Management and Delisting System development 2011 GLRI proposals submitted |
| 11:45-12:00pm | Other Partner Reports/Project Updates Closing comments and announcements |
| 12:00-1:00pm | Maumee RAP Advisory Committee meeting |
| | Next Maumee RAP Summit November 18 th , 2011 9:00am-12:30pm |

9:00am-12:30pm Location: TMACOG

PARTNERS FOR CLEAN STREAMS



ABOUT THE ORGANIZATION

By Kris Patterson, Executive Director

PCS AND MAUMEE RAP COMMITTEE

- Formed in 2007 grew out of the Maumee RAP Program
- A 501(c)3 non-profit community

organization

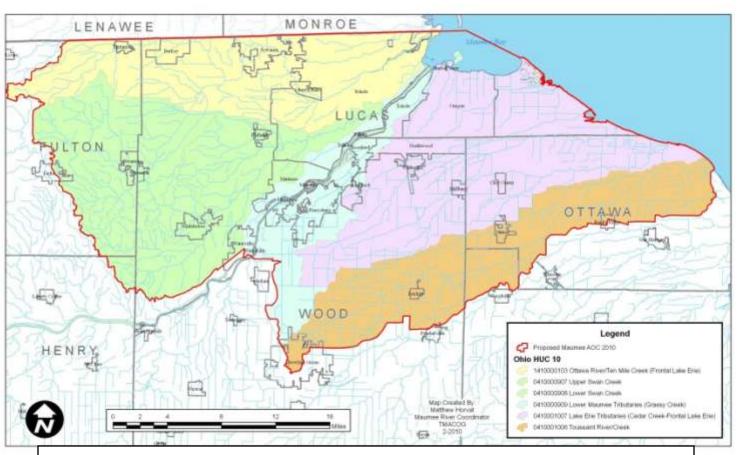




- Supports local and regional water quality improvements
- Maumee RAP Committee is nestled in PCS organization and works side-by-side with State and Federal RAP program

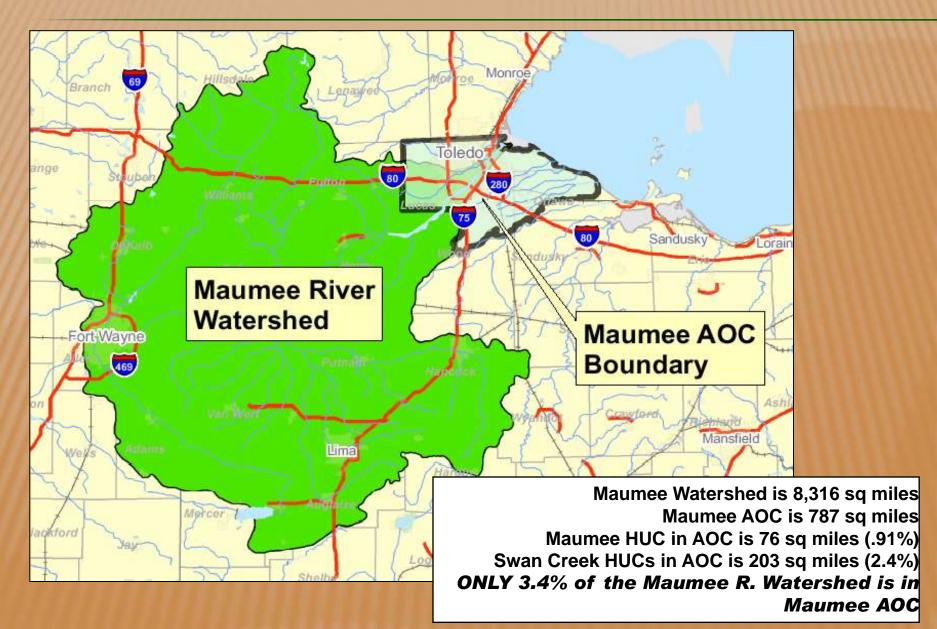


MAUMEE AREA OF CONCERN VS WATERSHEDS



Boundary was changed to 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 WATERSHED VS AREA OF CONCERN



WHAT DO WE DO?

By Kris Patterson, Executive Director

WHAT'S COMING UP??

Re-scheduled Storm Drain Stenciling events

- PCS Global Youth Service Day Rain Out (again)
- 7 jurisdictions participating
 - Events re-scheduled over the next few months
 - Contact Paige if you are interested
 - Great for Scouts, school service credit, church groups

7th Annual Get the Lead Out Events

- June and July, when the water levels lower
- Multiple Maumee River sites after the fishing runs
- Do-it-yourself kits provided, giving groups flexibility
- Great for adult service organizations (like Rotary, fishing/boating clubs, etc)





15th Annual Clean Your Streams – Save the Date: September 17th

8TH ANNUAL PARTNERING FOR CLEAN STREAMS YOUTH/SCOUT PATCH PROGRAM

Sunday, March 6, 2011

- PCS Workshop
- 86 total participants
 - 186 Girl Scouts
 - 4 Boy Scouts
 - 4 Other Youth

Saturday, April 17, 2011

- Global Youth Service Day
- Storm Drain Marking
- Nearly 80 pre-registered
- Rained Out in April
 - Groups already re-scheduling
 - Not too late to join!



6TH ANNUAL GET THE LEAD OUT! CLEANUP

May 21 to June 18, 2010

- Rescheduled to July due to high water
- 62 Total Participants
- Mostly fishing line and garbage





14TH ANNUAL CLEAN YOUR STREAMS DAY

September 11, 2010

- 665 Total Participants
- 50 land sites and 1 boat site cleaned
- 22,840 lbs (18,700 lbs garbage + 276 tires)
- Peculiar Items Found: gun safe, prom dress, koala statue, 18' boat w/motor, pipe organ, 1988 hunting license, antique ringer washing machine, parking tickets (5), Employee of the Month award, 1973 Pepsi can, book bag w/anatomy & biology books



OTTAWA RIVER WETLAND AND HABITAT RESTORATION PROJECT

at Camp Miakonda

CAMP MIAKONDA AND OTTAWA RIVER RESTORATION

- \$1.36 Million GLRI grant from US EPA
 - 2 year duration Sept 2010-Dec 2012
- Goals of restoration project
 - Restore/enhance approx. 10 acres & approx 30 acres associated
 - Reduce erosion & streambank restoration from 1200' of adjacent Ottawa River
 - Increase in-stream habitat for fish and macroinvertebrates



- Increase diversity of in-water habitat for Lake Sawyer, allowing fish to winter over and allowing more active use of Lake Sawyer by Scouts
- Encourage educational use of wetland, lake, river, and upland habitat
- Project contributes to BUI goals and improvements for BUI 14 Loss of Fish and Wildlife Habitat, BUI 3 - Degradation of Fish and Wildlife Habitat

PROJECT PHASES

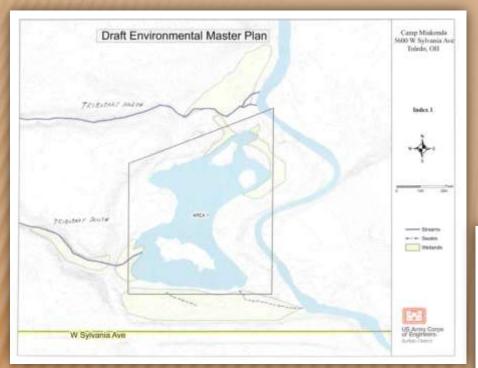
Phase 1 Study and Design

- 2007 Joyce Foundation funded a Wetland Identification and Restoration Plan for the Ottawa River and Swan Creek watersheds
- This study identified Camp Miakonda as a high restoration potential, high impact site so PCS began discussions
- With Boy Scouts interested in project, PCS secured an agreement with the Army Corp to pursue detailed study and concept plans (completed 2010)
- Agreement expanded to continue to develop detailed engineering and design plans for complex restoration

Phase 2 Implementation

- Fall 2009, PCS began searching for funding source for implementation
- ✗ GLRI application in late 2009, selected for funding in mid-2010
- Grant agreement signed in fall 2010, funding made available on a reimbursement-basis in late Nov.
- Construction planned for Sept 2011; however this is dependent on permits
- Second year would be adaptation, monitoring, and public outreach
- Phase 1 is ongoing co-current with
 Phase 2 until May 2011

CAMP MIAKONDA AND OTTAWA RIVER RESTORATION

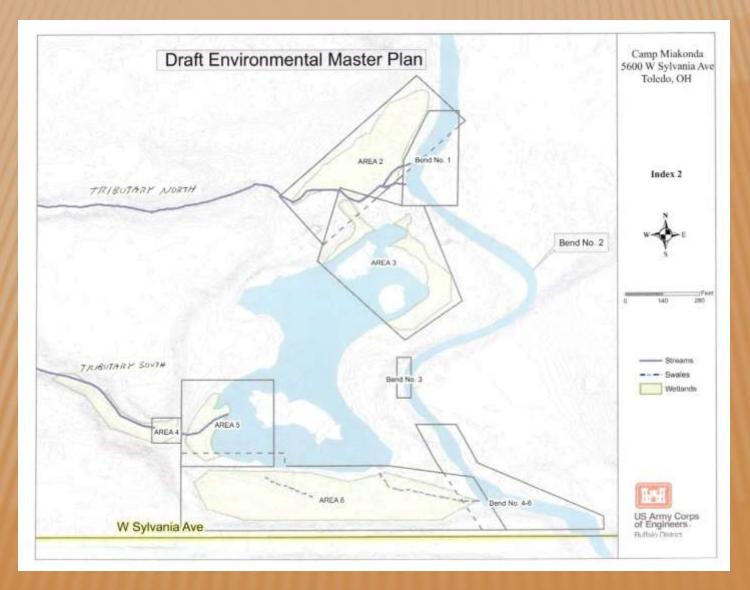


Improve surrounding wetland/upland areas and Ottawa River

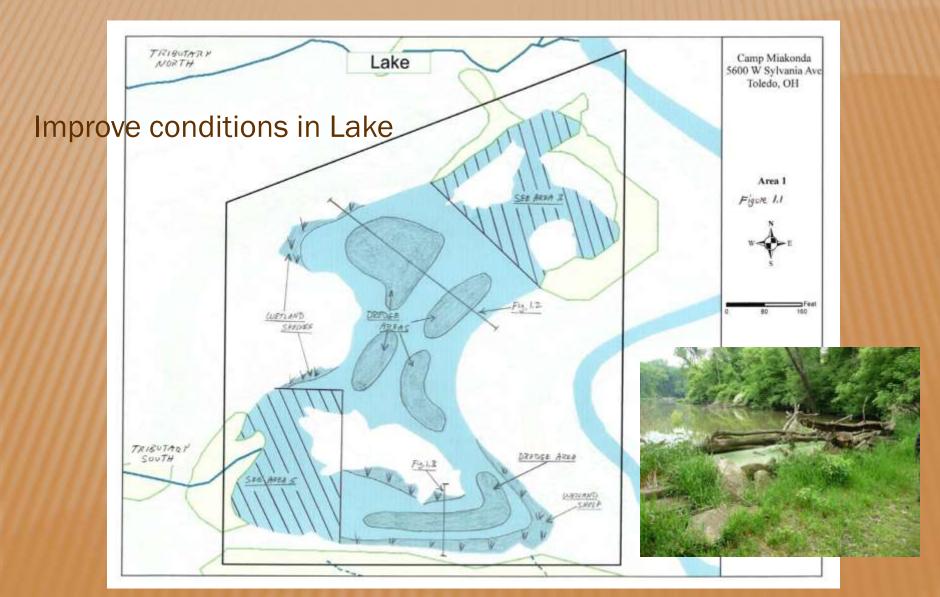
Improvement of Lake Sawyer



CAMP MIAKONDA AND OTTAWA RIVER RESTORATION



CAMP MIAKONDA AND OTTAWA RIVER RESTORATION



CAMP MIAKONDA AND OTTAWA RIVER RESTORATION



RESTORATION CONCEPTS

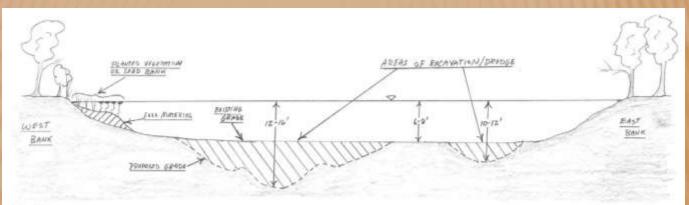


Fig. 1.2

Improvement of Lake Sawyer

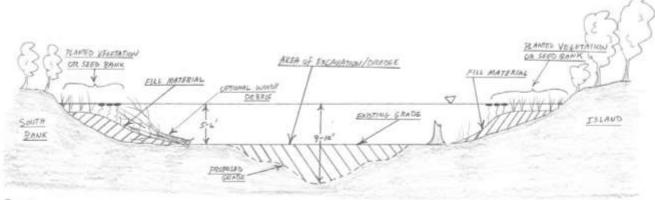
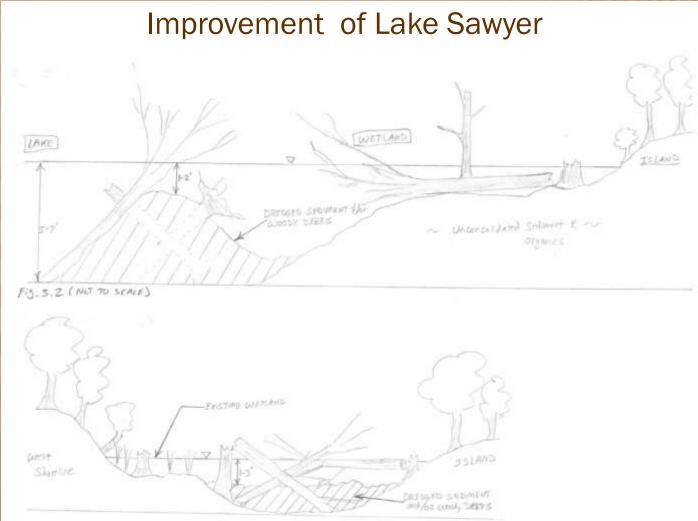


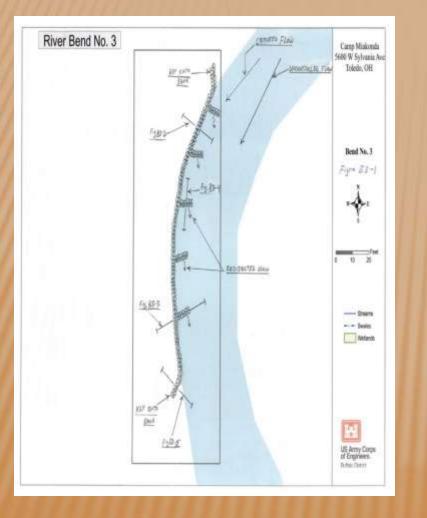
Fig. 1.3

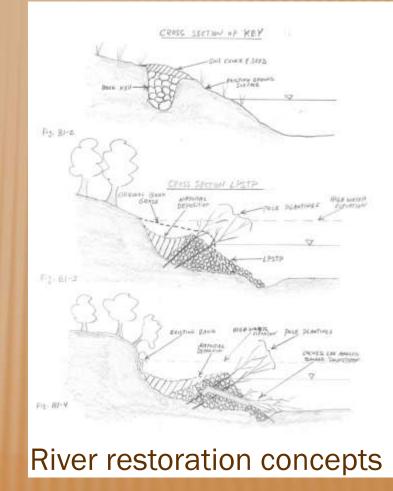
RESTORATION CONCEPTS



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RESTORATION CONCEPTS





CAMP MIAKONDA AND OTTAWA RIVER RESTORATION

Rubble piles between River & Lake Sawyer

Enhance wetlands



Address severe stream bank erosion

CONTACT US

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× Executive.Director@PartnersForCleanStreams.org

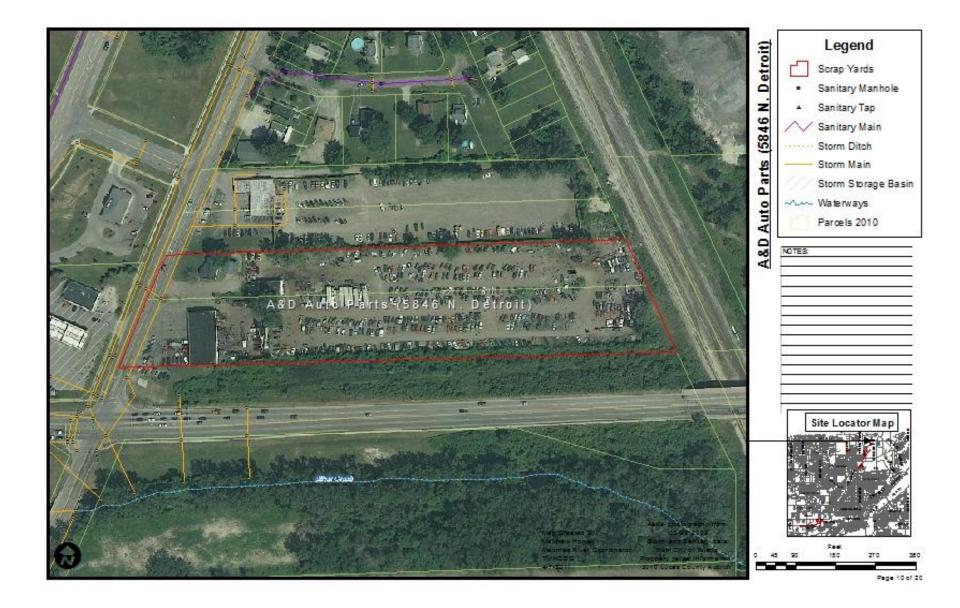
x www.PartnersForCleanStreams.org



City of Toledo GLRI Scrapyard Pollution Prevention Program (SYP3) Marc Gerdeman



Detailed Site Map



Restoring Wet Prairie in the Maumee AOC

A project by The Nature Conservancy for the Great Lakes Restoration Initiative

Restoring Wet Prairie in the Maumee AOC

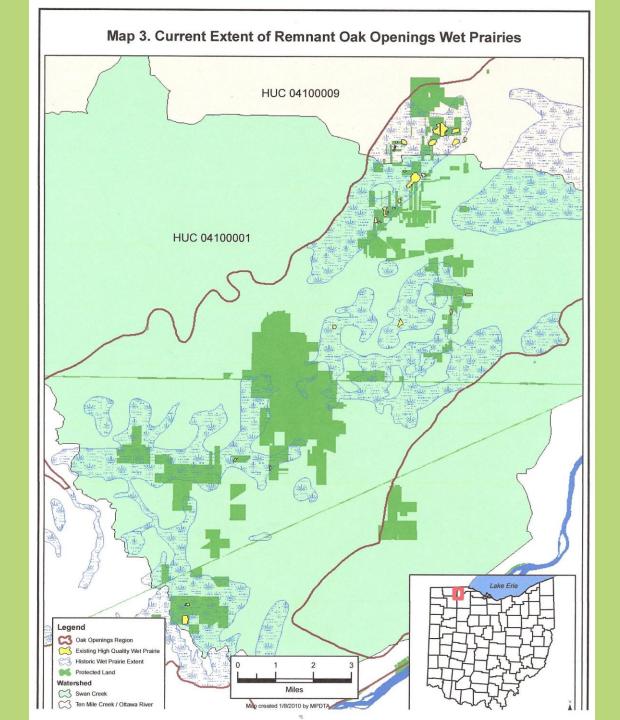
- Requested Amount: \$1,452,419.44
- Major Objective: Habitat related BUI's
 - Restore 444 acres of wet prairie and 157 acres of associated uplands
 - Apply at least 1300 acres of treatments
 - Determine effect of restoration on hydrology, amphibian and vegetative communities.

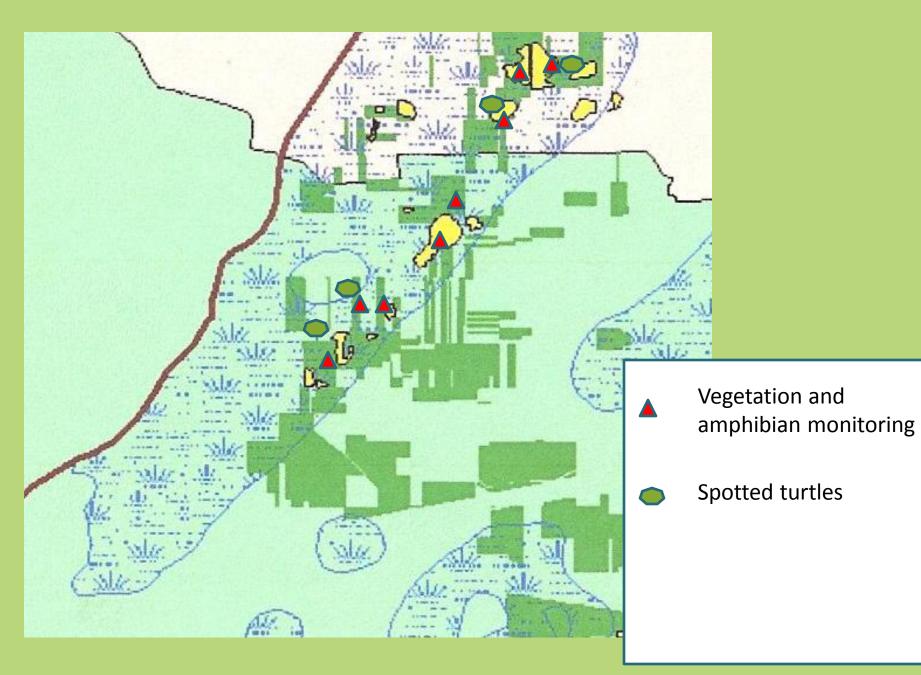
Why Wet Prairie?

- Identified by conservation planning as a priority
- Opportunity to address loss of habitat within the Maumee AOC at a landscape scale.
- Currently, wet prairies persist in <1% of their original expanse.
- Existing wet prairie remnants are heavily fragmented by land conversion and degraded by fire suppression and disruption of hydrology.

Restoration

- Hydro-ax shrubs
- Whole tree removal
- Targeted foliar treatments (multiple treatments)
- Burning

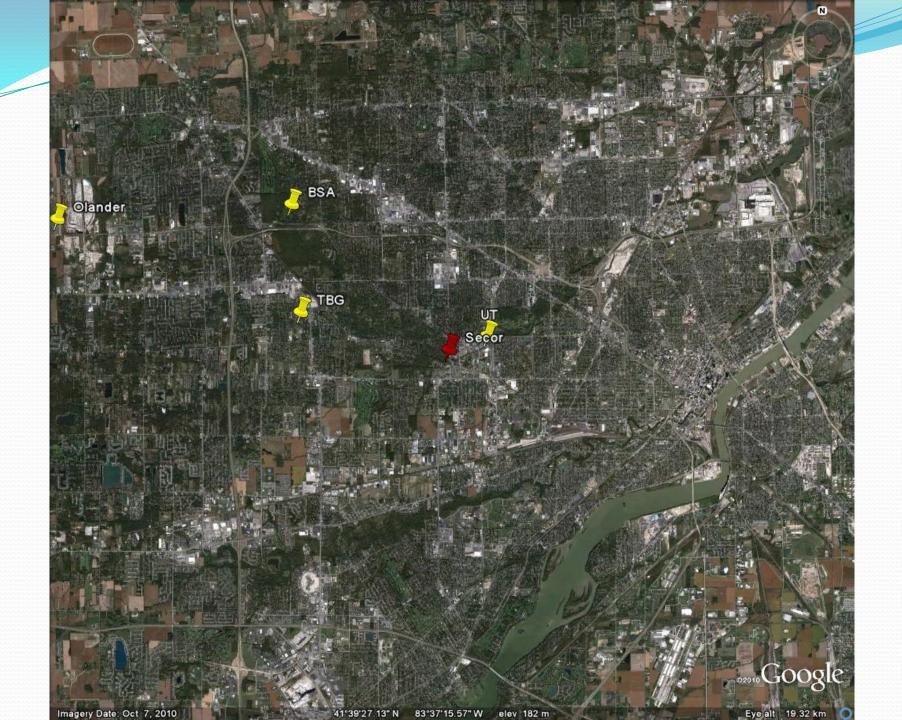




Accomplishments to date

- Sub-recipient awards in place
- Contracts in place for monitoring and restoration
- Personnel hired
- 20 acres of restoration treatments have been applied.

Aquatic, Wetland and Riparian Habitat Restoration projects in the Ten Mile Creek/Ottawa River Watershed 2011-2013



Toledo Botanical Garden Crosby Lake Dam Removal & Remediation Project Ohio EPA 319 NPS program







Poor Water Quality

• 1993 Ohio EPA Study: Area listed as impaired for aquatic life



Siltation



~ 29,000 cubic yards silt and fine sand sediments deposited in 21 years.





Remove two low-head dams

- Restore free-flowing stream (engineered natural channel)
- Install in-stream structure to reduce shear stress and stream bank erosion



Remove low-head dams (upper)





• Remove low-head dams (lower)

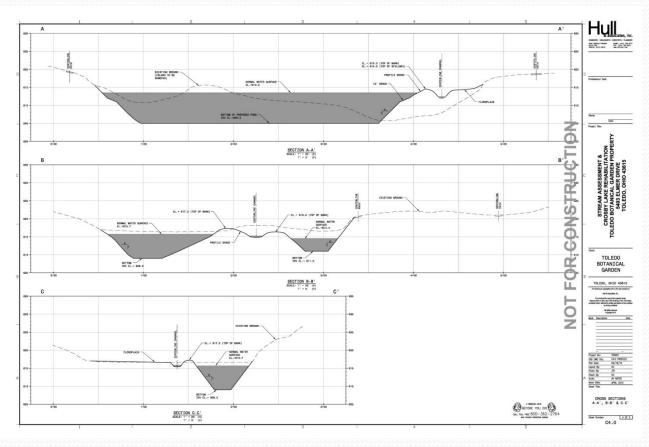




Results

- Restores natural flow of water and sediment
- Reduces erosion and sediment accumulation
- Restores pocket wetlands and shallow floodplains

Restore free-flowing stream – engineered natural channel







 Install in-stream structure to reduce shear stress and stream bank erosion

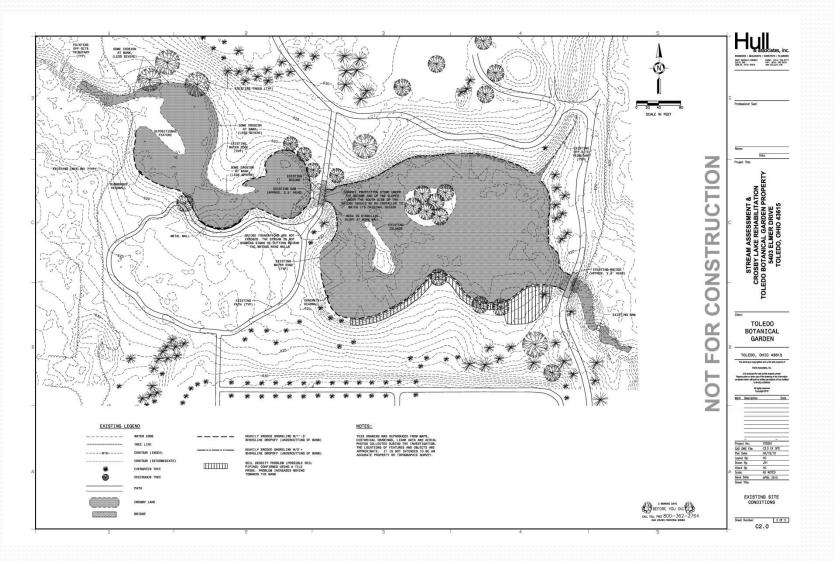




 Install in-stream structure to reduce shear stress and stream bank erosion



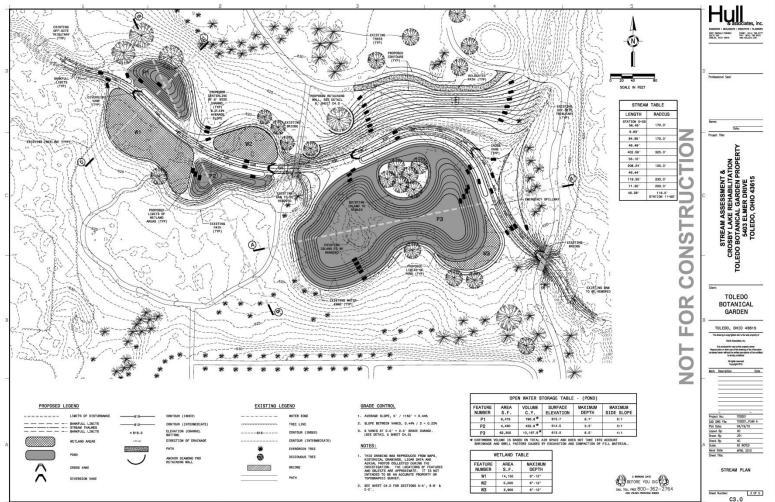
Current Site





Proposed Site







Toledo Botanical Garden

Karen Ranney Wolkins, Executive Director 419-536-5554

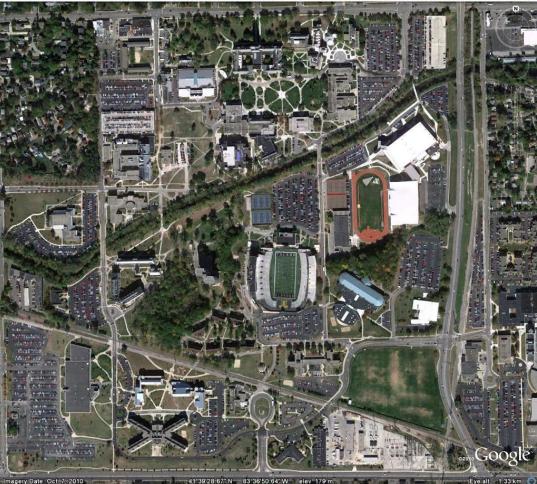
Josh Miller, Horticulture Manager 419-536-5537

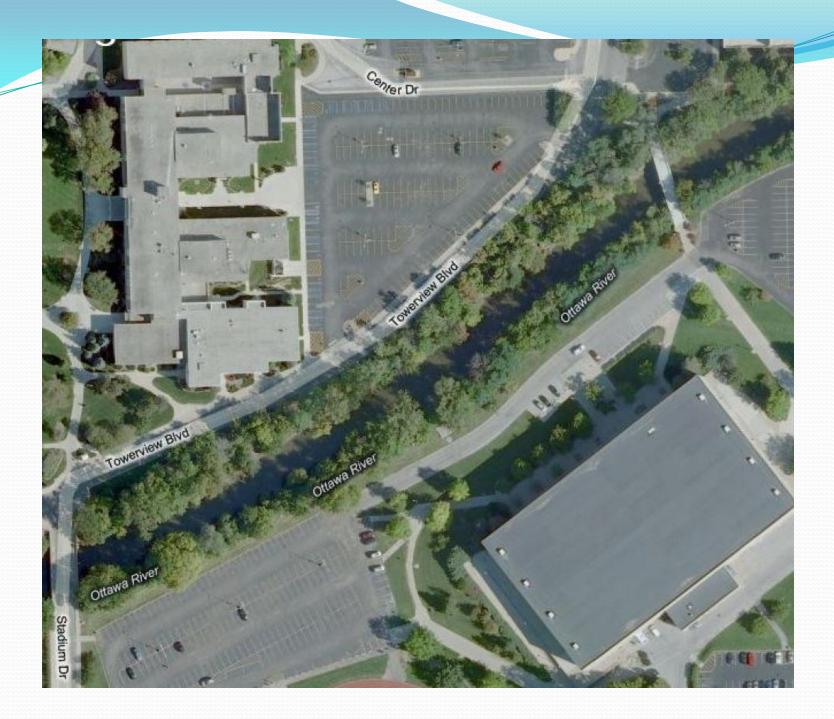
University of Toledo – Ottawa River

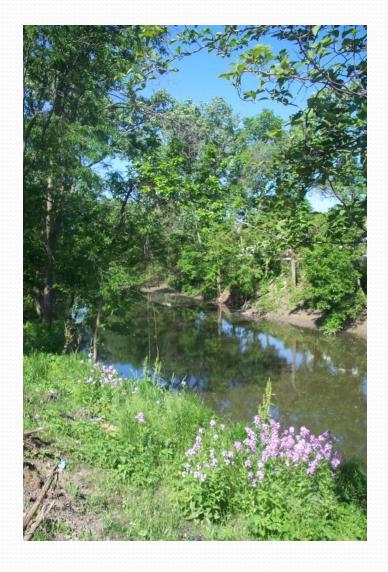
Patrick Lawrence (patrick.lawrence@utoledo.edu) UT President's Commission on the River TMACOG US ACOE Ohio EPA 319 NPS program Stranahan Foundation





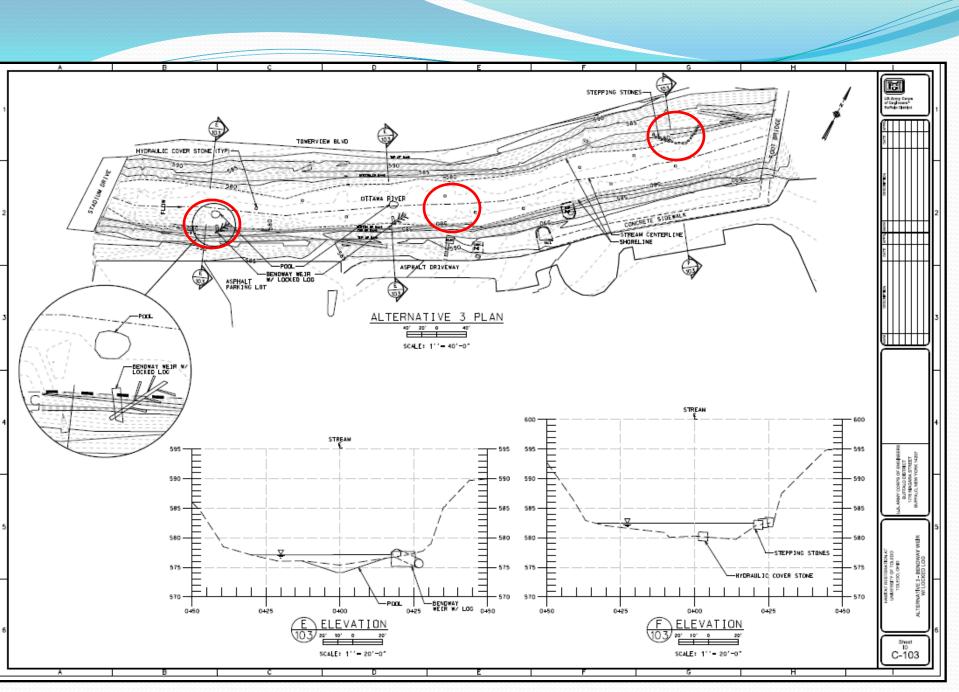


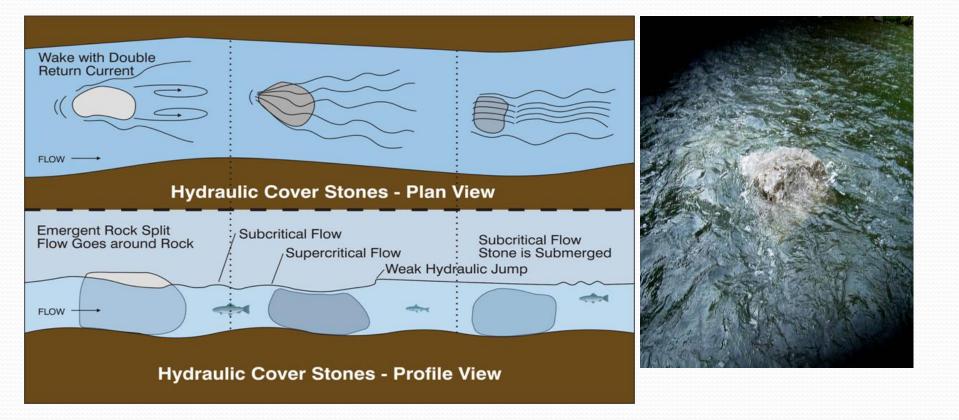










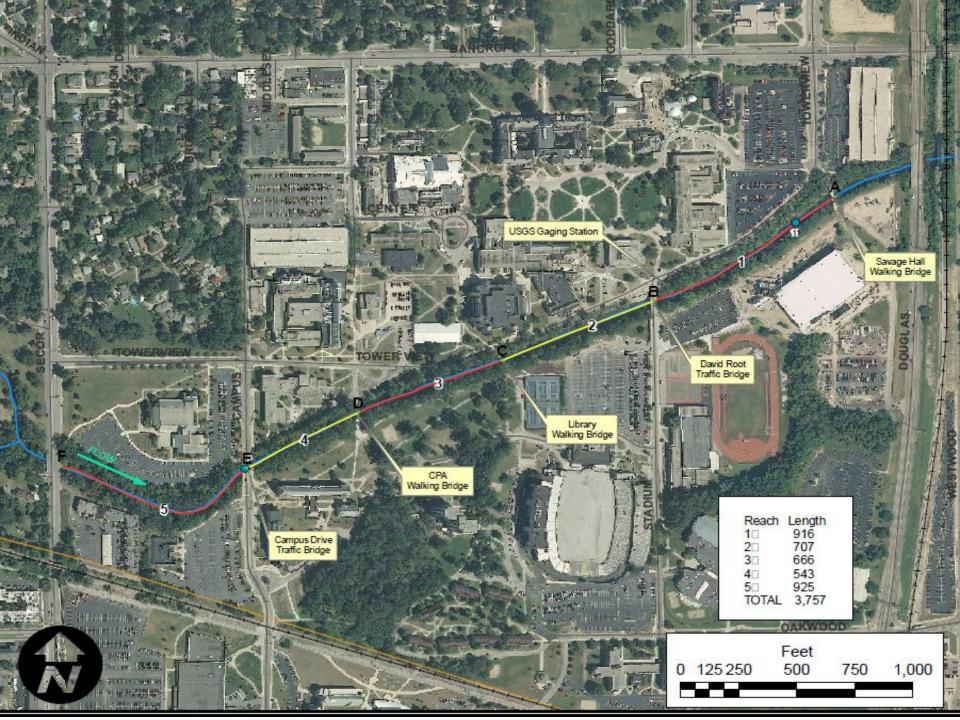












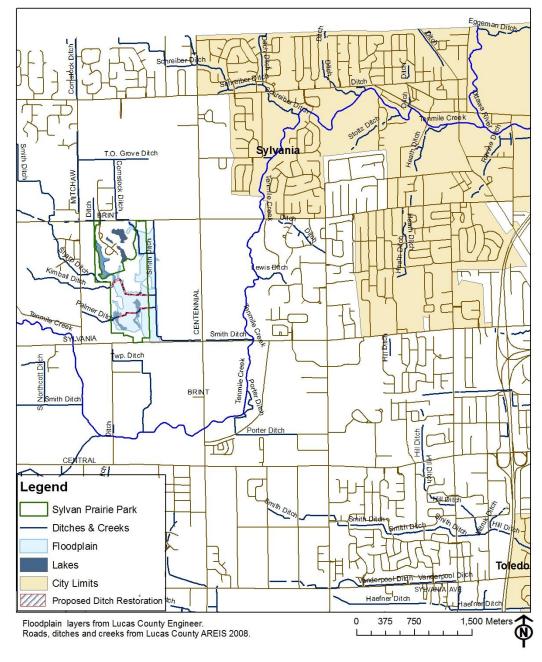
Restoration of Palmer Ditch and Kimball Ditch

Olander Park District

Erika Buri (eburi@olanderpark.com)



Sylvan Prairie Park Stream and Riparian Restoration Project



Project Deliverables:

•Restore 1,200 linear feet of floodplain and stream channel in Palmer Ditch with construction of an overwide channel.

•Restore streambank by recontouring and regrading 1,200 linear feet in Palmer Ditch.

•Remove/treat 2.2 acres of invasive species and plant native grasses in riparian area of Palmer Ditch.

•Plant 1.1 acres of trees, shrubs and/or live stakes in riparian area of Palmer Ditch.



•Restore 2,400 linear feet of floodplain and stream channel in Kimball Ditch with construction of an overwide channel.

•Restore streambank by recontouring and regrading 2,400 linear feet in Kimball Ditch.

•Remove/treat 4.4 acres of invasive species and plant native grasses in riparian area of Kimball Ditch.

•Plant 2.2 acres of trees, shrubs and/or live stakes in riparian area of Kimball Ditch.

Conduct public education and outreach

U.S. Fish & Wildlife Service Activities within the Maumee Area of Concern Kevin H.Tloczynski & Jo Ann Banda Fish & Wildlife Biologists Columbus Ohio Ecological Services Field Office U.S. Fish & Wildlife Service



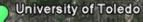
FWS Activities with the AOC

O Ottawa NRDA

Duck & Otter Creeks NR DA

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Swan Creek [GLRI]

Image © 2011 TerraMetrics

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Ottawa NRDA

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Duck & Otter Creeks NRDA

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University of Toledo

Swan Creek [GLRI]

Image © 2011 TerraMetrics

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

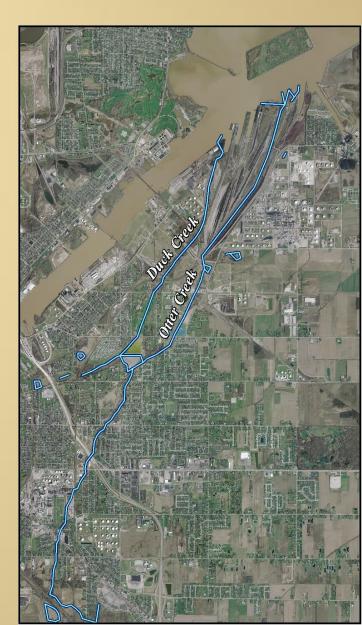
- Determine injury through time to natural resources due to a spill of oil or release of hazardous substance(s)
 Release → Injury
- Assess damages for injuries to recover and restore trust resources and their <u>services</u>
 Injury → Damages
- 3. Recover damages as \$\$\$ or projects

RDA in the Maumee AOC Ottawa River & Northern Maumee Bay Injury Assessment RM 0 Lower 9 Miles of Ottawa River Contaminants of Concern Maumee Bav Organochlorines, including PCBs RM Ottawa River • PAHs Metals RM₂ RM₃ • Natural Resources Surface water & sediments Benthic invertebrates Fish Sibley Creek Birds, mammals, **Fraleigh** Creek

& 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

O Ottawa NRDA

University of Toledo

Duck & Otter Creeks NR DA

Ma

2010

Swan Creek [GLRI]

Image © 2011 TerraMetrics

Funding Proposal for Maumee R. AOC

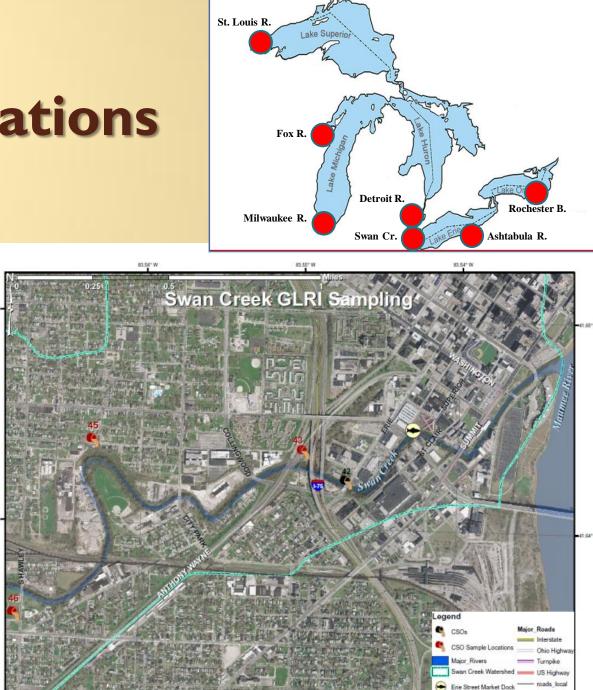
- Stream restoration along the Ottawa R. on UT's main campus
- Enhance Ohio EPA 319 grant project
- Create an additional 1,900 ft. of contiguous habitat
- Requested \$192,970
- Expect to know in the next couple weeks

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



83.54° W

Objectives

- Measure the concentration of up to 170 steroids, hormones, deodorizers, herbicides, disinfectants, prescription and nonprescription 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!

















TMACOG Projects/Proposals

- The Maumee Bay State Park beaches have an ongoing problem with e coli bacteria, and are posted as unsafe for swimming about 14 days per summer
- A Maumee Bay study with USGS indicates Wolf Creek (Berger Ditch) as the principal source of bacteria
- Oregon constructed three major sewer projects to eliminate hundreds of septic systems and several package plants from the watershed.
- The Wolf Creek Committee has recently completed a watershed restoration plan to protect the beaches by using a wetlands system to remove bacteria
 - Upstream ponds to settle out sediment, capturing bacteria and nutrients
 - Downstream wetlands using biological action to further reduce bacteria and nutrients

- Submitted a proposal to NOAA to <u>design</u> the wetland system and fulfill permitting requirements.
 - Lake Erie Center is the lead (\$400k)
- Submitted a proposal to EPA/GLRI to construct Lake
 - Erie Center is the lead (\$1.35M)
- Submitted a proposal to EPA/GLRI to repair/replace 40 septic systems using cost-share incentives.
 - Funding would be targeted to older systems, and those designed to discharge off lot.
 - TMACOG lead with Toledo/Lucas County Health Department (\$400k

Ohio EPA Report on Activities in the Maumee AOC

Maumee RAP Spring Summit Olander Park Nederhouser Community Hall May 4, 2011

Ohio Emissionenial Protection Agency

Today's Presentation

- Maumee AOC TMDLs
- **319 Pre-/Post-project Evaluation Sampling**
- Ottawa River Advisories
 Contact status change and Consumption sampling
- Great Lakes Legacy Act Projects
 - Duck and Otter Crks, Swan Crk, and Maumee River
- Data Management and Delisting System
- **•** FY 2011 GLRI Proposals

What Is a TMDL?

• Total Maximum Daily Load:

• The maximum amount of a pollutant a waterbody can contain and still maintain water quality standards

background load + point source load + nonpoint source load + margin of safety (allowance for future growth)

TMDL

Sampling to Assess a Watershed for TMDLs

- Physical habitat
- Water chemistry

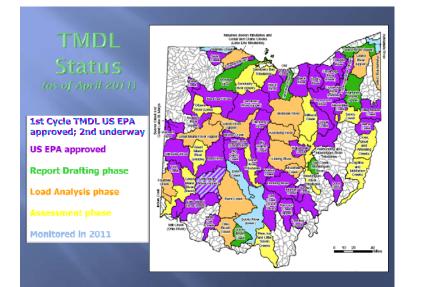


- Sediment chemistry
 Biological community health
- examine & count fish & aquatic insects



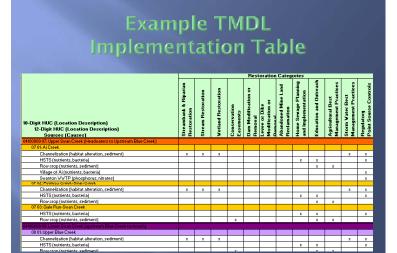




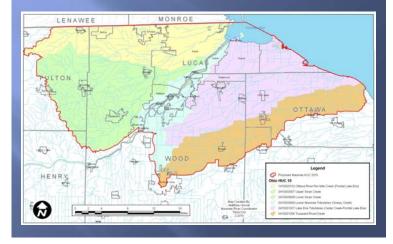


TMDL Reports

- **•** Format of report has evolved in recent past
- More "user friendly" for local implementers
- **•** Toussaint TMDL report is in original format
- Swan, Maumee Tribs, Lake Erie Tribs, and Ottawa will be/are in the new format
- Implementation chapter is shorter more specific recommendations
- Easier to link impaired streams to relevant actions to restore/protect water quality



Maumee Area of Concern



TMDLs in the Maumee AOC

Toussaint/Packer (assessed in 2003)

- Report approved by USEPA on September 2006
- TMDLs for phosphorus, sediment and habitat

Swan Creek (assessed in 2006)

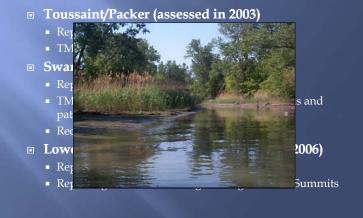
- Report approved by US EPA in January 2010
- TMDLs for sediment, nitrate-nitrite, phosphorus and pathogens
- Recommendations for improved habitat
- **Lower Maumee Tributaries (assessed in 2006)**
 - Report being drafted now
 - Reporting and information gathering via AOC Summits

TMDLs in the Maumee AOC



TMDLs in the Maumee AOC Toussaint/Packer (assessed in 2003) Rep Twi pat Rep Twi pat Rep Rep Rep Rep Rep Tube Tube

TMDLs in the Maumee AOC



TMDLs in the Maumee AOC

Lake Erie Tributaries (assessed in 2008)

- Report currently being drafted by TetraTech using Ohio EPA collected data
- Had a report on Watershed Characterization and Source Assessment at last Summit
- Expect another report/update at Fall Summit (Nov. 18)
- Public involvement via AOC Summits and demonstration sessions (TBA)
- Tenmile Crk/Ottawa River (assessing in 2011)
 - Study plan and sampling sites being finalized
 - TSD expected Spring '13; TMDL Rpt expected Winter '13

TMDLs in the Maumee AOC

Lake Erie Tributaries (assessed in 2008)



TMDLs in the Maumee AOC



Ohio EPA 319 Grant Projects

- **Ohio EPA samples pre-/post-project for 319 grants**
- The type of sampling (habitat QHEI, bugs, fish, etc.) will depend on the type of project implemented
- Pre-project sampling will be done this summer for:
 - The Olander Park System Palmer & Kimball Ditches
 - Toledo Botanical Gardens Hill Ditch & Crosby Lakes
 - University of Toledo mainstem Ottawa R. on Campus
- Post-project sampling will be done this summer for:
 - TMACOG mainstem Ottawa River in Ottawa Hills



Ottawa River Consumption Advisory

Evaluation of Consumption Advisory

- Ohio EPA will collect fish tissue samples to determine if the consumption advisory can be reduced or removed; this may require two consecutive years of data depending on results.
- These samples will be in addition to the TMDL assessment sampling. They will be evaluated separately; however they may be collected at the same sampling locations.
- The Consumption Advisory will be evaluated in conjunction with and issued by the Ohio Dept of Health.



Ottawa River Contact Advisory

- On April 24, 2011 a portion of the Ottawa River Contact Advisory was rescinded
 - Based on review of old data and the history of the advisory, ODH determined that the advisory should only extend from the mouth to the first I-475 bridge crossing (RM 8.6).
- Confirmation of Contact Advisory removal
 - Ohio EPA will collect sediment samples to confirm the removal of the contact advisory based on current data.
 - These samples will be in addition to the TMDL assessment sampling. They will be evaluated separately; however they may be collected at the same sampling locations.
 - The Contact Advisory will be evaluated in conjunction with and issued by the Ohio Dept of Health.

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GLLA Site Characterization Sampling

- Site Characterization sampling will be done by US EPA under the Great Lakes Legacy Act
- Duck and Otter Creeks (Mudpuppy II)
 - Sampling started fall/winter 2010 at the confluence of the mouths of the Creeks and Maumee Bay
 - Sampling will conclude this month



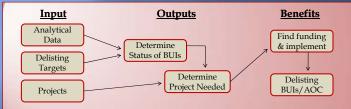
GLLA Site Characterization Sampling

- Swan Creek (smaller boats/wading)
 - Sampling will be conducted from Hawley St. to the mouth of the river (approximately 2 miles) in June
- Maumee River (Mudpuppy II)
 - Sampling will be conducted from near Walbridge Pk to I-280 Bridge (approximately 5 miles) in June
 - Additional sampling is tentatively planned from I-280 Bridge into Maumee Bay for summer 2012
 - The Maumee River projects do not intend to sample within the dredged shipping channel

Data Management and Delisting System

- US EPA has funded the development of a database to manage analytical data and guide the determination of projects needed for two AOCs: Maumee and Grand Calumet.
- Ohio EPA has requested GLRI funding to expand this system across Ohio's AOCs and to integrate it with the data/mapping capabilities of our website.
- The initial database is expected this year, with full integration (if funded) over the next few years.

Data Management and Delisting System



- Database and website (if funded) will be maintained by Ohio EPA 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.

FY 2011 GLRI Applications



- US EPA released an RFA (request for applications) on Feb. 25 with a deadline of April 11.
- This RFA required more complete grant requests than last year's RFP (request for proposals), so US EPA could make awards more quickly.
- US EPA reports receiving 275+/- applications this year for the \$40 million that is available.
- Last year they received 1200+ proposals for \$120 million
- 35 applications were identified by the Ohio Lake Erie Commission as having been submitted from/benefitting Ohio. (see handout)

FY 2011 GLRI Applications



- Of those identified by OLEC, these four work toward restoration of the BUIs of the Maumee AOC:
 - Ottawa River: Toxics Reduction in a Category 3 Wetland
 - Wolf Creek: Passive treatment wetland to improve nearshore health & reduce nonpoint source pollution
 - Wolf Creek: Reducing Fecal Bacteria
 - Wolf/Maumee/Ottawa: Green Infrastructure Project
- Ohio EPA submitted 2 projects that will benefit the Maumee AOC:
 - Brown Bullhead and DELT study
 - DMDS and Technical Support for GLLA/NRD initiatives

FY 2011 GLRI Applications



Other Projects from our Area:

- Long-term Phragmites Control through the Lake Erie CWMA (Cooperative Weed Management Area)
- Rapid and Accurate eDNA Invasive Fish Species Detection Kit
- Ohio Balanced Growth Endorsed Watershed Plan Implementation
- GLAMS: Great Lakes Algae Monitoring System
- ALSO 2 TNC projects in the Maumee AOC were asked for full proposals from Sustain our Great Lakes (SOGL)
- Good luck to all who submitted!

Questions

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