

# Black River Watershed AOC

## **Beneficial Use Impairment Status**

Presented by:

Ted Conlin, Ohio EPA

# Black River AOC Impairments by major sub-basins

- **Mainstem (9 BUIs)**
  - Fish Consumption
  - Fish Populations
  - Fish Tumors (In Recovery)
  - Benthos
  - Dredging
  - Eutrophication
  - Recreational Use
  - Aesthetics
  - Fish & Wildlife Habitat
- **French Creek (5 BUIs)**
  - Fish Populations
  - Benthos
  - Recreational Use
  - Aesthetics
  - Fish & Wildlife Habitat
- **West Branch (7 BUIs)**
  - Fish Consumption
  - Fish Populations
  - Benthos
  - Algae (Findley Lake)
  - Recreational Use
  - Aesthetics
  - Fish & Wildlife Habitat
- **East Branch (6 BUIs)**
  - Fish Consumption
  - Fish Populations
  - Algae (Grafton & Brentwood)
  - Recreational Use
  - Aesthetics
  - Fish & Wildlife Habitat

# Delisting Criteria

## ❑ **Fish Consumption**

This beneficial use shall be listed as impaired if an advisory or restriction to fish consumption of one meal per month (or more stringent) is imposed by the Ohio Department of Health **and** is due to sources within the AOC.

## ❑ **Fish Populations**

This beneficial use shall be listed as impaired if Ohio EPA surveys or other studies report significant non-attainment of Ohio fish community biological indices due to a cause within the watershed.

## ❑ **Fish Tumors**

This beneficial use shall be listed as impaired if DELTs (Deformities, Eroded Fins, Lesions and Tumors) percentages exceed 0.5%, or other tumor incidence levels exceed those outlined below and are due to contaminant sources within the boundaries of the AOC.

## ❑ **Benthos**

This beneficial use shall be listed as impaired if Ohio Environmental Protection Agency surveys report a significant departure from macroinvertebrate community biological criteria or guidelines due to sources or causes within the AOC.

## ❑ **Dredging**

This beneficial use shall be listed as impaired if contaminants in sediment exceed sediment quality guidelines used by the State such that there are restrictions on navigational dredging or disposal activities.

## ❑ **Eutrophication/Algae**

This beneficial use shall be listed as impaired if dissolved oxygen levels do not meet minimum criteria established in Ohio WQS for the stream segment of concern, and the cause is due to excessive nutrient loading or high BOD (biochemical oxygen demand) and/or Nutrients entering the waters as a result of human activity create nuisance growths of aquatic weeds and/or algae.

## ❑ **Recreational Use**

This beneficial use shall be listed as impaired if specific bacteria concentrations for specific recreational use designations are exceeded during the recreational season

## ❑ **Aesthetics**

This beneficial use shall be listed as impaired if any of the five "free froms" designated in the OAC are not being met.

## ❑ **Fish/Wildlife Habitat**

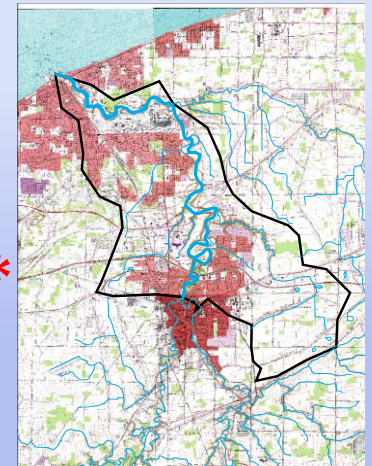
This beneficial use shall be listed as impaired if:

- **For Fish Habitat:** Habitat quality, as applicable and measured by the Qualitative Habitat Evaluation Index (QHEI), averages below a score of 60 throughout the free-flowing stream stretches of the AOC; An assessment of the nearshore, harbor or lacustrary areas using the Lake Erie QHEI methodology indicates impairment; or Ohio Aquatic Life WQS are not being met **or** Fish management officials identify loss of or poor quality habitat as cause for non-attainment with fishery goals.
- **For Wildlife Habitat:** Wildlife management officials identify loss of or poor quality habitat as cause for non-attainment with wildlife goals.

# Mainstem

- **Fish Consumption:** 3 fish species
  - **Large Carp:** Similar to LE Carp but not identical size, no impairment likely??
  - **Smaller Carp:** Same as LE Carp so no impairment
  - **Freshwater Drum:** Same for PCBs but Black River Drum include PCB (?)
- **Fish Populations:** Most 'current' data shows ~ 88% of delisting criteria \*
- **Fish Tumors:** In Recovery Phase \*
- **Benthos:** Most 'current' data ~ 75% of delisting criteria, unknown if river can meet current delisting criteria \*
- **Dredging:** Improving, State of Ohio may consider this to be In Recovery
- **Eutrophication:** Unknown if river can meet current delisting criteria
- **Recreational Use:** Improving
- **Aesthetics:** Unknown
- **Fish & Wildlife Habitat**
  - Fish habitat indices are about 75% of delisting criteria \*
  - State's wildlife delisting criteria under review.

\* New assessments planned for 2012



The improvements recently made by the City of Lorain are sure to positively affect certain mainstem BUIs like:

- Fish populations
- Benthos
- Aesthetics
- Fish/Wildlife Habitat

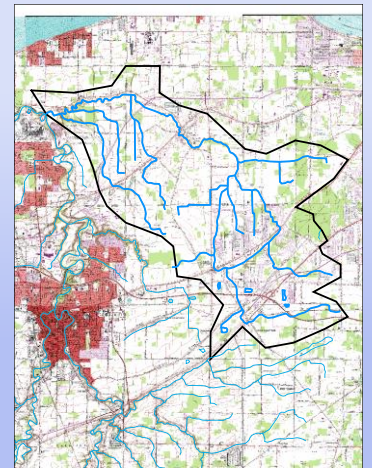
But the improvements will have to be assessed and scientifically proven.

Assessments are planned for this summer by both the City and Ohio EPA.

# French Creek

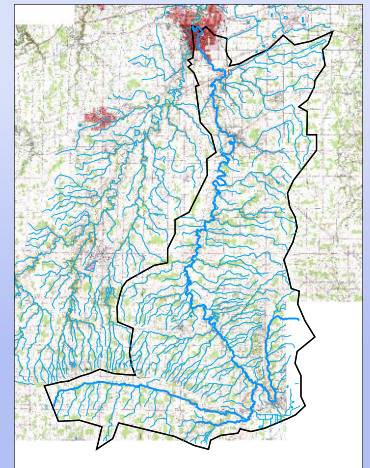
- **Fish Populations:** Most 'current' data shows ~ 85% of delisting criteria \*
- **Benthos:** Very limited data \*
- **Recreational Use:** Improving
- **Aesthetics:** Unknown
- **Fish & Wildlife Habitat**
  - Fish \*
    - Mouth to RM 6.9 meets delisting criteria
    - Upper reaches are only 72% of delisting criteria
  - State's wildlife delisting criteria under review.

\* New assessments planned for 2012



# East Branch

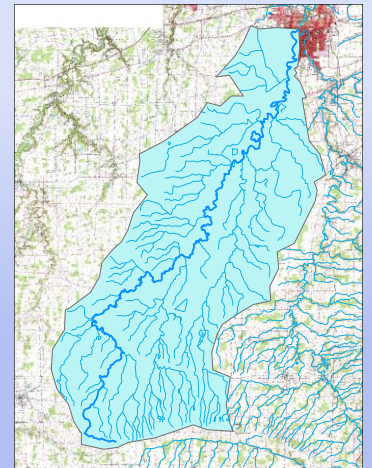
- **Fish Consumption:** 3-4 fish species, advisories posted due to Hg
  - Rock Bass, Smallmouth Bass & Yellow Bullhead: Most of EB
  - Common Carp > 23": Middle EB
- **Fish Populations:** \*\*\* Meets delisting criteria \*\*\*
- **Undesirable Algae:** \*\*\* Likely meets delisting criteria \*\*\*
  - Upgrade to Grafton WWTP relieved algae problem downstream of plant
  - Removal of Brentwood dam
- **Recreational Use:** Improving
- **Aesthetics:** Unknown
- **Fish & Wildlife Habitat**
  - \*\*\* Fish meets delisting criteria \*\*\*
  - State's wildlife delisting criteria under review



# West Branch

- ❑ **Fish Consumption:** White Sucker in WB plus Largemouth Bass in Findley Lake
- ❑ **Fish Populations:** Most 'current' data shows within 90% of delisting criteria \*
- ❑ **Benthos:** Most 'current' data is limited but meets delisting criteria \*
- ❑ **Undesirable Algae:** New assessment needed for Findley Lake
  - Upgrade to ODNR WWTP may have relieved algae problem
- ❑ **Recreational Use:** Improving
- ❑ **Aesthetics:** Unknown
- ❑ **Fish & Wildlife Habitat**
  - Fish about 90% of delisting criteria \*
  - State's wildlife delisting criteria under review.

\* New assessments planned for 2012





# BUIs Impaired throughout the watershed AOC

- Fish Populations \*
- Recreational Use
- Aesthetics
- Fish \* and Wildlife Habitat

\* New assessments planned for 2012

# \* New assessments planned by Ohio EPA for 2012 \*

- Fish Tumor BUI
  - Tumor Studies in Black, Cuyahoga and Maumee AOCs
- Fish Populations, Fish Habitat , Benthos & Fish Consumption BUIs
  - 'Comprehensive' assessment of watershed AOC by Ohio EPA
  - Assessments by City of Lorain
- Undesirable Algae BUI
  - Algae study of Findley Lake

BUIs common to all areas  
✓ Fish Populations  
✓ Fish Habitat

Other 'common' BUIs  
❖ Recreational Use  
❖ Aesthetics

# Other plans

- Ohio EPA is reviewing all AOC delisting criteria
  - Likely that major changes will be made to Wildlife Habitat BUI criteria
  - Others???
- Watershed Action Plan for upper watershed areas
  - Success of WAP would have positive effects but would need sustainable funding for Local Watershed Coordinator
    - Could help the 'common' Recreational Use BUI

# A suggestion for RAP Coordinating Committee

- Aesthetics: A specific review of listing/delisting criteria for this BUI is needed for our specific AOC
  - Aesthetics BUI is listed as impaired for entire watershed AOC
  - Are the state's listing/delisting criteria for this BUI:
    - Practical
    - Attainable
    - Measurable
    - Representative of why the original RAP Coordinating Committee listed Aesthetics as impaired throughout the AOC
- Should a sub-committee be formed to look at this?