

# **NORTHEAST OHIO FOUR COUNTY REGIONAL PLANNING AND DEVELOPMENT ORGANIZATION**

## **Little Cuyahoga River Action Plan – Phase I Preliminary Report**

**October 2010**

The preparation of this report was financed in part through a water quality management planning grant provided through the State of Ohio Environmental Protection Agency from FFY 2009 604b funds, and with funds from NEFCO's dues-paying members.

This report is submitted in fulfillment of Outcome Units #1-3, from NEFCO's Scope of Work, Exhibit 1-A of NEFCO's water quality management contract with the Ohio EPA. The scope calls for NEFCO to initiate the first phase of an action plan for the Little Cuyahoga River Watershed; activities to include establishing a watershed group, and documenting watershed issues; hold at least two Little Cuyahoga River Watershed public meetings; and assemble available GIS layers of the Little Cuyahoga River Watershed including physical and cultural factors.

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## **A. Purpose**

The purpose of the Little Cuyahoga River Action Plan Phase I was to conduct a preliminary analysis on the watershed to determine if a full-scale watershed plan is warranted and feasible. NEFCO's Phase I efforts resulted in a summary of the current water quality conditions; investigation of past and future water quality improvement work; completion of basic watershed mapping; analysis of the watershed's land uses and impervious areas; and the convening of a public meeting to discuss NEFCO's findings and future watershed planning needs.

## **B. Watershed Overview**

The Little Cuyahoga River is a 17.4 mile long tributary to the Cuyahoga River. It is located in southeast Summit County and southwest Portage County (Figure B-1). The 61.7 square mile watershed drains portions of the City of Akron, City of Tallmadge, Springfield Township, Village of Lakemore, Village of Mogadore, Brimfield Township, Suffield Township, and Randolph Township. The watershed has six primary tributaries: Ohio Erie Canal, Camp Brook, Springfield Lake Outlet, Roosevelt Ditch, Union Oil Tributary, and Wingfoot Lake Outlet. The watershed also contains Springfield Lake, Mogadore Reservoir, and Wingfoot Lake (Figure B-2).

The Little Cuyahoga River is an urban stream currently not meeting state water quality standards for biological and recreational uses. The Ohio Environmental Protection Agency (Ohio EPA) identified several reasons for poor water quality in the 2003 Total Maximum Daily Load (TMDL) study including marginal habitat, poor substrate, minimal riparian quality, bank erosion, and legacy sediment pollution from past manufacturing. However, the overriding reason for poor water quality was the combined sewer overflows (CSOs) from the City of Akron. There are currently 29 CSO outlets in the Little Cuyahoga River annually discharging hundreds or thousands of gallons of combined sewage and storm water. Without controlling Akron's combined sewer discharges, Ohio EPA believes the Little Cuyahoga River will not reach state water quality standards for biological and recreational uses.

The City of Akron is in the final stages of agreeing to a long-term control plan for the CSO discharges. Over \$600 million dollars will be spent by the City of Akron over the next eighteen years to dramatically reduce overflow from their combined sewer systems. The majority of the money will be spent to eliminate or reduce CSOs in the Little Cuyahoga River Watershed. A CSO reduction project has already been completed by Akron along the Little Cuyahoga River that has drastically decreased the sewer overflows in the final mile of river resulting in improved water quality.

Other stream restoration projects are already planned or completed in the watershed. The City of Akron is currently restoring 2,500 linear feet of stream and lowering a dam as part of the Goodyear World Headquarter redevelopment. Lockheed Martin recently completed a stream restoration and nature trail along Haley's Run, a tributary to the Little Cuyahoga River. The Western Reserve Land Conservancy and the City of Akron are seeking funds to secure riparian land along another tributary, Adams Run, to construct a trail and greenway.

Figure B-1:  
Cuyahoga River and Little Cuyahoga River Watersheds

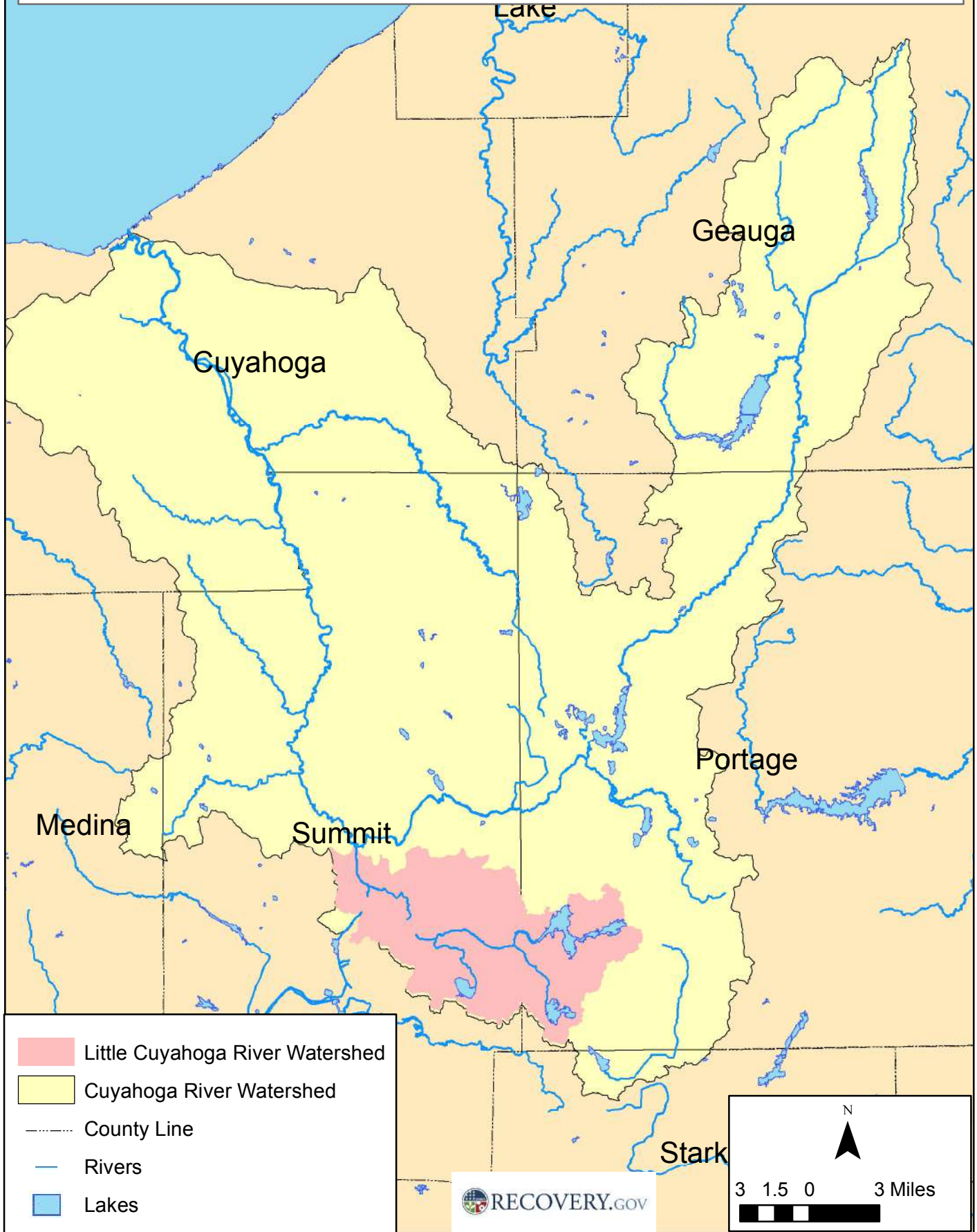
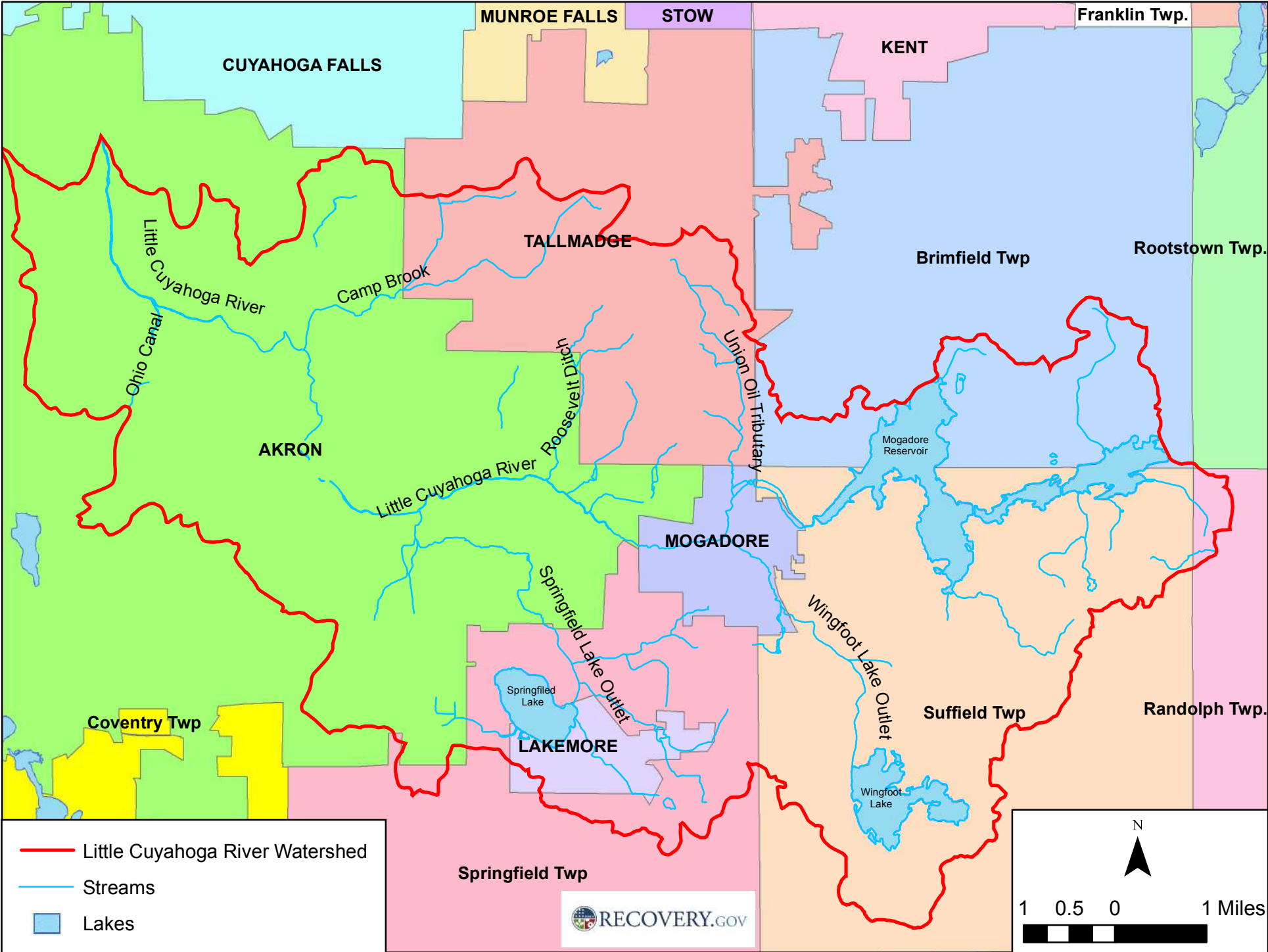


Figure B-2: Little Cuyahoga River Watershed - Jurisdictions



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Significant investments have been made or are planned for the Little Cuyahoga River; however, there is not a comprehensive plan in place that looks at the needs of the entire watershed. A watershed scaled plan to address water quality issues would enhance these already planned efforts in the basin and result in the development of additional water quality improvement projects. A watershed plan can also improve funding opportunities since many water quality grants and programs are tied to watershed planning efforts.

### C. Mapping & Analysis

NEFCO prepared maps of the Little Cuyahoga River Watershed using the most recent information available. Sources of the data include the Summit County Department of Community and Economic Development, Portage County Regional Planning Commission, Cuyahoga River Remedial Action Plan (RAP), Ohio Department of Natural Resources (ODNR), and the Akron Metropolitan Area Transportation Study (AMATS). The mapping included watershed location (Figure B-1), land use (Figure C-1), impervious area (Figure C-2), aerial photos (Figure C-3), and jurisdictions (Figure B-2). Utilizing geographic information systems (GIS) mapping, NEFCO was able to determine the percentage of land use and impervious area for the watershed (see below). NEFCO also edited the hydrologic layer by comparing all streams, ponds, and lakes in the GIS layer to 2006 aerial photos. In places where the GIS differed from the aerial photos, edits were made to correct the GIS layer. Lastly, large formatted maps were made for land use, impervious areas, and aerial photos for use at the public meeting and by interested parties.

#### Land Use

The land use analysis was completed using the AMATS 2005 land use data. The AMATS planning area includes both Summit and Portage Counties, so information was available for the entire Little Cuyahoga River Watershed. Table C-1 has the land use percentages in the watershed for various land use categorized.

<b>Land Use Category</b>	<b>Percent of Watershed</b>	<b>Acres</b>
Vacant Land	35.5	16,592
Residential	30.3	14,155
Transportation Facilities	12.8	5,991
Public Open Space	7.2	3,380
Manufacturing	3.7	1,712
Public Buildings	3.4	1,583
Service Industry	2.8	1,369
Wholesale	1.9	906
Retail Goods	1.3	593
Transportation Terminals/ Utility Facilities	0.7	327
Other	0.4	66

Source: Akron Metropolitan Area Transportation Study (AMATS)



**Figure C-1: Little Cuyahoga River Watershed - Land Use, 2005**

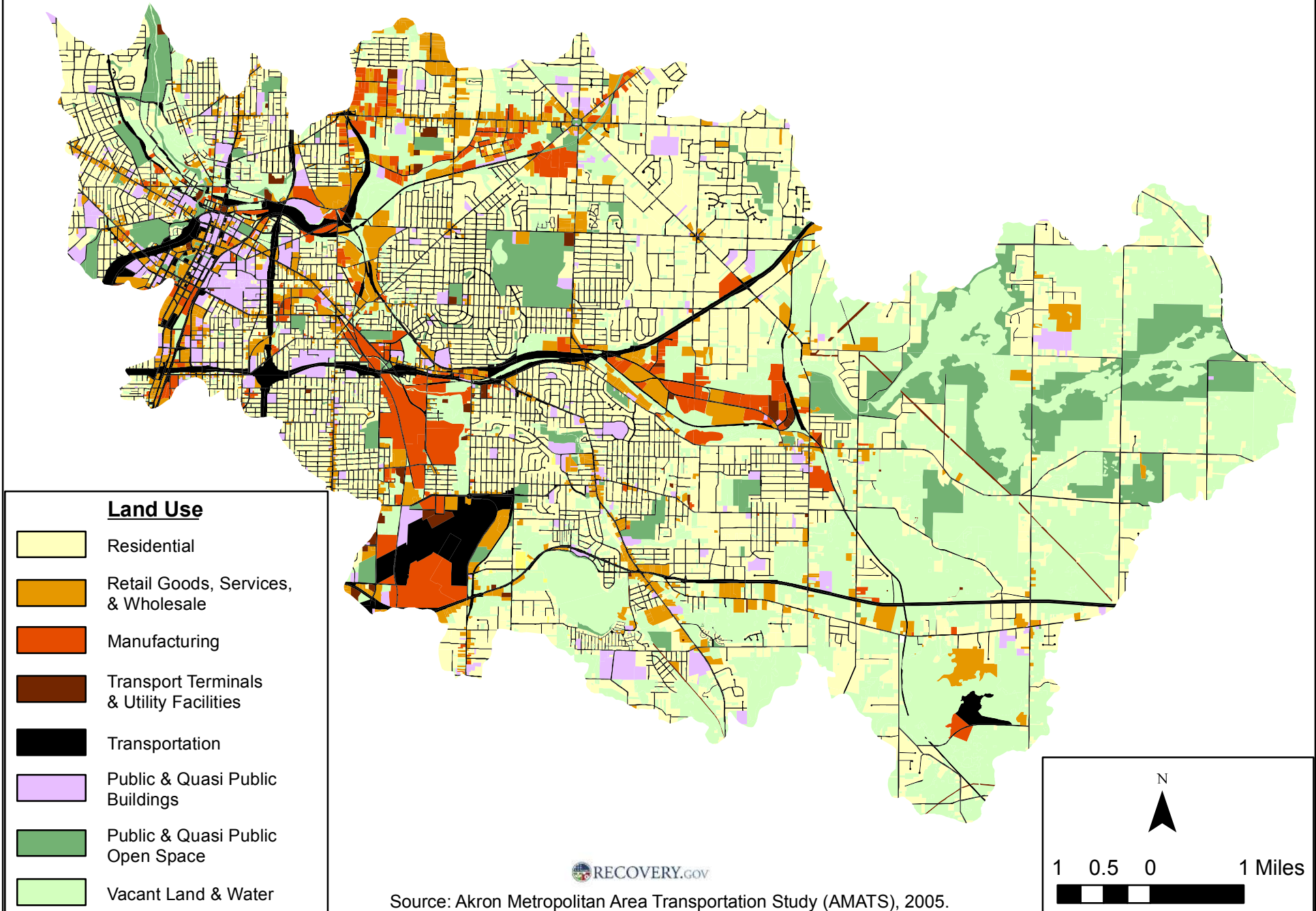


Figure C-2: Little Cuyahoga River Watershed - Impervious Area, 2001

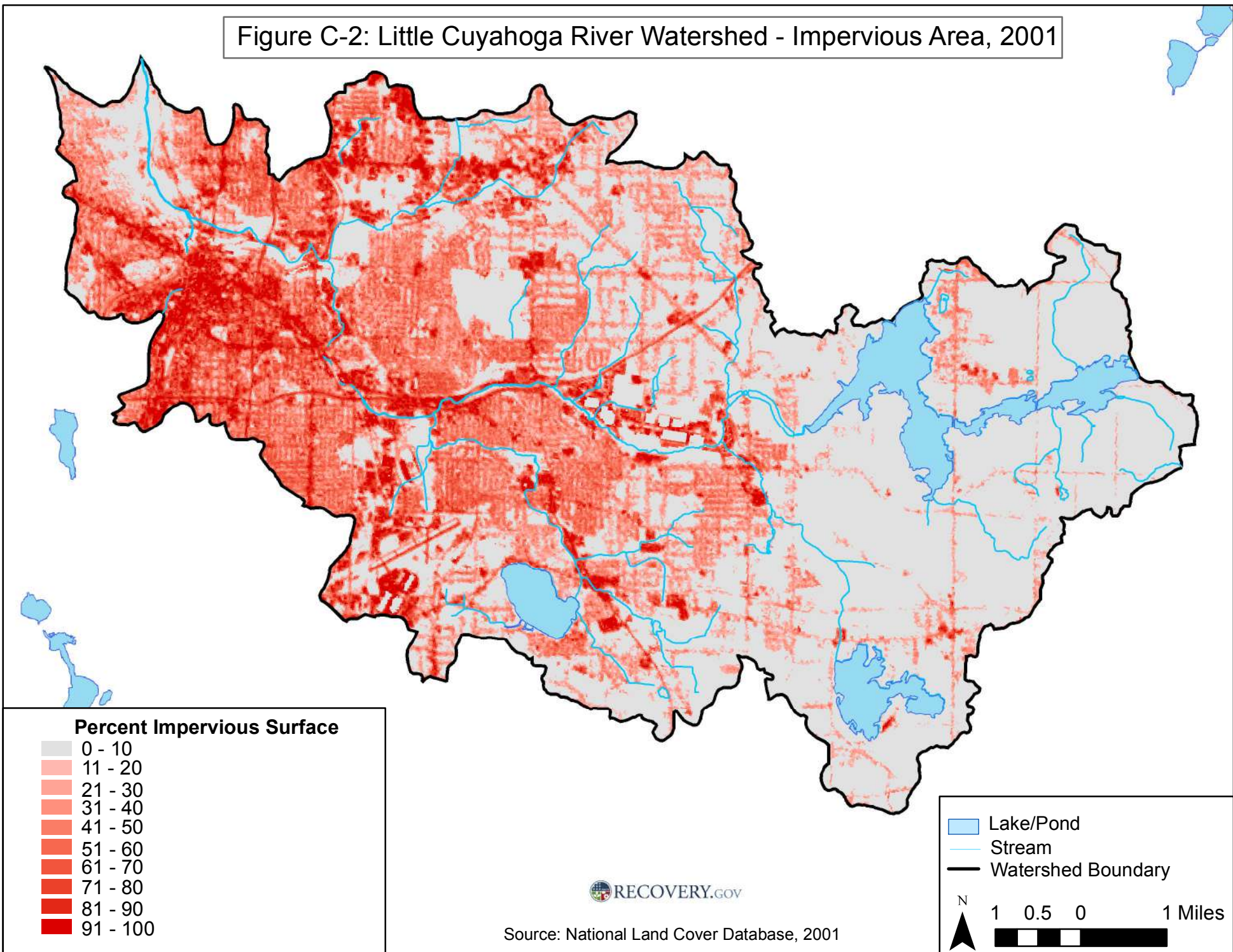
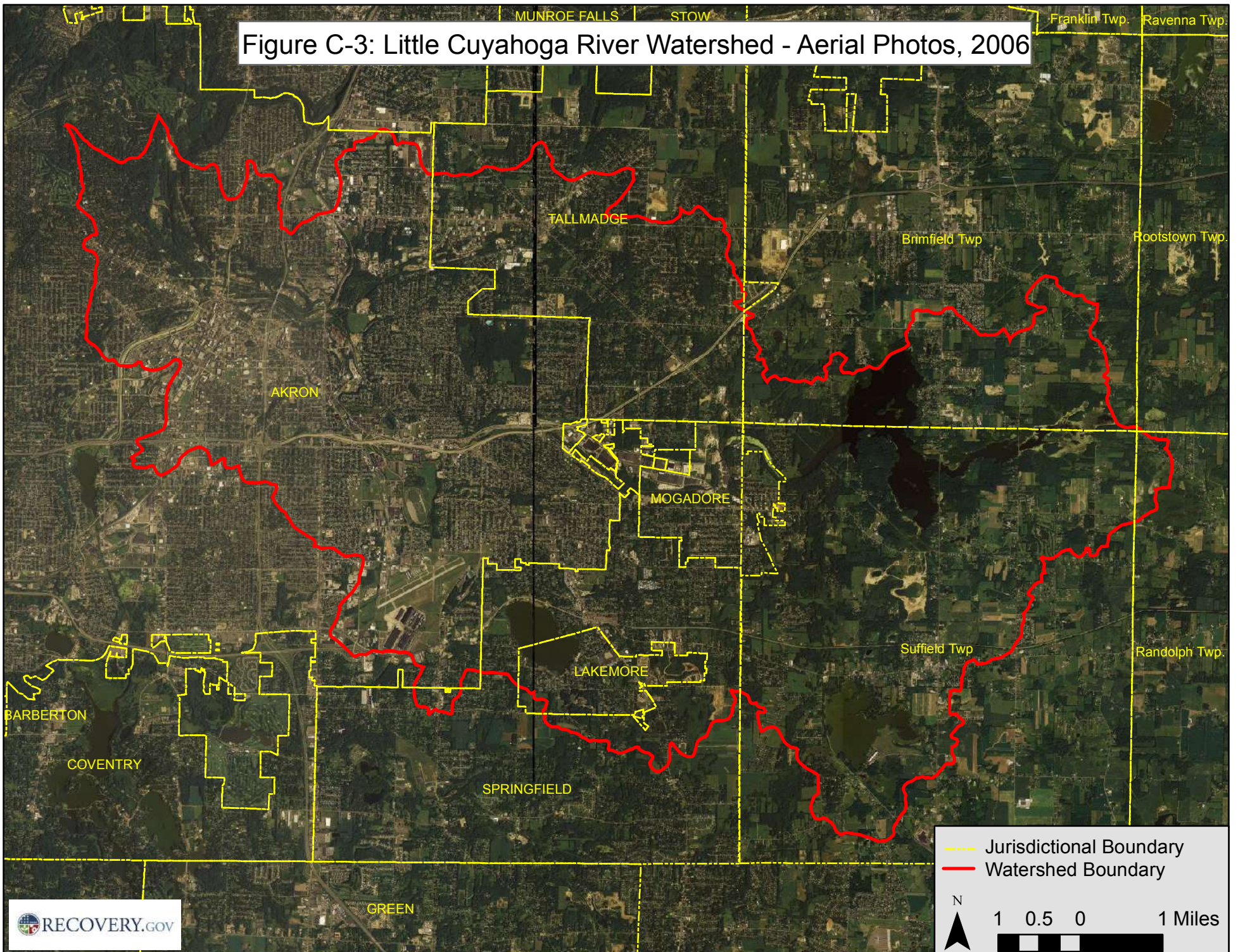




Figure C-3: Little Cuyahoga River Watershed - Aerial Photos, 2006



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In general the watershed goes from vacant land (lake, wetlands, floodplains, etc.) and open space (parks, farmland, golf courses, etc.) in the headwater areas in Portage County to more residential and urban uses (subdivision, commercial, manufacturing, etc.) as the Little Cuyahoga approaches Akron. There is also an extensive network of roads and highways comprising 10.9 percent of the watershed that are concentrated in the Akron portion of the basin. The lower end of the Little Cuyahoga River downstream of downtown Akron has a protected riparian corridor that is part of the Metro Parks - Serving Summit County Hike and Bike Trail.

Based on the land use information, future watershed planning and implementation work will likely vary significantly from the headwater areas to the lower portions of the watershed. In the headwaters, watershed planning work will likely revolve around protection of remaining open spaces and natural resources. Restoration work will likely be focused on agricultural best management practices, riparian vegetation improvements, and in-stream habitat restoration. As the watershed becomes more residential and urban along the lower reaches, the planning will likely focus on storm water management, identifying restorable sections of the river, and getting people connected to the Little Cuyahoga River through public access such as hike and bike trails. Education will play a vital role in all planning efforts in the entire watershed.

**Impervious Area Analysis**

Impervious areas are streets, parking lots, roofs, and other similar hard surfaces in a basin. These impenetrable areas prevent rain and melt water from infiltrating into the soil leading to more water running off into local streams. This increased runoff can lead to intensified flooding, habitat loss, erosion, channel widening, and other stream alterations. These changes often negatively affect fish and aquatic insects.

Statewide Ohio Environmental Protection Agency (Ohio EPA) data shows that as impervious increases in a watershed the stream quality declines. Streams start to become impacted when the watershed impervious area is as little as 7 percent. When the watershed is above 11 percent impervious area, the majority of the stream becomes impacted. At around 25 percent watershed impervious area, the stream is likely significantly degraded and not meeting state water quality standards.

Using the impervious layer from the 2001 National Land Cover Data (USGS), NEFCO determined the Little Cuyahoga River Watershed is 24 percent impervious area. Percent impervious area was further broken down by subwatersheds with the results shown in Table C-2.

<b>Table C-2: Little Cuyahoga River Subwatershed Percent Impervious Area</b>	
<b>Subwatershed</b>	<b>Percent Impervious</b>
Mogadore Reservoir	3.1
Wingfoot Lake to Springfield Lake Outlet	17.6
Springfield Lake Outlet	26.8
Springfield Lake Outlet to Mouth	<b>43.6</b>

The impervious areas significantly increase from the headwaters in the Mogadore Reservoir subwatershed to the mouth of the Little Cuyahoga River. The lower portion of the watershed from Springfield Lake to the mouth is over 40 percent impervious area.

Future planning and implementation work will need to focus on reducing the impacts of impervious areas for most of the watershed. Potential types of projects to offset the impact of impervious areas on local stream include storm basin retrofits, rain gardens, green infrastructure, riparian vegetation improvements, and pervious pavement. In the Mogadore Reservoir subwatershed, the focus will likely be to limit the increase in impervious areas and offset storm water impacts from new development.

#### **D. Public Meeting**

The Little Cuyahoga River Watershed Plan Public Meeting was held on Wednesday, September 29, 2010, at the Goodyear Branch Library in Akron. Meeting materials including the agenda, NEFCO's presentation, handouts, and a sign-in sheet can be found in Appendix A. The goal of the meeting was to present NEFCO's Phase I Action Plan work to interested stakeholders, discuss various watershed planning options, and determine the next steps in the planning process. The meeting was attended by 23 individuals representing diverse interests in the Little Cuyahoga River Watershed. Local government jurisdictions, regulatory agencies, environmental consulting firms, nonprofit organizations, media, and concerned citizens were all represented at the meeting.

The meeting began with an overview of the work completed by NEFCO. A location map and various watershed characteristics were presented by Eric Akin from NEFCO. Mr. Akin then presented a map of the seven government jurisdictions in the Little Cuyahoga River watershed. A map of the four subwatersheds was presented next followed by aerial photos of each of these subwatersheds. Mr. Akin pointed out the primary features of each subwatershed including streams, lakes, primary land uses, and landmarks. The land use map created with Akron Metropolitan Area Transportation Study (AMATS) data was presented next, and Mr. Akin said that in general the watershed goes from a rural and agricultural land uses in the Portage County headwaters to a very urban setting as it moves through Springfield Township and into the City of Akron. Over 30 percent of the land use is residential, 36 percent is classified as vacant land, over 13 percent related to transportation needs, and over 10 percent of the watershed is comprised of public buildings and lands. Mr. Akin pointed out that there is good riparian or stream-side habitat downstream of downtown Akron along the Summit Metro Parks' hike and bike trail.

Mr. Akin then presented the impervious area map created by NEFCO. The map was created using the 2001 National Land Cover Data Set which used satellites to map the impervious areas for the entire United States. The mapping showed that the Little Cuyahoga River Watershed is twenty-four percent impervious. The lowest impervious area is the Mogadore Reservoir subwatershed with three percent impervious cover. The Akron portion of the watershed was unsurprisingly the most hardened portion of the basin with nearly 47 percent impervious cover. Mr. Akin said that there is a 10 percent

rule when it comes to impervious area and water quality. Once a watershed goes above 10 percent impervious areas, the water quality will start to degrade. Watersheds with impervious areas over 20 percent generally have poor water quality. Mr. Akin explained that increased impervious or hard surfaces leads to flooding, habitat loss, erosion, stream channel widening, decreased fish, and other stream alterations. He said that protecting and restoring riparian or stream-side vegetation could help offset some of the water quality problems associated with increased impervious areas.

Mr. Akin next presented the water quality summary for the Little Cuyahoga River Watershed. He said Ohio EPA completed the Total Maximum Daily Load (TMDL) study for the basin in 2003. The TMDL states that the river is not in attainment for biological and recreational uses. Mr. Akin said the primary reason for the poor water quality is from the combined sewer overflows that discharge into the river in the City of Akron. Mr. Akin said other issues impacting water quality include habitat loss, polluted runoff, legacy pollution, low-head dams, dredging, and organic enrichment. However, Mr. Akin said the Little Cuyahoga is showing signs of improvement.

He said the City of Akron completed a CSO storage project that removed approximately 35 percent of the CSO discharge into the Little Cuyahoga. Water quality has improved downstream of this project area. The City of Akron is also finalizing a long-term CSO control plan that will dramatically reduce the CSO discharges into the river when implemented over the next 18 years. In addition, he said the City of Akron is restoring a 2,500 foot section of the Little Cuyahoga River as part of the Goodyear World Headquarters re-development. Mr. Akin provided other examples of watershed efforts in and around the Little Cuyahoga River and said NEFCO thought it was a good time to initiate a watershed plan given all of the current and future work being done in and around the Little Cuyahoga River.

Mr. Akin next discussed the two planning options investigated by NEFCO for the Little Cuyahoga River watershed. Watershed Action Plans and the Balanced Growth Initiatives both are planning processes endorsed by the state of Ohio and both have funding incentives tied to completed plans. Mr. Akin explained that a watershed action plan (WAP) is a data-intensive planning process that looks to develop specific implementation actions to address water quality concerns. A WAP should be developed with extensive input from local stakeholders in order for it to be successful. He said to receive state endorsement, a WAP must satisfy a detailed list of requirements provided by the Ohio EPA and ODNR. He said NEFCO has completed one fully-endorsed WAP for Nimishillen Creek in Stark County and the staff is working on a WAP for the Middle Cuyahoga River watershed. He said that one concern he has is that a WAP may not be as effective for a more urban watershed like the Little Cuyahoga River. Many of the traditional stream restoration practices are usually not feasible in an urban watershed due to price and/or encroachment. He said that many times there just is not enough room to do a stream restoration due to development right up next to the stream.

Jim White, Executive Director of the Cuyahoga River Remedial Action Plan (RAP), spoke about balanced growth planning. Mr. White said the RAP is using the balanced growth planning approach on several Cuyahoga River tributaries in Cuyahoga and Summit Counties. He said they preferred the balanced growth approach because it is a

voluntary plan that is easy to understand by elected officials and the public since is land use based. Mr. White said the plans have an economic development focus with realistic expectations. He said the balanced growth plan promotes priority conservation areas, and priority development areas. He continued by saying the goal is to protect existing natural resource areas and direct development to areas with existing infrastructure. He said to receive state endorsement, 75 percent of the government entities in a watershed must formally support or endorse the plan.

Mr. White said the RAP has nearly completed the Big Creek Balanced Growth Plan in Cuyahoga County which has similar watershed characteristics to the Little Cuyahoga River. Like the Little Cuyahoga River, the Big Creek Watershed is very urban with extensive impervious areas. He said that their plan focuses on priority redevelopment areas in the watershed. Mr. White also said that because of extensive development in the watershed, the plan focuses on keeping and treating storm water onsite instead of discharging it to a storm drain. He said they have identified several old storm water detention basins that could be retrofitted to allow for treatment and infiltration of storm water before entering Big Creek. Mr. White said that they found the balanced growth approach to be better than watershed action plans in urban watershed.

The final part of the meeting was a group discussion on the next steps in the planning process. All meeting attendees that spoke agreed that the timing was right for a watershed plan to be completed for the Little Cuyahoga River. Meeting attendees saw value in both a watershed action plan and a balanced growth plan. It was pointed out by Mr. Akin and Mr. White that the information collected by either planning process could be utilized to help complete the other plan. They said one collects a lot of the same information for each plan. It was suggested by the meeting attendees that NEFCO pursue funding for both types of watershed plans and then focus on the planning path that is funded.

A comment was made that riparian setbacks are a key to protecting all streams, including the Little Cuyahoga River. Setback ordinances have been passed in several Summit County townships, villages, and cities with positive results. An attendee commented that there is not a good understanding of the nitrogen and phosphorus cycling in the Little Cuyahoga River and this needs to be addressed in future planning efforts. Another attendee pointed out that erosion is a serious issue along the upper reaches of the Little Cuyahoga River.

The discussion then focused on the public's view of the Little Cuyahoga River. The meeting attendees agreed that by in large most watershed residents don't know the Little Cuyahoga River is there. A comment was made that if the public knew it was there they would take ownership of this local resource. The consensus was that a priority in any planning process should be to get people connected to the Little Cuyahoga River. Many suggested focusing on adding hike and bike trails along the river. One participant suggested taking advantage of the historical elements in the watershed including Goodyear, Akron Air Dock, and the Soap Box Derby.

The last discussion item was identifying stakeholders missing from the meeting. It was suggested that the Army Corps of Engineers, a local railroad representative, and the



airports in the watershed be contacted. Mr. Akin said that NEFCO would follow-up with local elected officials, agencies, and other groups or representatives that were invited to the meeting but did not attend or contact NEFCO.

## E. Contact List

Table E-1 is the list of individual stakeholders interested in efforts to restore the Little Cuyahoga River, as compiled by NEFCO.

<b>Name</b>	<b>Representing</b>	<b>Address or Email</b>	<b>Attended Public Meeting</b>
Ana Burns	Davey Resource Group	Ana.Burns@davey.com	No
James Bierlair	Portage SWCD	james-bierlair@oh.nacdnet.org	No
Edith Chase	Kent Environmental Council	5761 Caranor Drive Kent, OH 44240	Yes
Dave Crandell	City of Akron – Retired	dlcrandell2002@yahoo.com	Yes
Tom Denbow	URS	1375 Euclid Avenue, Suite 600 Cleveland, OH 44115	Yes
Michelle DiFiore	City of Akron – Engineering Bureau	MDiFiore@akronohio.gov	No
Bob Downing	Akron Beacon Journal	bdowning@thebeaconjournal.com	Yes
Jerry Egan	Egan Consult LLC	jeganconsult@gmail.com	No
Eartha Goodwin	Little Cuyahoga River Conservancy	oneeartha@gmail.com	Yes
Ethan Goodwin	Little Cuyahoga River Conservancy	egoodthanwin@gmail.com	Yes
Pat Gsellmen	City of Akron – Engineering Bureau	Pgsellmen@akronohio.gov	No
Genny Hanna	City of Akron – Engineering Bureau	GHanna@akronohio.gov	Yes
Neil Hess	Springfield Township & Trust for Public Lands	Neal.Hess@tpl.org	No
Joan Hug-Anderson	Summit SWCD	jhugand@summitswcd.org	Yes
Andrea Irland	Cuyahoga Valley National Park	Andrea.Irland@nps.gov	Yes
Claudia James	Portage County Regional Planning Commission	cjames@pcrpc.org	No
Daniel Joseph	City of Akron – Public Utilities Bureau	djoseph@akronohio.gov	Yes
Walter Lehr	Resident	2196 Treares Rd. Suffield, OH 44260	Yes
Dan Markowitz	Resident	dmarkowi@neo.rr.com	Yes
Elizabeth Mather	Western Reserve Land Conservancy	emather@wrlandconservancy.org	Yes
Mark Moore	City of Akron – Department of Planning	Mmoore@akronohio.gov	Yes
Jack Pierson	Resident	1221 W. Market St. Akron, OH 44313	Yes
Jeff Pritchard	Resident	jpritchard@cityofstreetsboro.com	Yes
Kelvin Rogers	Ohio EPA	Kelvin.rogers@epa.state.oh.us	Yes
George Sieferth	Resident	3866 Genevieve Stow, OH 44224	Yes

Scott Siegfert	Resident		Yes
Kevin Skerl	Cuyahoga Valley National Park	kevin_skerl@nps.gov	No
Lauren vonVesterfield	Little Cuyahoga River Conservancy	laurenvonvesterfield@yahoo.com	Yes
James White	Cuyahoga River RAP	whitej@cuyahogariverrap.org	Yes
David Whited	Metro Parks - Serving Summit County	dwhited@summitmetroparks.org	No
Amy Wolf	City of Akron – Department of Planning	166 S. High St. Akron, OH 44308	Yes
Dean Young	Springfield Township	2459 Canfield Road Akron, OH 44312	No
Bill Zawiski	Ohio EPA – NEDO	bill.zawiski@epa.state.oh.us	Yes

In addition to the contacts in Table E-1, NEFCO also sent the public meeting notice to various elected officials in the watershed including Akron City Council, Summit County Council, township trustees, and city/village majors. Table E-1 represents the initial contact list that will be edited and expanded as work progresses in the Little Cuyahoga River Watershed.

## **F. Next Step**

Based on the information gathered by NEFCO’s staff and the feedback from the public meeting, NEFCO will pursue additional funding to go ahead with a full-scale watershed plan for the Little Cuyahoga River. NEFCO will explore funding to complete both a watershed action plan and a balanced growth plan. It was the consensus of meeting attendees that both planning processes would benefit the Little Cuyahoga River. Both planning paths are endorsed by Ohio and have state and federal funding incentives available for completed plans.

If successful in attaining funding to complete either a watershed action or balanced growth plan, NEFCO will be the lead agency in creating the watershed plan. Both planning options would require extensive assistance and endorsement from the various government jurisdictions, environmental agencies, and watershed residents to be successful. An advisory or watershed group would be formed to ensure participation and buy-in from these entities.

# **Appendix A**

## **Little Cuyahoga River Public Meeting Materials**

- Meeting Notice Memo
- Meeting Press Release
- Newspaper Announcement
  - Meeting Agenda
  - Meeting Sign-in Sheet
  - Akron CSO Brochure
- Balanced Growth Summary
- Watershed Action Plan Summary
  - What is NEFCO Handout
  - Meeting Presentation

# NEFCO

**NORTHEAST OHIO FOUR COUNTY REGIONAL PLANNING & DEVELOPMENT ORGANIZATION**  
180 East South Street, Akron, Ohio 44311-2035 (330) 252-0337 • Fax (330) 252-0664

*Bob Breneman, Chairman*

*Joseph Hadley, Jr., Executive Director*

## MEMORANDUM

**TO:** Interested Stakeholders in the Little Cuyahoga River Watershed

**FROM:** Eric Akin, Environmental Planner

**DATE:** September 16, 2010

**SUBJECT:** Public Stakeholder Meeting on Developing a Watershed Plan for the Little Cuyahoga River in Summit and Portage Counties

NEFCO will be holding a public meeting for all parties interested in restoring the Little Cuyahoga River. The meeting will be **Wednesday, September 29, 2010, at the Goodyear Branch Library located at 60 Goodyear Boulevard, Akron 44305 starting at 2:00 pm.**

The Little Cuyahoga River is a 17.4 mile long tributary to the Cuyahoga River draining 61.7 square miles of mostly urban areas in Summit and Portage Counties. The River and its tributaries flow through the Cities of Akron and Tallmadge; the Villages of Lakemore and Mogadore; and the Townships of Brimfield, Springfield, and Suffield. The watershed includes Mogadore Reservoir, Wingfoot Lake, and Springfield Lake.

NEFCO has completed preliminary work in developing a watershed plan for the Little Cuyahoga River which will be presented at the meeting. The primary goal of the meeting is to determine if a plan to restore and protect the Little Cuyahoga River is needed. If a plan is needed, the next step is to determine if there is enough interest among those living and working in the watershed to continue with the planning work, and what the focus of the plan should be.

NEFCO staff believes the timing is right for a Little Cuyahoga River watershed plan, with the stream restoration work that is part of the Goodyear World Headquarters development, the combine sewer overflow improvement work by the City of Akron, the storm water programs covering the entire watershed, and similar planning efforts by the Cuyahoga River Remedial Action Plan (RAP) along other Cuyahoga River tributaries. Local involvement with this effort is vital for a successful watershed plan.

If you have any questions regarding the meeting or NEFCO's efforts on the Little Cuyahoga River, please contact Eric Akin ([EAkin@nefcoplanning.org](mailto:EAkin@nefcoplanning.org) or 330-252-0337). Thank you!

# NEFCO

**NORTHEAST OHIO FOUR COUNTY REGIONAL PLANNING & DEVELOPMENT ORGANIZATION**  
180 East South Street, Akron, Ohio 44311-2035 (330) 252-0337 • Fax (330) 252-0664

*Bob Breneman, Chairman*

*Joseph Hadley, Jr., Executive Director*

## NEWS RELEASE

### FOR IMMEDIATE RELEASE

September 16, 2010

Contact: Eric Akin, Environmental Planner  
Northeast Ohio Four County Regional Planning and  
Development Organization (NEFCO)<sup>1</sup>  
180 East South Street  
Akron, OH 44311  
(330) 252-0337  
FAX: (330) 252-0664  
Email: [Eakin@nefcoplanning.org](mailto:Eakin@nefcoplanning.org)

### **SUBJECT: Little Cuyahoga River**

What: Little Cuyahoga River Watershed Public Meeting

When: Wednesday, September 29, 2010

Where: Goodyear Branch Library  
60 Goodyear Boulevard  
Akron, OH 44305

Start Time: 2:00 p.m.

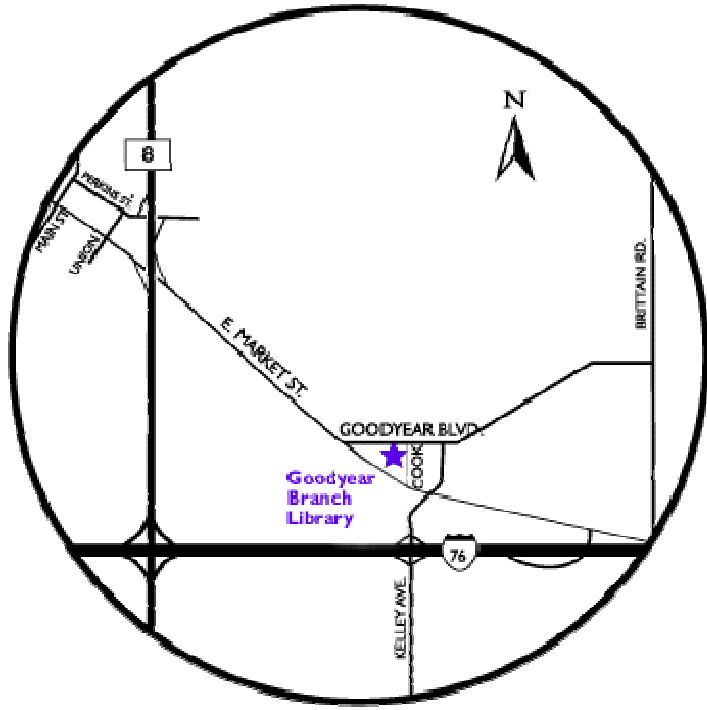
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Questions regarding the meeting or NEFCO's efforts on the Little Cuyahoga River should be directed to Eric Akin.

<sup>1</sup>NEFCO is a regional council of governments whose members include the townships, villages and cities within Portage County, Stark County, Summit County, and Wayne County, as well as the four counties. NEFCO General Policy Board members include elected and public officials, business officials, and citizens from the four counties. NEFCO is the designated water quality planning agency for this region and is partially funded through grants from the Ohio EPA, the U.S. Department of Commerce, the Ohio Department of Natural Resources and dues from its members.





**SUMMIT COUNTY**

**River talk**

9/21/10  
KAS

**AKRON:** A local planning agency will host a public meeting on Sept. 28 for all parties interested in restoring the Little Cuyahoga River.

The meeting organized by the Akron-based Northeast Ohio Four County Regional Planning and Development Organization will begin at 2 p.m. at the Goodyear Branch of the Summit-Akron Public Library, 60 Goodyear Blvd.

The agency has completed preliminary work on developing a new watershed plan for the Little Cuyahoga River.

The stream flows 17.4 miles through Portage and Summit counties from Mogadore Reservoir, Wingfoot Lake and Springfield Lake and empties into the Cuyahoga River.

For more information, contact Eric Akin at 330-252-0337.

# **Little Cuyahoga River Watershed Public Meeting**

Wednesday, September 29, 2010  
2:00 p.m.

Goodyear Branch Library  
60 Goodyear Boulevard  
Akron, OH 44305

## **Agenda**

- I. Welcome and Introductions**
  - Meeting Goals
  - NEFCO's Role
  
- II. Little Cuyahoga River Watershed Overview**
  - Watershed Characteristics
  - Water Quality Information
  - Summary of Water Projects
  
- III. Watershed Planning Options**
  - Watershed Action Plan
  - Balanced Growth Initiative
  
- IV. Group Discussion**
  - Best Watershed Planning Option for the Little Cuyahoga River
  - What Is Good and Bad About the Watershed?
  - Problems and Obstacles?
  - What Can the Little Cuyahoga River Look Like in 20 Years?
  
- V. Next Steps**
  - Continue Watershed Planning Work?
  - Needed Partners
  - Funding Options

**ATTENDANCE SHEET**  
**Little Cuyahoga River Watershed**  
**Public Meeting**  
**Goodyear Branch Library**  
**Wednesday, September 29, 2010**  
**2:00 p.m.**

	NAME (please print)	ADDRESS or EMAIL ADDRESS
1	KELVIN ROGERS	kelvin.rogers@epa.state.oh.us
2	Bob Dummer	196 W. BROAD ST AKRON, OH 44312
3	Bill Zawiski	OHIO EPA
4	Edith Chase	5731 Cananda Drive Kent, OH 44240
5	Amy Wolf	166 S High St. Akron OH City of Akron Planning Dept
6	JIM WHITE	WHITEJ@CUYAHOGARIVERWATERSHED.ORG 1299 Superior Ave. CLEVELAND, OHIO 44114
7	Dan Joseph	City of Akron
8	Jeff Pritchard	1393 Howdell Ave City of Akron, Ohio 44305
9	Tom Denbow	URS
10	Jack Reigan	1221 W. Market St Akron, OH 44313-7107
11	Liz Mather	Western Reserve Land Cons. emather@wrlandconservancy.org
12	Mark Moore	City of Akron
13	George Siegfert	CITY RETIRED



	NAME (please print)	ADDRESS or EMAIL ADDRESS
14	Genny Hanna	Ghanna@akronohio.gov
15	WALTER LEHR	2196 TRARES RD. SUFFIELD OH. 44260
16	SCOT Siegrerth	Concerned Resident
17	Andrea Irland	Andrea.Irland@nps.gov
18	Dan Markowitz	dmarkowi@nepo.rri.com
19	EARTHA Goodwin	oneeartha@gmail.com
20	Laur "	Lauren von Vesterfield@yahoo.com
21	Ethan Goodwin	egoodthawwin@gmail.com
22	Joan Hus Anderson	jhusand@summitrwd.org
23	David Crandell	416 Crystal St. Akron Ohio 44305
24		
25		
26		
27		
28		
29		





*“A clean Cuyahoga River will benefit Akron residents and park visitors alike, as they use the Ohio & Erie Canal Towpath and other beautiful park resources lying along the Cuyahoga River Valley.”*

John P. Debo, Jr. – Superintendent, Cuyahoga Valley National Park, 1988-2009



# A RIVER RENEWED

## The City Of Akron Sewer System Renovations And How They Will Transform The Cuyahoga River

### The Benefits Of A Cleaner River

Improving the Akron sewer system will require a substantial investment by the community, but the long-term benefits will prove to be invaluable.

#### Outdoor Attraction

The Cuyahoga River provides fishing and boating opportunities for millions of people every year. Plus, a clean river helps to sustain the surrounding parklands for hikers, campers and other outdoor enthusiasts. An improved sewer system will help to improve the quality of life for residents and make Akron an attractive draw for tourists seeking outdoor activities.

*“At a time when many areas of the country are afflicted by drought, Akron is uniquely situated to take advantage of our abundant water supply to create jobs and showcase our quality of life.”*

Don Plusquellic – Mayor, City of Akron

#### New Jobs

Clean waterways are important resources when choosing locales for industrial plants, mills and other installations. The Akron area provides access to an uninterrupted source of competitively priced water. Improvements to the sewer system will help make Akron a more attractive destination for businesses, which will, in turn, bring more jobs to the area.



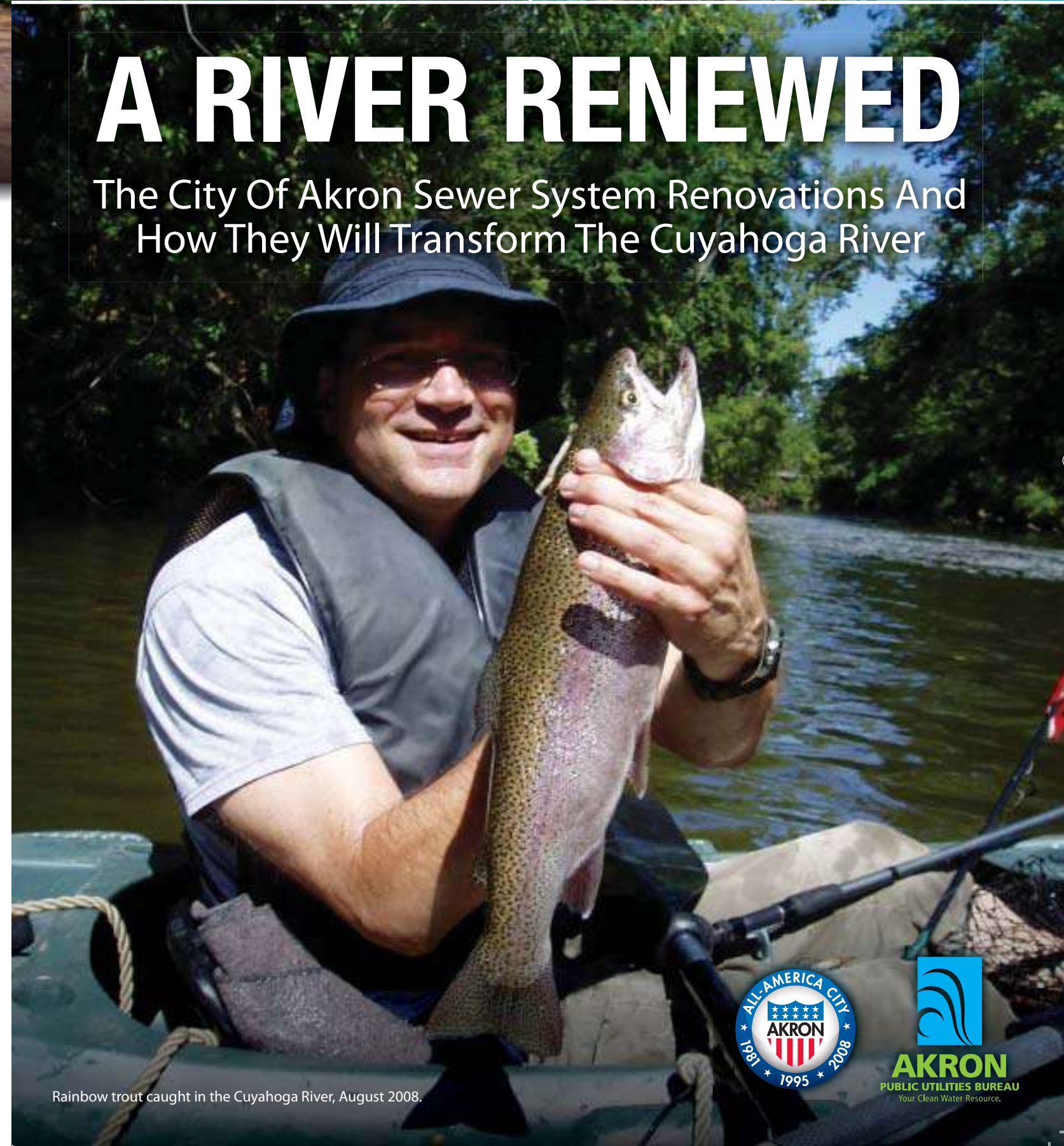
#### Clean Currents

The Cuyahoga River is the southern gateway to Cuyahoga Valley National Park. Pollution that enters the river in Akron can be carried all the way to Lake Erie. By taking steps to reduce combined sewer overflows, we improve the local environment and the health of the entire northeastern Ohio ecosystem.

### Building a Healthier Tomorrow

Akron has a history of environmental consciousness. Each generation strives to leave the community in better shape for the next. An upgraded sewer system and a cleaner Cuyahoga River will help bolster our community and provide a healthier environment for generations to come.

Photos: Bruce Ford, Ray Flasco, Akron-Summit County Public Library



Rainbow trout caught in the Cuyahoga River, August 2008.







The combined sewer system under construction in the 1920s.



### The Combined Sewer Overflow (CSO) System

A Combined Sewer Overflow System collects both sewage and storm runoff in a single pipe. During times of heavy rain, the resulting overflow goes to nearby bodies of water, which can lead to serious water pollution problems.



Areas serviced by the CSO system and locations of overflow pipes.

## Long Overdue Repairs

Akron was founded as a “canal town” in 1825. Its fate has been linked to the Ohio & Erie Canal and the Cuyahoga River ever since. Akron grew because of the two waterways. Industry used the waters of the river and the canal to create booming new industries, and today, the canal towpath and the Cuyahoga Valley provide recreation to millions of visitors each year.

Akron grew wildly between 1910 and 1920 because of the boom in the rubber shops. The city’s population doubled. Sewers were hastily installed and were never sufficient to handle the surge of new housing. Raw sewage flowed into the Cuyahoga River in Akron, Cleveland and points in between.

In 1922, Mayor D. C. Rybolt started work on a new sewage treatment plant at Botzum in the Cuyahoga Valley. It’s where sewage is still treated today for Akron and its neighboring communities. (The same 40-acre site today is home to a rookery of herons that return every spring to hatch and raise their young.)

During the days of the W.P.A. in the 1930s, unemployed men were put to work building new sewers. Combining the pipes that carried storm water runoff with sanitary sewers seemed like a good idea to designers of the day – even though it meant that during times of heavy rain, raw sewage would again flood the Cuyahoga.

By 1994, Akron had created a plan to control the overflows from the combined sewers. In 2006, Akron voluntarily asked sewer customers to invest in a \$22 million upgrade that handled approximately 30% of the problem and resulted in a river clean enough to sustain fish life again. Today, the sewer system is functional but still subpar by modern standards.

### The Solution

In order to re-establish the Cuyahoga River as a clean, abundant water resource, major improvements to the Akron sewer system are needed. Therefore, in accordance with a mandate from the U.S. Environmental Protection Agency, the City of Akron will undertake a sewer system improvement program estimated in excess of \$500 million to drastically reduce the amount of combined sewer overflow. These improvements will take place over the course of the next 20 years, with the ultimate goal being cleaner water and a healthier environment.

### What This Means To You

In order to accomplish Akron sewer system improvements in accordance with federal requirements, sewer rates will have to increase to cover costs. The coming years will bring incremental rate increases for residential, commercial, industrial, suburban and master meter sewer users as outlined in the table. (Exact rates and billing charges beyond 2013 will be determined by the scope of the long-term plan.)

AKRON SEWER RATES 2010-2013

User Class	Current Rate		Future Rates		
	2009	2010	2011	2012	2013
	(\$/Month)				
Billing Charge – Akron	\$1.91	\$2.39	\$2.87	\$3.44	\$3.75
Billing Charge – Akron (HEAP)		\$2.24	\$2.58	\$2.96	\$3.16
Billing Charge – Suburban (Contract)	\$1.80	\$2.43	\$2.79	\$3.04	\$3.32
Master Meter	\$50.00	\$52.50	\$55.13	\$57.89	\$60.78
	(\$/Hundred Cubic Feet)				
<b>Residential</b>					
Akron	\$3.035	\$3.794	\$4.533	\$5.463	\$5.955
Akron (HEAP)		\$3.560	\$4.094	\$4.708	\$5.026
JEDD	\$2.862	\$3.794	\$4.533	\$5.463	\$5.955
Suburban	\$2.706	\$3.619	\$3.800	\$3.990	\$4.190
Fairlawn (Contract)	\$2.547	\$3.176	\$3.335	\$3.502	\$3.677
	(\$/HCF)				
<b>Commercial</b>					
Akron	\$2.852	\$4.038	\$4.644	\$5.34	\$5.821
JEDD	\$2.691	\$4.038	\$4.644	\$5.34	\$5.821
Suburban	\$2.697	\$3.610	\$3.790	\$3.980	\$4.179
Fairlawn (Contract)	\$2.538	\$3.167	\$3.325	\$3.492	\$3.666
	(\$/HCF)				
<b>Industrial</b>					
Akron	\$3.812	\$5.291	\$6.084	\$6.997	\$7.627
JEDD	\$3.596	\$5.291	\$6.084	\$6.997	\$7.627
Suburban	\$3.700	\$4.659	\$4.892	\$5.136	\$5.393
Fairlawn (Contract)	\$3.541	\$4.216	\$4.427	\$4.648	\$4.881
	(\$/1,000 gallons)				
<b>Master Meter Suburban</b>					
Cuyahoga Falls	\$1.613	\$1.915	\$2.011	\$2.112	\$2.217
DOES - Montrose	\$1.727	\$2.179	\$2.288	\$2.402	\$2.522
DOES - Mudbrook	\$1.567	\$1.830	\$1.922	\$2.018	\$2.119
Lakemore	\$1.572	\$1.805	\$1.895	\$1.990	\$2.089
Tallmadge	\$1.560	\$1.811	\$1.902	\$1.997	\$2.097

Average residential customer uses 7 hcf of water a month.

Residential billing example (2/1/10 rate/charge): (7 x \$3.794) + \$2.39 = \$28.95 sewer bill for one month (HEAP customer would be less)

Residential HEAP billing example (2/1/10 rate/charge): (7 x \$3.56) + \$2.24 = \$27.16 sewer bill for one month

Rate increases and billing charge increases after 2013 will be determined by the scope of the long-term control plan, which is in development.

Akron City Council passed legislation that HEAP customers will get a 25 percent discount on the 2010 through 2013 rate increases and billing charge increases (not on the whole bill).

**Notes:**

HCF = a hundred cubic feet

A hundred cubic feet (HCF) = 748 gallons of water

HEAP = Home Energy Assistance Program (for customers who qualify for this program)

The sewer charge is determined by water consumption.



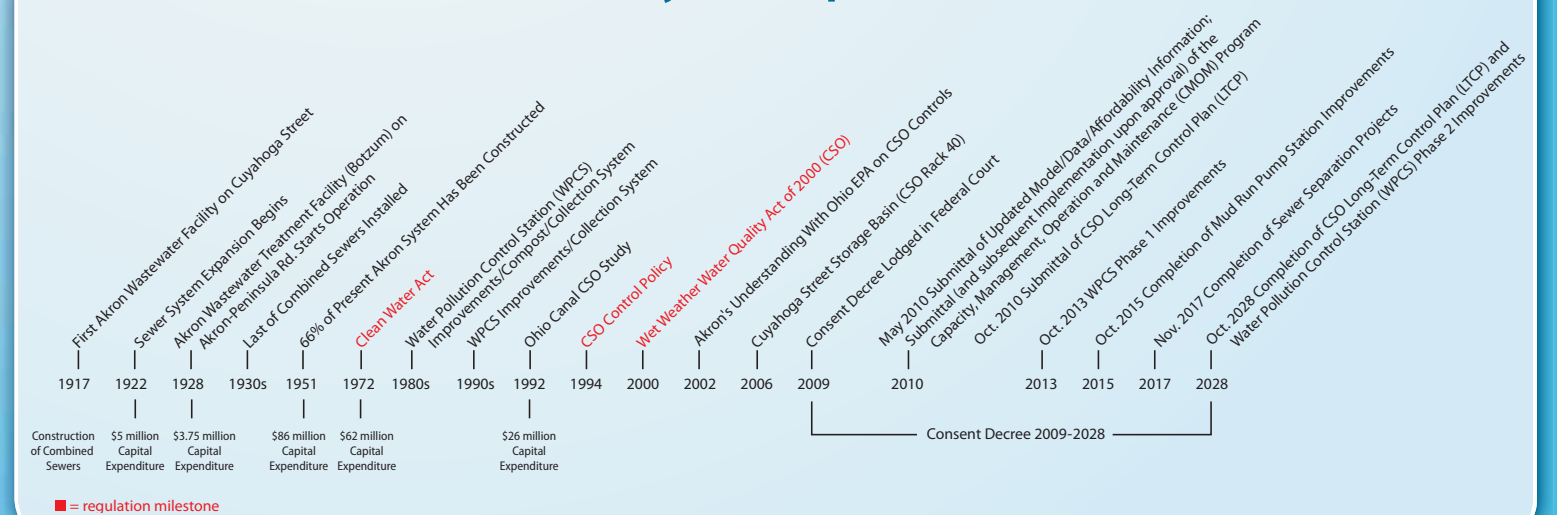
*“The city’s efforts to clean up the river will benefit the entire region by improving water quality and letting us share the river’s cultural and natural history with more people.”*

Keith D. Shy – Director-Secretary, Metro Parks, Serving Summit County



The \$22 million Cuyahoga Street Storage Facility, built in 2006, is one of the most recent upgrades to the sewer system infrastructure. Major improvements are planned for the years to come.

## A History Of Improvement





## Balanced Growth Initiative Summary

### What is a Balanced Growth Plan?

Balanced Growth is a voluntary, incentive-based strategy to protect and restore Lake Erie, the Ohio River, and Ohio's watersheds to assure long-term economic competitiveness, ecological health, and quality of life. The recommendations focus on reducing urban sprawl, protecting natural resources and encouraging redevelopment in urban areas.

Ohio's Balanced Growth Program encourages:

- A regional focus on land use and development planning.
- The creation of local Watershed Planning Partnerships to designate, Priority Conservation Areas and Priority Development Areas.
- The alignment of state policies, incentives, funding, and other resources to support watershed balanced growth planning and implementation.
- The implementation of recommended model regulations to help promote best local land use practices that minimize impacts on water quality and provide for well planned development efficiently served by infrastructure.

### Balanced Growth Initiative (BGI) Strengths:

- Land Use Based
- Resource Preservation
- Regional
- Missing Piece in a WAP
- Prevents Future Problems
- Funding Support

### Limitations or Challenges:

- Doesn't Address Past Problems
- Restoration Not a Priority
- Agreement Among Jurisdictions
- Not Necessarily Based on Water Quality

### Endorsement:

Lake Erie Commission  
Ohio Water Resources Council

### Incentives:

- Eligibility for Funding: Coastal Management Assistance Grant Program; Great Lakes Basin Program; Ohio Lake Erie Conservation Reserve Enhancement Program.
- Priority Funding: Section 319 Grant; Lake Erie Protection Fund; Watershed Coordinator Program; Clean Ohio Trails Program; Wetland Reserve Program.

### Watershed Action Plans in Northeast Ohio:

- Chagrin River (Portage, Cuyahoga, Lake, & Geauga Counties) – Endorsed
- Chippewa Creek (Cuyahoga County) – Endorsed
- Rocky River Upper West Branch (Medina County) – Endorsed
- Big Creek (Cuyahoga County) – Submitted for Endorsement
- Furnace Run (Summit & Cuyahoga Counties) – Developing

## Watershed Action Plan Summary

### What is a Watershed Action Plan?

A Watershed Action Plan (WAP) is a comprehensive effort to address multiple causes of water quality and habitat degradation in a watershed. It is a *process* that emphasizes prioritizing problem areas and developing comprehensive, integrated solutions by involving stakeholders from both inside and outside of government.

A watershed action plan will help to accurately identify pollutants and pollution sources so that appropriate and effective solutions can be formulated. The quality of the water resource at any point in a stream is the product of all natural and human activities in the drainage area above that point. *To positively affect water quality, all the sources of potential pollutants need to be identified and evaluated based on their relative pollution contribution.*

- *A Guide to Developing Local Watershed Action Plans in Ohio, 1997.*

### Watershed Action Plans Strengths:

- Comprehensive
- Funding Support
- Focused on Restoration
- Data Driven
- Problem Prioritization
- Locally Driven

### Limitations or Challenges:

- Labor Intensive
- Urban Challenges
- Data Dependent
- Paralysis by Analysis
- Small Study Area
- Technical Resources Needed

### Endorsement:

Ohio EPA, Division of Surface Water  
ODNR, Division of Soil & Water Conservation

### Incentives:

- Eligibility for Funding: Section 319 Grant; Coastal Management Grant; Great Lakes Basin Program
- Priority Funding: Section 319 Grant; Great Lakes Restoration Initiative; EQIP; WRRSP; Clean Ohio Fund

### Watershed Action Plans in Northeast Ohio:

- West Creek (Cuyahoga County) – Fully Endorsed
- Tinkers Creek (Cuyahoga & Summit Counties) Full Endorsed
- Nimishillen Creek (Stark County) – Fully Endorsed
- Euclid Creek (Cuyahoga County) – Fully Endorsed
- Chagrin River (Portage, Cuyahoga, Lake, & Geauga Counties) – Fully Endorsed
- Rocky River (Cuyahoga & Medina Counties) – Fully Endorsed
- Sugar Creek (Wayne County) – Conditionally Endorsed
- Middle Cuyahoga River (Summit & Portage Counties) - Developing

# NEFCO: A Regional Council

**NORTHEAST OHIO FOUR COUNTY REGIONAL PLANNING & DEVELOPMENT ORGANIZATION**  
180 East South Street, Akron, Ohio 44311-2035 (330) 252-0337 • Fax (330) 252-0664  
*Bob Breneman, Chairman* *Joseph Hadley, Jr., Executive Director*

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## **WHAT IS NEFCO?**

The Northeast Ohio Four County Regional Planning and Development Organization (NEFCO) was formed in 1974 as a council of governments by the elected officials within Portage, Stark, Summit and Wayne Counties. NEFCO was created as a voluntary organization to enable local officials to discuss problems facing the Region and to develop strategies to cope with them. NEFCO also serves as a forum through which local, state and federal planning programs can be more effectively coordinated.

## **HOW IS NEFCO STRUCTURED?**

The organization is directed by a General Policy Board which serves as the decision making body and meets monthly. The Policy Board is comprised of representatives from each of the four counties, including the Cities of Akron, Kent and Wooster. Of the Board's 38 active members, 16 are elected officials, 18 are public officials, and 4 are private appointees.

## **WHAT DOES NEFCO DO?**

NEFCO's primary purpose is to serve the county, city, village and township governments, and the citizens within the four-county area. On behalf of these local units of government, NEFCO produces a series of studies or plans supporting the local plans in order to help maximize the return of federal tax dollars to the Region. Through communication, planning, coordination and technical assistance, NEFCO addresses issues which cross jurisdictional boundaries. Such issues as the environment, economic development, transportation, housing and land development are regional problems which require locally conceived regional solutions.

## **DO NEFCO'S POWERS SUPERSEDE THOSE OF LOCAL GOVERNMENTS?**

No, regional planning organizations, such as NEFCO, do not change the boundaries or authority of existing jurisdictions. However, through NEFCO, a variety of regional issues are discussed and actions taken or recommended. NEFCO does not have the authority to force member governments to comply with its decisions, but it does use a variety of methods to encourage voluntary participation in policy development and implementation. For example, NEFCO prepares and adopts regional water quality management and economic development plans which increase the Region's eligibility for federal funding consideration; it reviews applications for federal funds from local governments and the private sector in Summit County under the Intergovernmental Review process; and it is used by its member local governments to make new development initiatives which are multi-jurisdictional in nature.



## **HOW IS NEFCO FUNDED?**

From its inception, NEFCO has been supported by local dues which are utilized to attract federal and state grants to carry out the planning program. Local governments contribute \$190,879/year on an eighteen cents per capita basis or as determined annually by the Board. Funds supplied by local units of government are used to match those of state and federal programs. These funds come from a variety of sources, including the U.S. Economic Development Administration (EDA), the Ohio Environmental Protection Agency (OEPA), the Ohio Department of Natural Resources, and from other agencies and local governments.

## **WHAT ARE SOME OF NEFCO'S ACCOMPLISHMENTS TO DATE?**

- The NEFCO Region's designation as an Economic Development District has increased the area's advantage in securing federal grants to develop plans and programs that address economic development problems.
- NEFCO spearheaded the application process which resulted in the awarding of a grant of authority to the Akron-Canton Regional Airport Authority to establish a foreign trade zone at the airport. The foreign trade zone, now an integral part of a nine-county trade consortium (NEOTEC), promotes exporting by area firms and provides the area with an additional and powerful development tool.
- NEFCO has provided direct Economic Development Administration (EDA) technical assistance to several units of local government. In 2008, NEFCO's coordinating assistance led to the awarding of \$1.5 million to the regional entity JumpStart, Inc. The Ohio State University, Ohio Agricultural Research and Development Center in Wooster received \$744,091 for a renovation project to start its BioHio Research Park. The City of Akron was awarded a \$1,750,000 grant to renovate its industrial incubator. Other recipients of EDA funds include Stark Development Board and the Cities of Louisville, Canton, and Barberton. The City of Louisville's Drinking Water Treatment and Water Supply Improvement Project received a \$695,500 EDA grant in to assist in the construction of an untreated well water supply field and associated distribution facilities. The direct beneficiary of the project was the J & L Specialty Steel Corporation, the city's largest employer. The City of Akron received \$1.17 million in EDA funding for an industrial incubator expansion project. In 2000 the EDA approved providing \$1.25 million to the City for its Massillon Road Industrial Park project. Canton received EDA funds to construct a discharge pipeline. The City of Barberton also was awarded funds for its revolving loan fund. In 2010, several entities in the region received EDA grants: the Cities of Barberton and Twinsburg, Summit County, NEFCO, JumpStart, Inc., NorTech, and the University of Akron's Research Foundation/Austen BioInnovation Institute. Barberton received nearly \$1.6 million for infrastructure improvements needed to develop the Lakeside Innovation Business Park. A joint application submitted by Twinsburg, Summit County and NEFCO will fund a recovery strategy to determine the effects of and actions following the closure of the Chrysler Stamping Plant. JumpStart, Inc. received \$1.5 million to expand its entrepreneurial business development programs throughout the Midwestern region (with plans to expand in Akron-Summit County). NorTech also

received an EDA award of \$300,000 for a regional study to determine promising advanced energy sectors in Northeast Ohio. The University of Akron's Research Foundation/Austen BioInnovation Institute was one of 6 recipients nationally to receive an "i6 Challenge" grant (\$1 million) to increase innovation and commercialization of new technologies for biomedical products and polymer science industries.

- NEFCO maintains an industrial park inventory for the four county economic development district.
- On an annual basis, the NEFCO General Policy Board adopts an areawide Comprehensive Economic Development Strategy (CEDS). The NEFCO CEDS report serves to summarize and assess the past year's activities and present new or modified program strategies. Every five years, NEFCO completes a CEDS Update, which evaluates the area's economic situation based on the analysis of relevant data of the area and surrounding region. The Update evaluates the existing and potential assets and liabilities of the NEFCO region that may affect new development and business/job retention. The most recent CEDS was completed in January 2010.
- Prepared a watershed action plan for Nimishillen Creek which has been endorsed by Ohio DNR and Ohio EPA. This endorsement enhances the area's eligibility and attractiveness for various environmental grants and loans.
- Consistency with the NEFCO Clean Water Plan, certified by the Governor and USEPA, enables local governments to be eligible for sewage treatment construction/improvement loans to assist them in meeting clean water requirements.
- NEFCO staff has assisted several of the region's communities in the preparation of their groundwater protection programs, including the Cities of Barberton, Rittman, Orrville and Wooster, Portage County (Shalersville) and the Villages of Canal Fulton, Minerva, Waynesburg, Navarre, Mantua, Marshallville, Lakemore, Doylestown, and Bolivar.
- NEFCO was named by the Director of the Ohio EPA to the Cuyahoga Coordinating Committee, which is charged with the responsibility of preparing the remedial action plan, or cleanup plan for the Cuyahoga River's Area of Concern.
- NEFCO has conducted several watershed studies designed to better understand actual or potential pollution threats. These studies are used to qualify these areas for federal and/or state grants. Examples include Sippo Lake and Nimishillen Creek (Stark County), Upper Tuscarawas River, Middle Cuyahoga River, and Yellow Creek (Summit County), and Killbuck and Sugar Creeks (Wayne County).
- NEFCO also provides coordination and technical assistance in the areas of population and economic studies, rural planning, human services, and open space and recreation.

- As an affiliate of the Ohio Department of Development's Office of Strategic Research and depository for census data, the dissemination of various material continues to remain a fundamental task of NEFCO in order to heighten public awareness and encourage public participation.

For information on any of these accomplishments, please call NEFCO, (330)252-0337; FAX (330)252-0664.

# Little Cuyahoga River

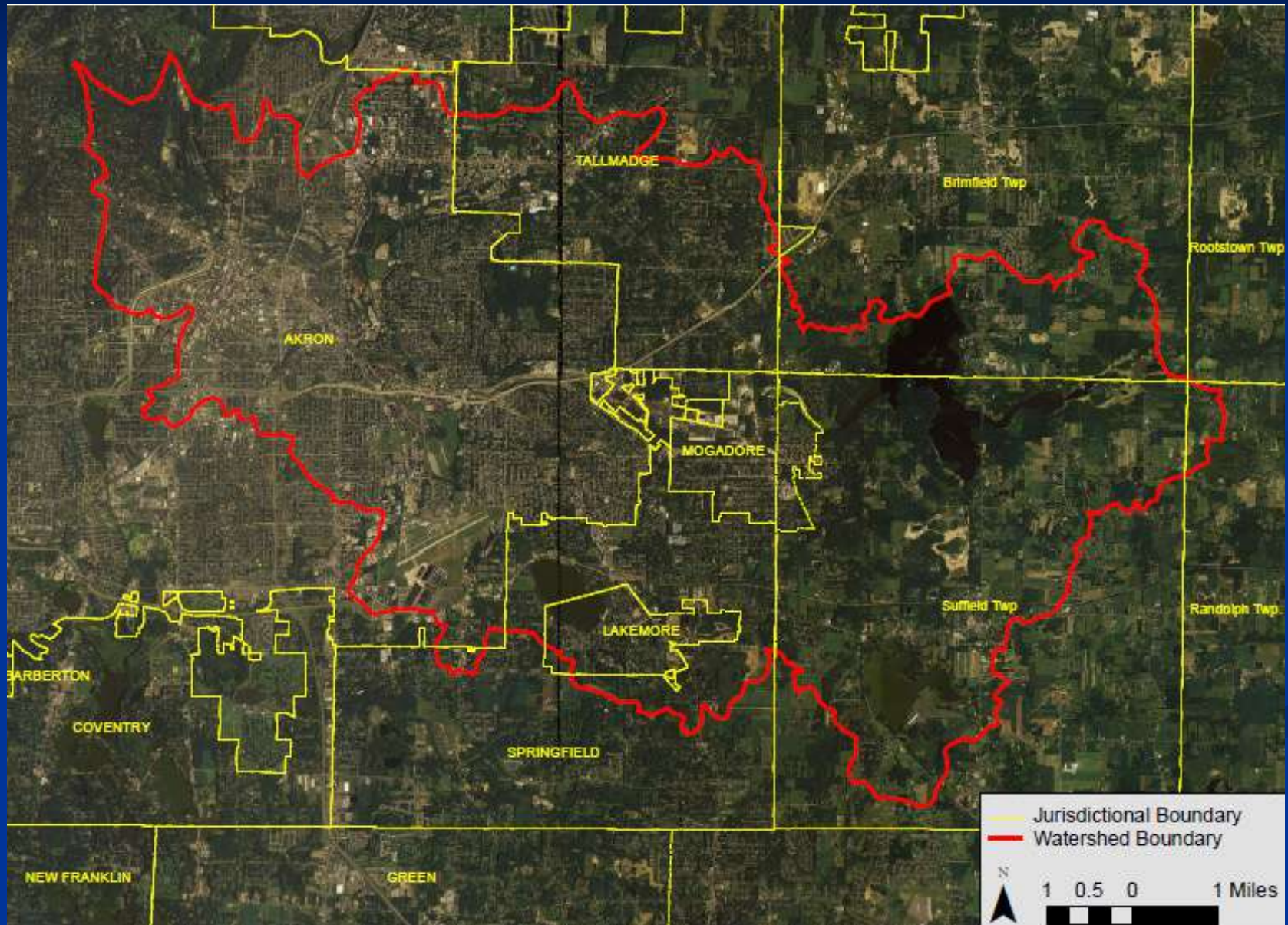
Public Meeting

Wednesday, September 29, 2010

Goodyear Branch Library

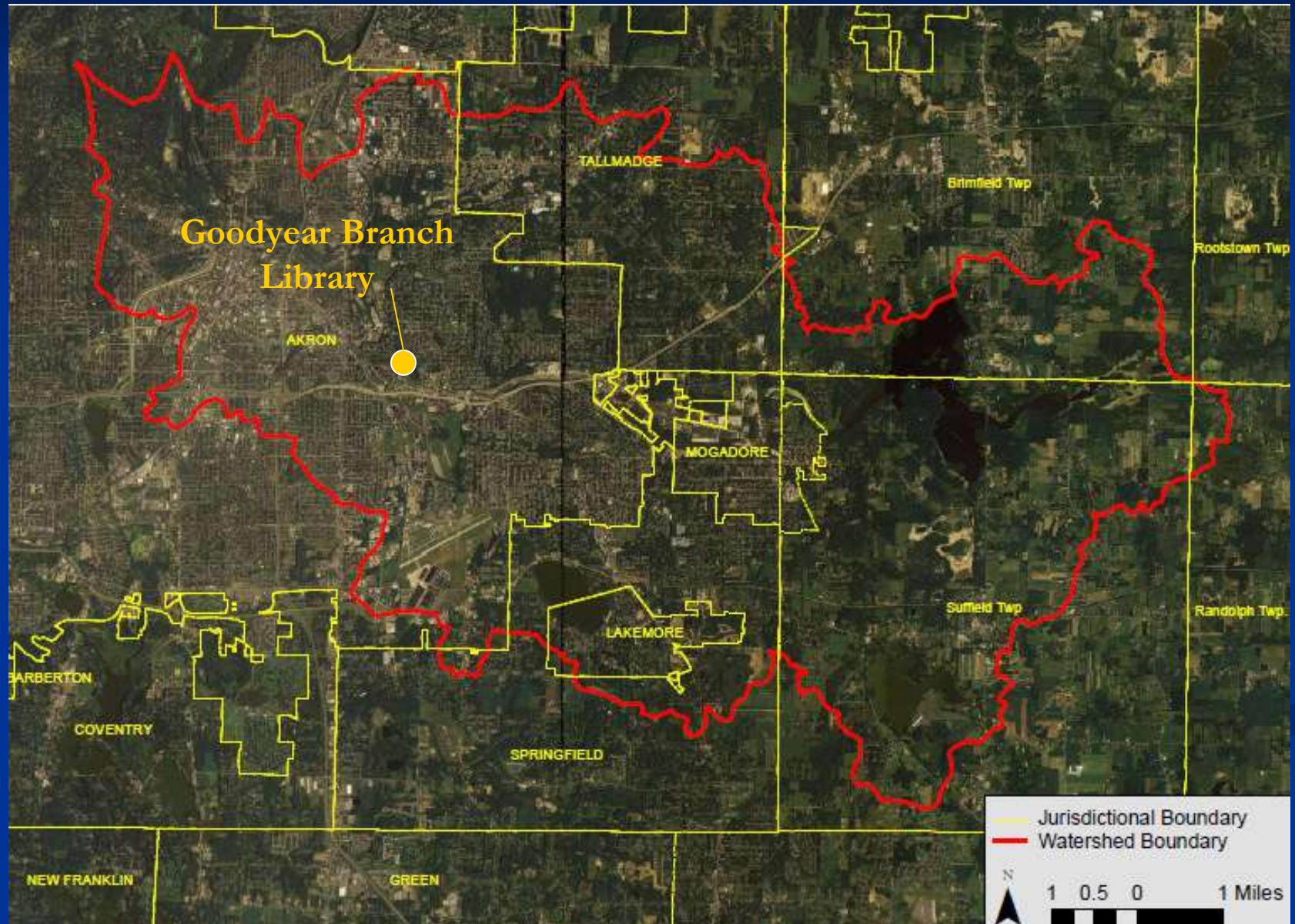
2:00 – 4:00 p.m.

# Welcome!





# Welcome!





## Cuyahoga River and Little Cuyahoga River Watersheds

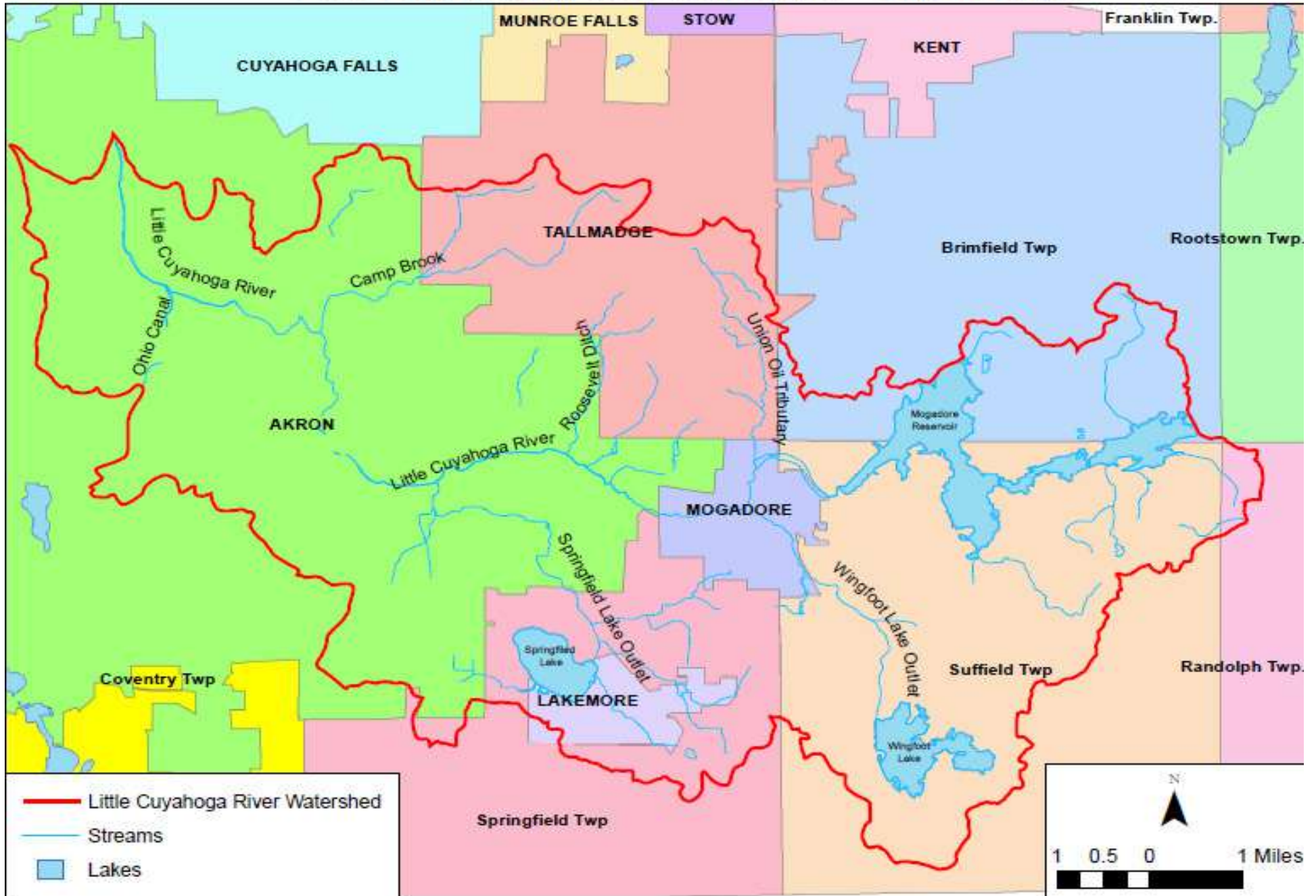


# Watershed Characteristics

- Tributary to the Cuyahoga River
- Summit and Portage Counties
- Drains 61.7 mi<sup>2</sup>
- Ohio Canal
- TMDL Completed 2003
- Below Gorge Dam

Draft

# Little Cuyahoga River Watershed - Jurisdictions



# Watershed Characteristics

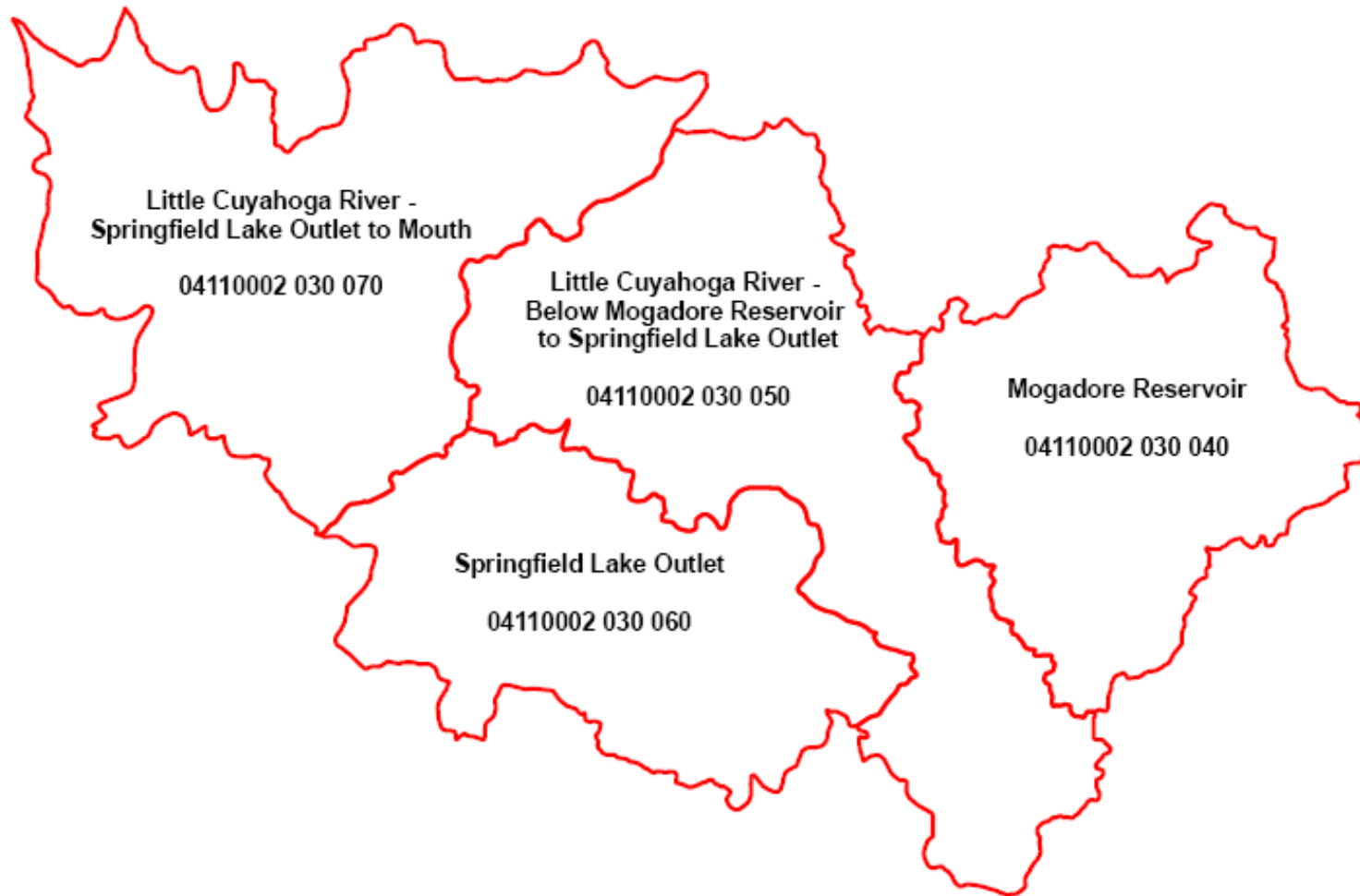
- Little Cuyahoga River is 17.4 Miles Long
- Springfield Lake, Wingfoot Lake, and Mogadore Reservoir.
- Primary Tributaries:
  - Ohio Canal\*
  - Camp Brook
  - Springfield Lake Outlet
  - Roosevelt Ditch
  - Union Oil Tributary
  - Wingfoot Lake Outlet



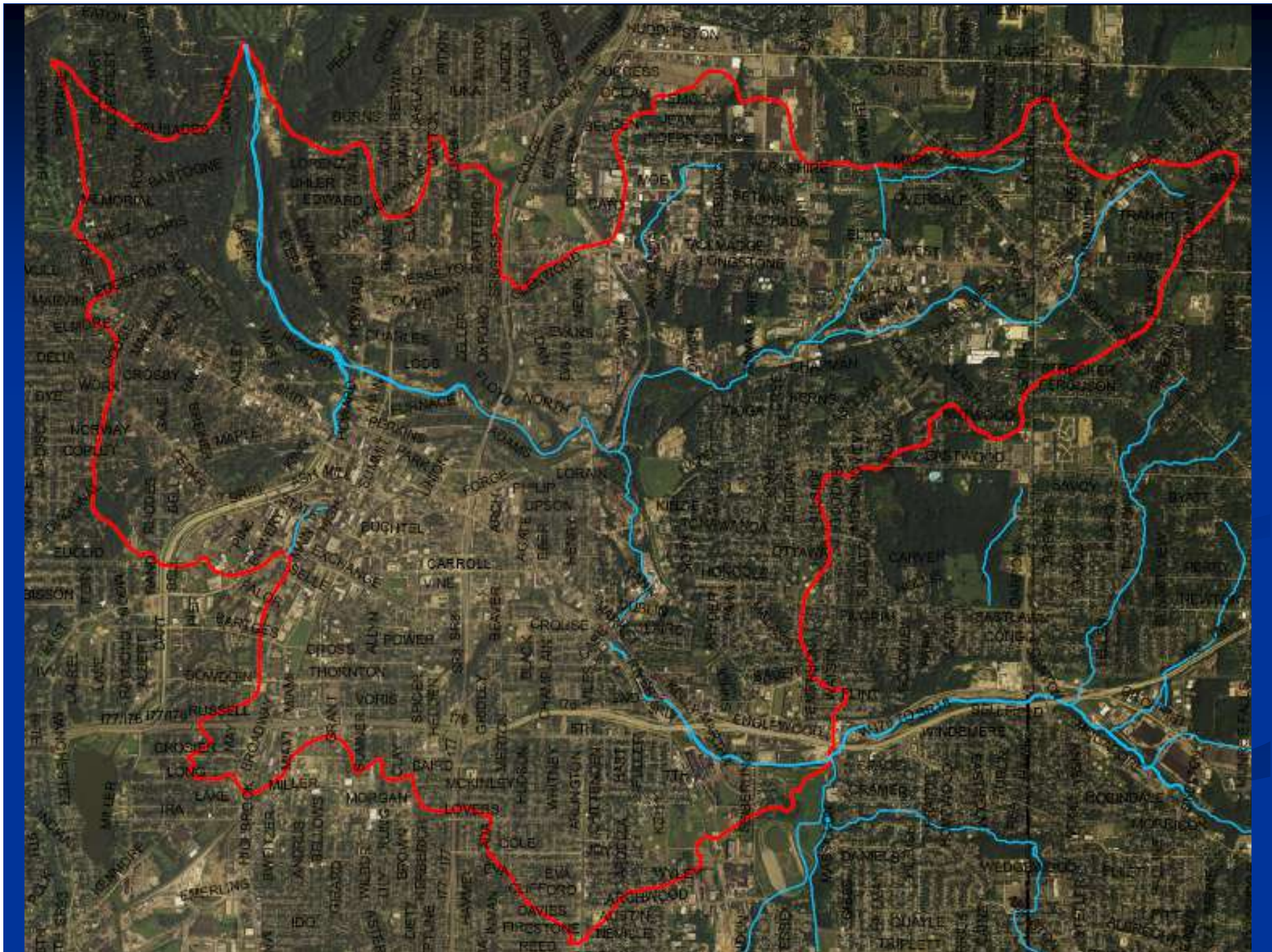
# Watershed Characteristics

- Four HUC 14 Watersheds
- Two Counties
- Two Cities
- Two Villages
- 4 Townships
- “The Little Cuyahoga River subwatershed drains the Akron metropolitan area and is among the most urbanized and densely populated in the state.” – *Ohio EPA, Cuyahoga River TMDL*

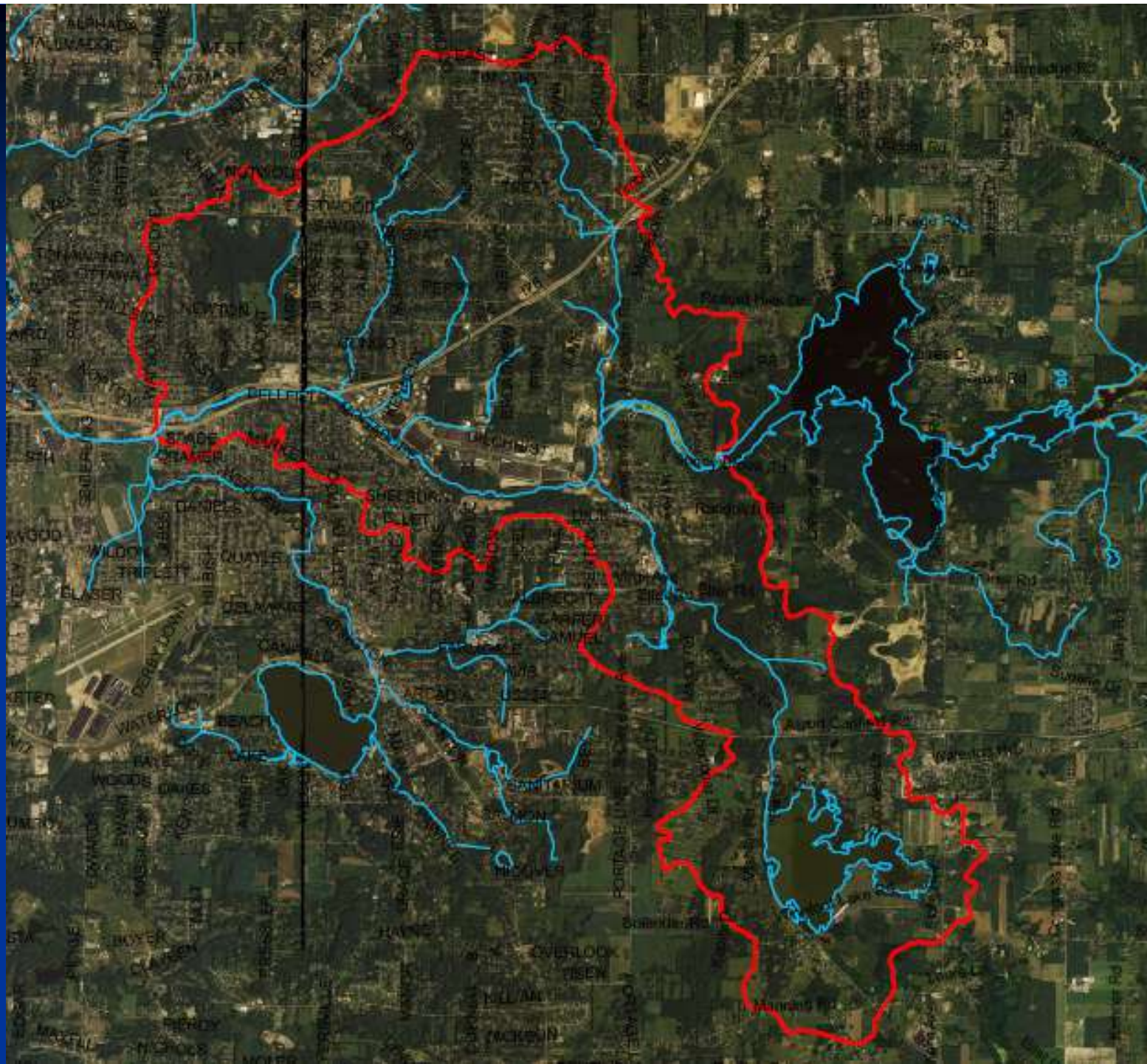
# HUC Watersheds



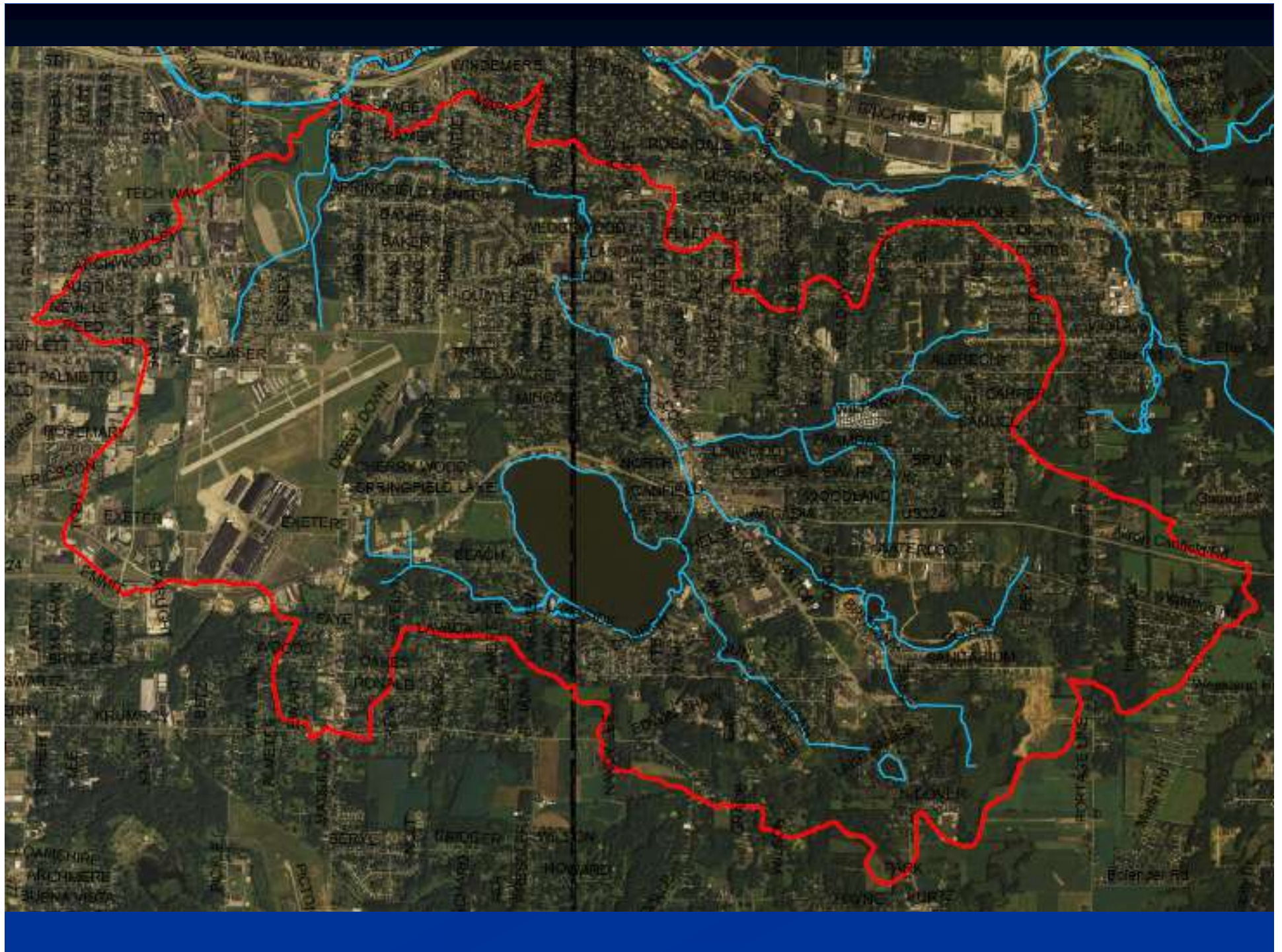




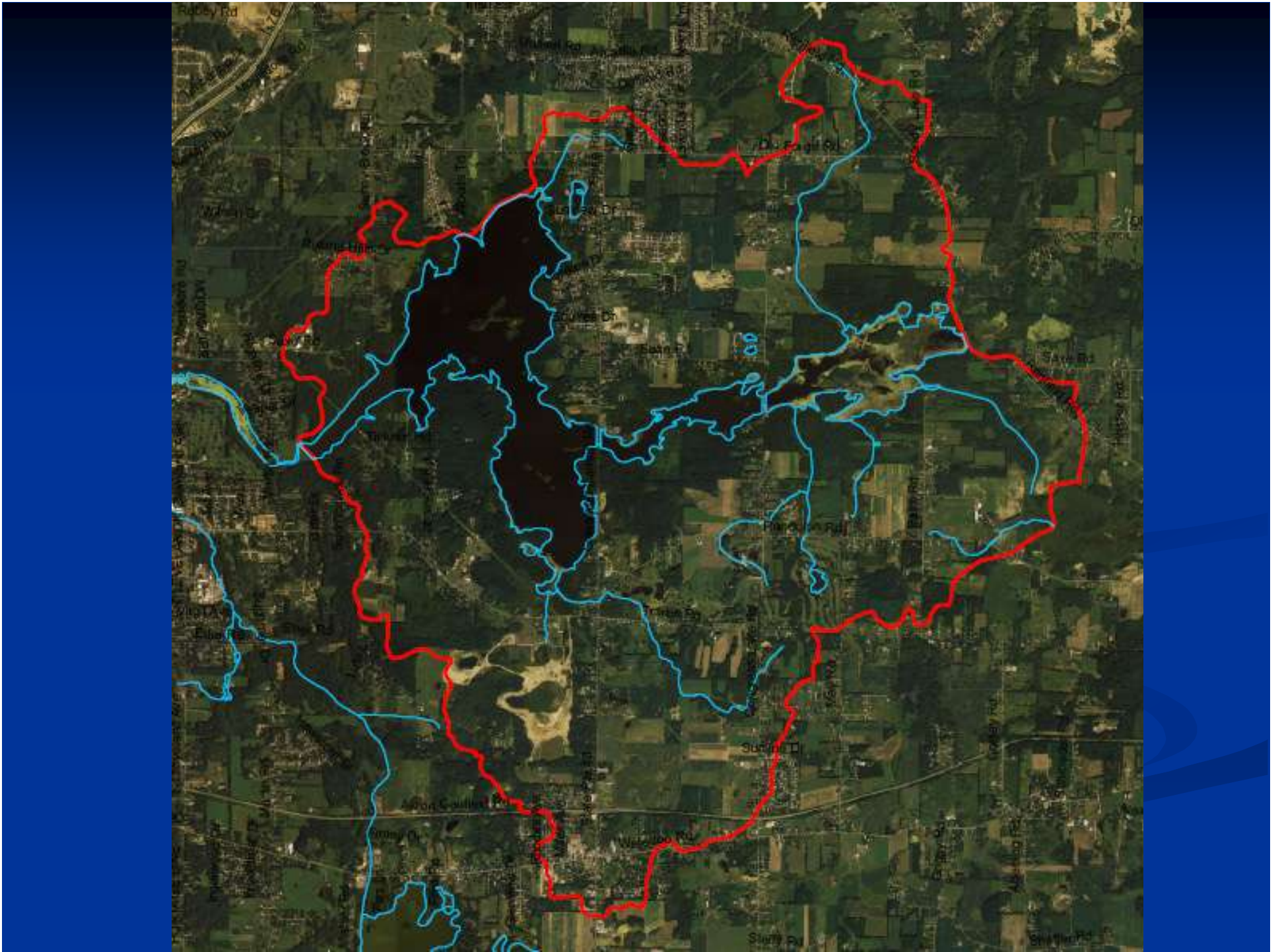






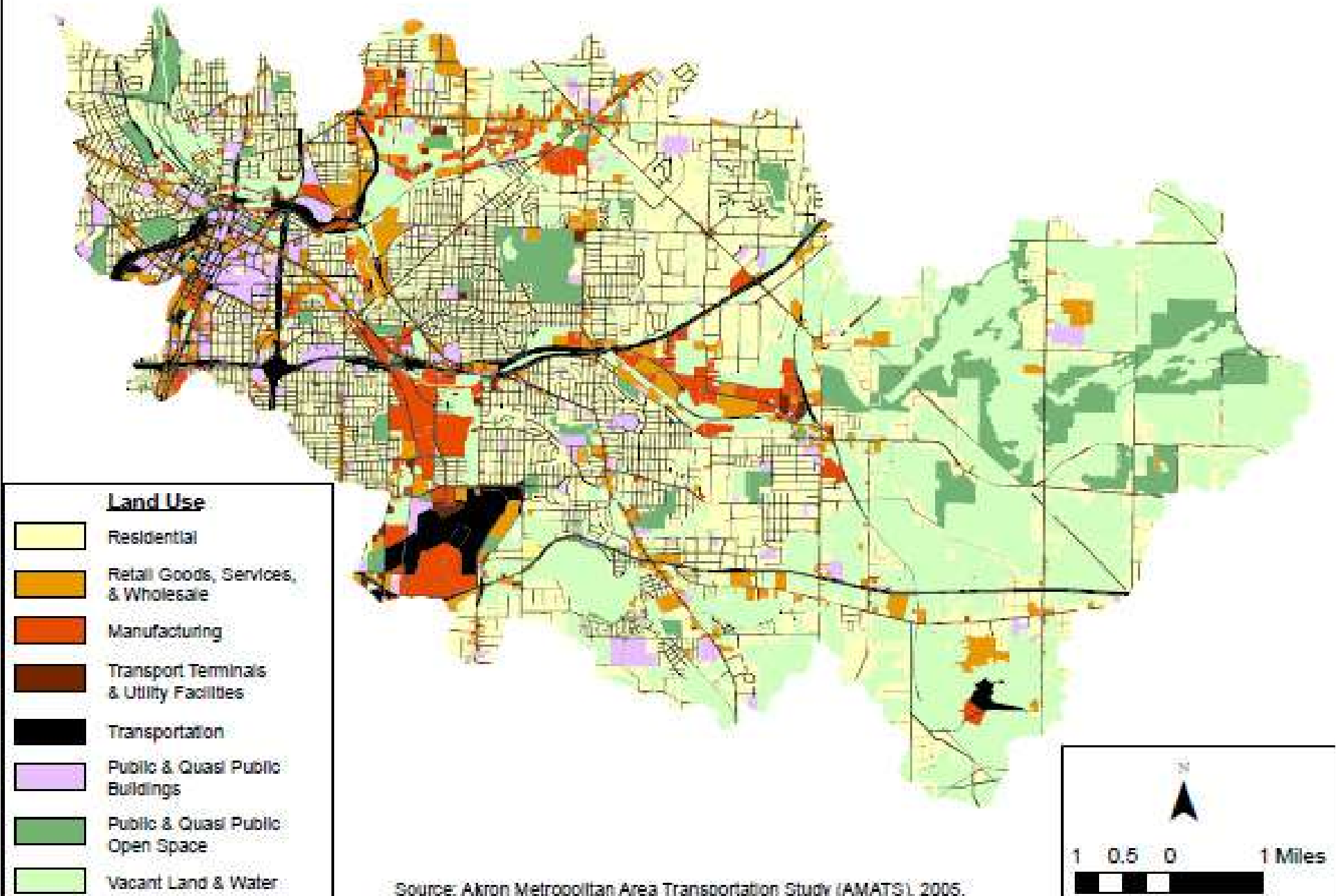






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# Little Cuyahoga River Watershed - Land Use, 2005



Source: Akron Metropolitan Area Transportation Study (AMATS), 2005.

# 2005 Land Use Highlights

- 30.6% Residential
- 5.8% Retail Goods, Services, and Wholesale
- 3.6% Manufacturing
- 13.5% Transportation Related
- 10.6 % Public Buildings and Lands
- 35.6% “Vacant Land” – Wetlands, Flood Plains, Water, Mineral Extraction, etc.
- 0.3% Not Categorized

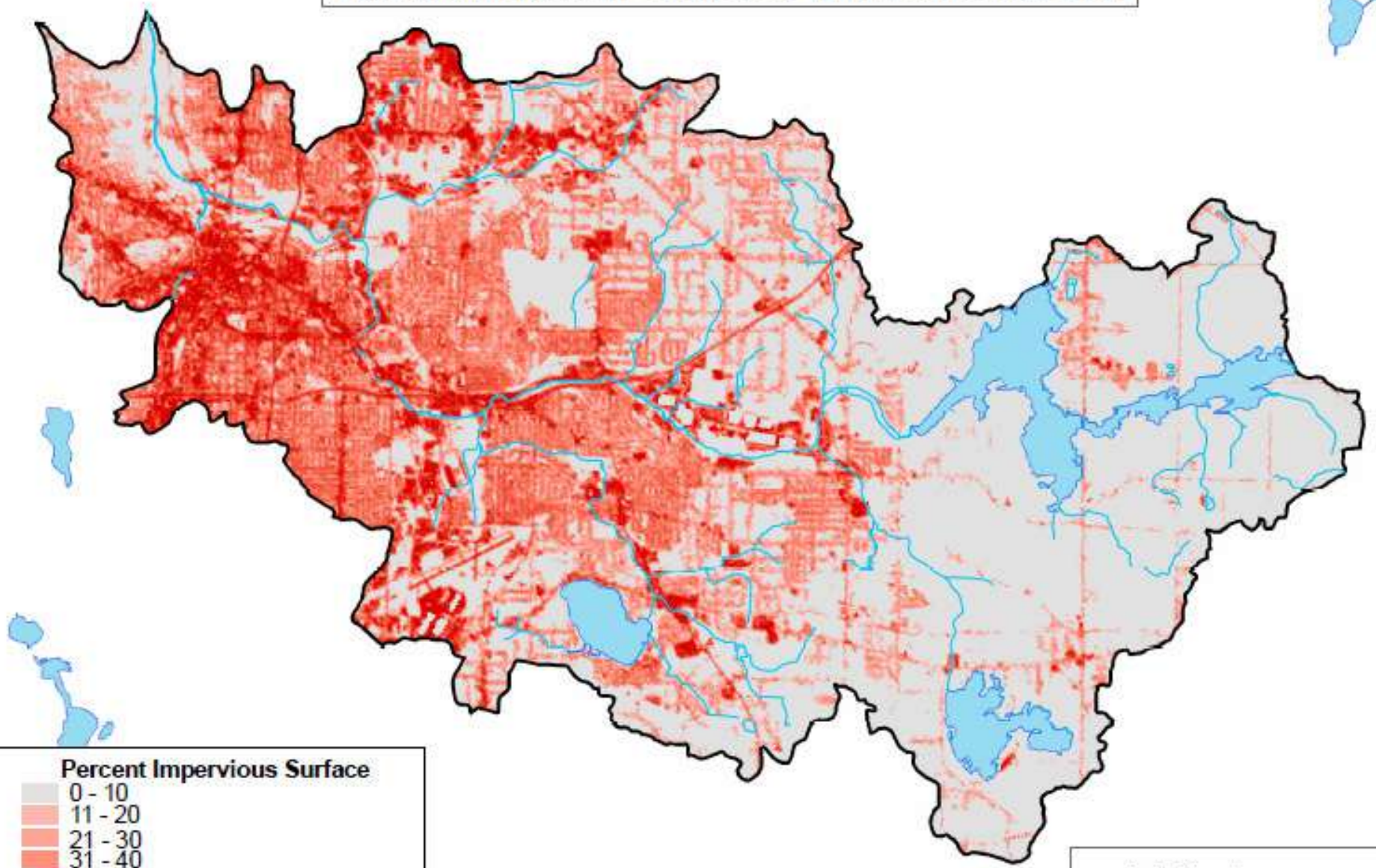


# 2005 Land Use

- “Vacant Land” = 13,414 Acres or 21 mi<sup>2</sup>
- Single Family Residential = 13,050 Acres (28%)
- Streams and Lake = 2162 Acres
- Rubber and Plastics Industry = 653 Acres
- Little Cuyahoga River Goes from Open Space to Heavily Urban.
- Good Riparian Areas Near the Mouth – Towpath Trail

DRAFT

# Little Cuyahoga River Watershed - Impervious Ares, 2001



## Percent Impervious Surface

- 0 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 50
- 51 - 60
- 61 - 70
- 71 - 80
- 81 - 90
- 91 - 100

Legend:

- Lake/Pond
- Stream
- Watershed Boundary

Scale:

N

1 0.5 0 1 Miles

# Impervious Analysis

- Watershed is 24% Impervious
  - Mogadore Reservoir = 3.1%
  - Wingfoot Lake to Springfield Lake Outlet = 17.6%
  - Springfield Lake Outlet = 26.8%
  - Springfield Lake Outlet to Mouth = 43.6%
- **10% Rule** – Water Quality becomes impacted when a watershed exceeds 10% Impervious (hard) areas
- Impervious Area >20% Typically Results in Poor Water Quality

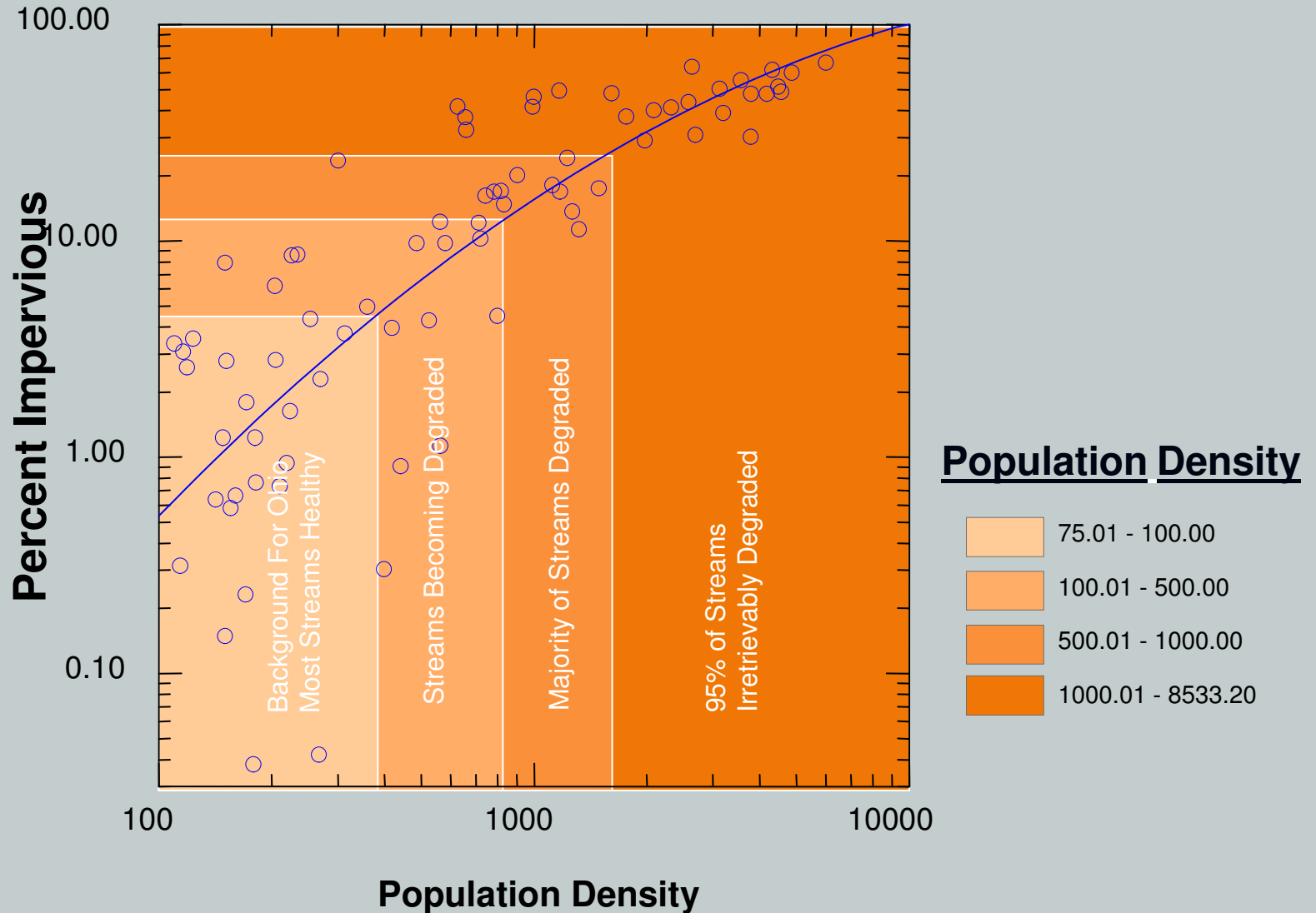


# Increased Impervious Lead To:

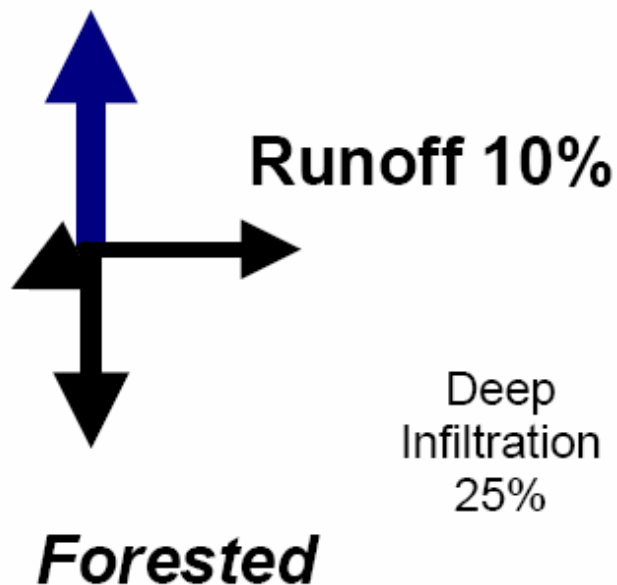
- Flooding
- Habitat Loss
- Erosion
- Channel Widening
- Stream Alterations
- Decreased Fish and Aquatic Insects
- Riparian Protection Can Help Offset Some of Issues

# Stream Quality in Relation to Population Density/Impervious Area

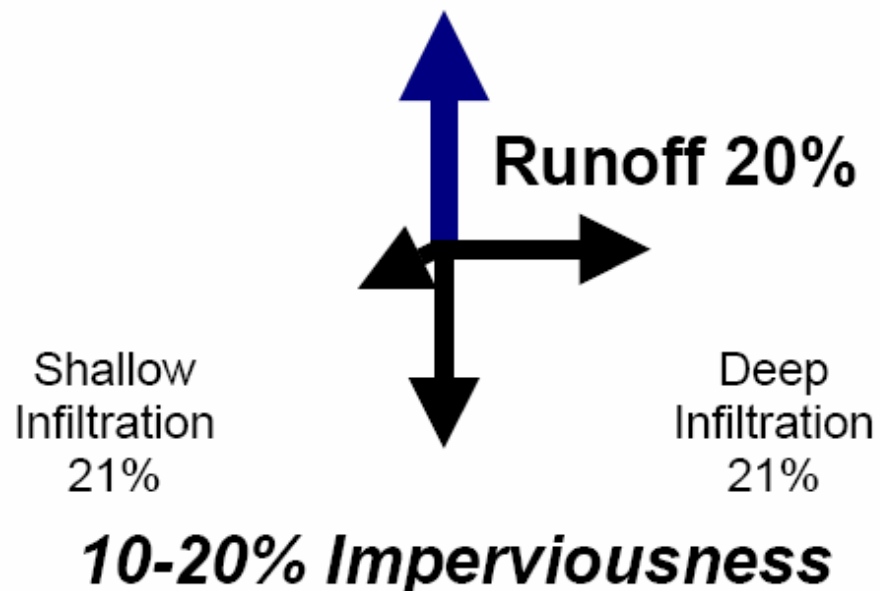
*(State-wide Ohio EPA Data)*



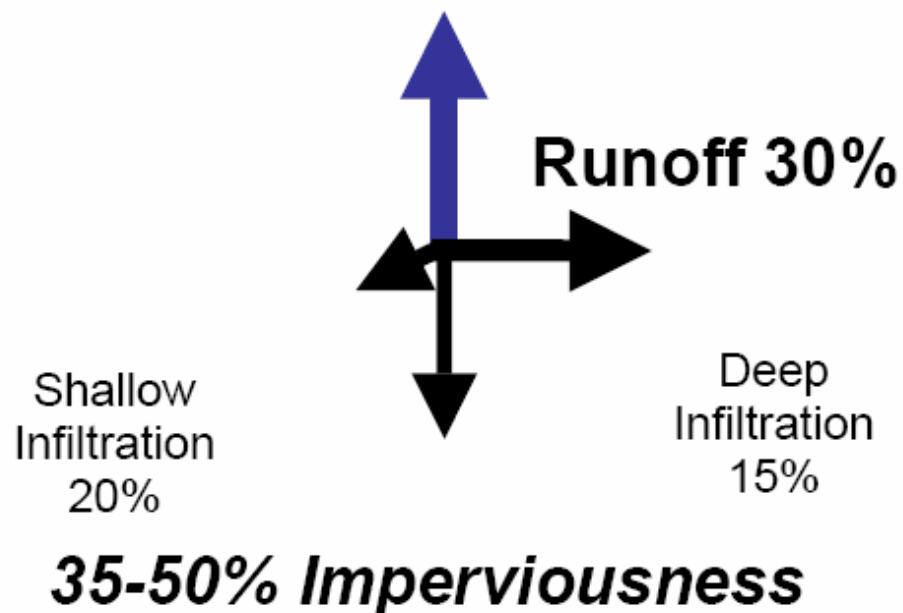
Evapo-transpiration 40%



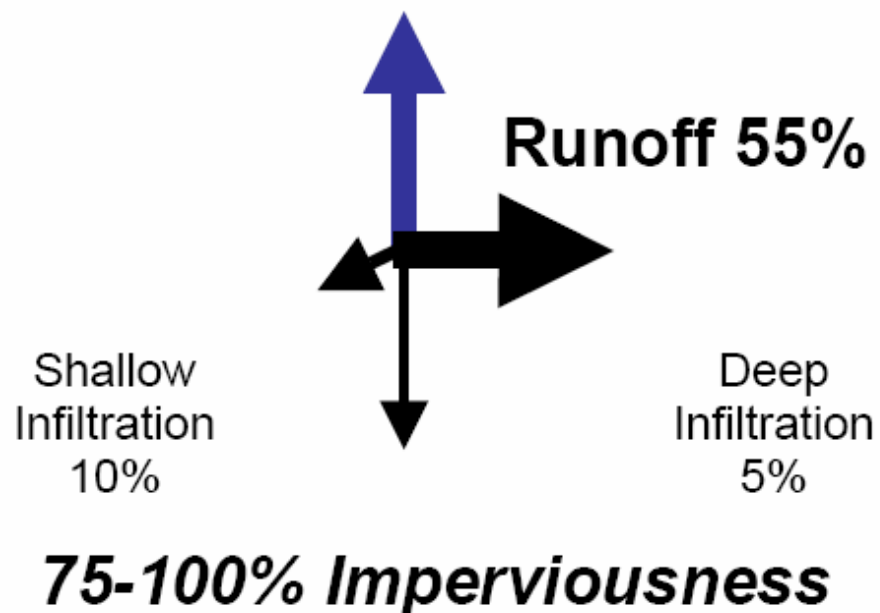
Evapo-transpiration 38%



Evapo-transpiration 35%



Evapo-transpiration 30%







# Water Quality Data

- Ohio EPA Technical Support Document (1998)
- Lower Cuyahoga River TMDL (2003)
- City of Akron
- Summit SWCD
- Blue-Green Algae Monitoring

# TMDL Water Quality Characteristics

- **Lower Little Cuyahoga:** Harden Urban Landscape; CSO Discharges; Marginal Physical Habitat, Substrate, and Riparian Quality.
- **Springfield Lake Outlet:** Urban/Industrial; Storm Water Runoff Issues; Bank Erosion; Embedded and Compacted Substrates; Sediment Pollution (PCBs, heavy metals, hydrocarbons).
- **Upper Little Cuyahoga River:** Rural/Suburban; Lack of In-Stream Habitat; High Copper Concentrations at Lake Outlets; Wingfoot Lake Contaminated Sediments.



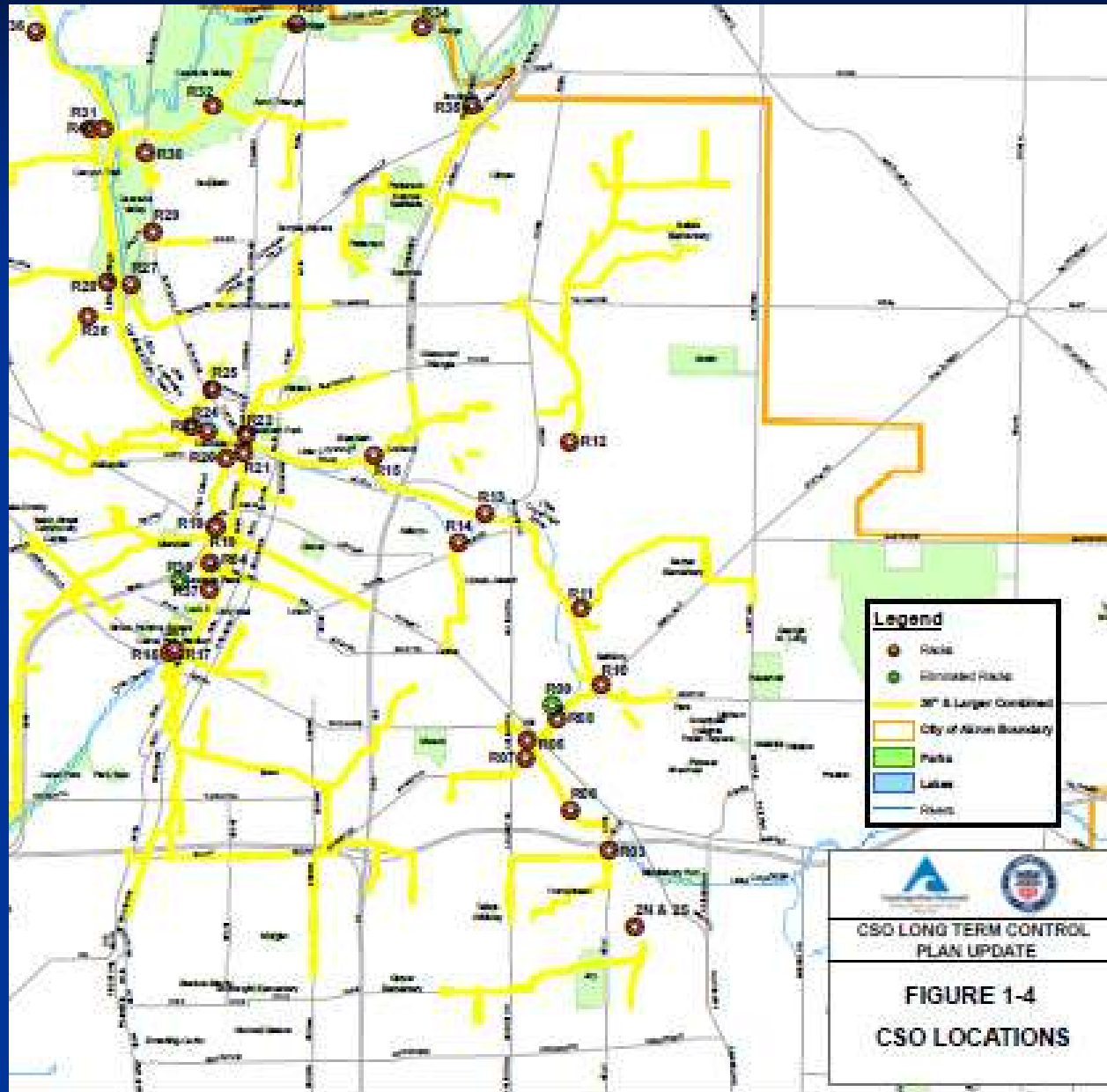
# Water Quality Attainment

- Not In Attainment for Biological and Recreational Use Standards.
- Reasons: CSOs, Habitat Loss, Polluted Runoff, Legacy Pollution, Dams, Dredging, Organic Enrichment
- Signs of Improvement!





# Little Cuyahoga River Watershed CSOs



# Combine Sewer Overflow

- Introduces nutrients, bacteria, and pathogens into the Little Cuyahoga
- 29 CSOs in the Little Cuyahoga River Watershed (includes Ohio Canal & Camp Brook)
- Rack 40 Project Reduced CSO Effluent by 35%
- Long Term Control Plan – Implemented Over the Next 18 Years

# Akron Rack 40 Project



- Combined Sewer Overflow (CSO) Elimination Project
- Hold 9.5 Million Gallons of Overflow
- Treated at Waste Water Plant
- Reduced CSO Discharges 35%
- Signs of Recovery Downstream





# Other Watershed Efforts

- Goodyear Headquarters Stream Restoration
- Lockheed Martin Haley Ditch Restoration
- Storm Water NPDES Programs – Phase I & II
- Wingfoot Lake
- Cuyahoga River RAP and Middle Cuyahoga River Action Plan
- Cuyahoga River Water Quality Projects

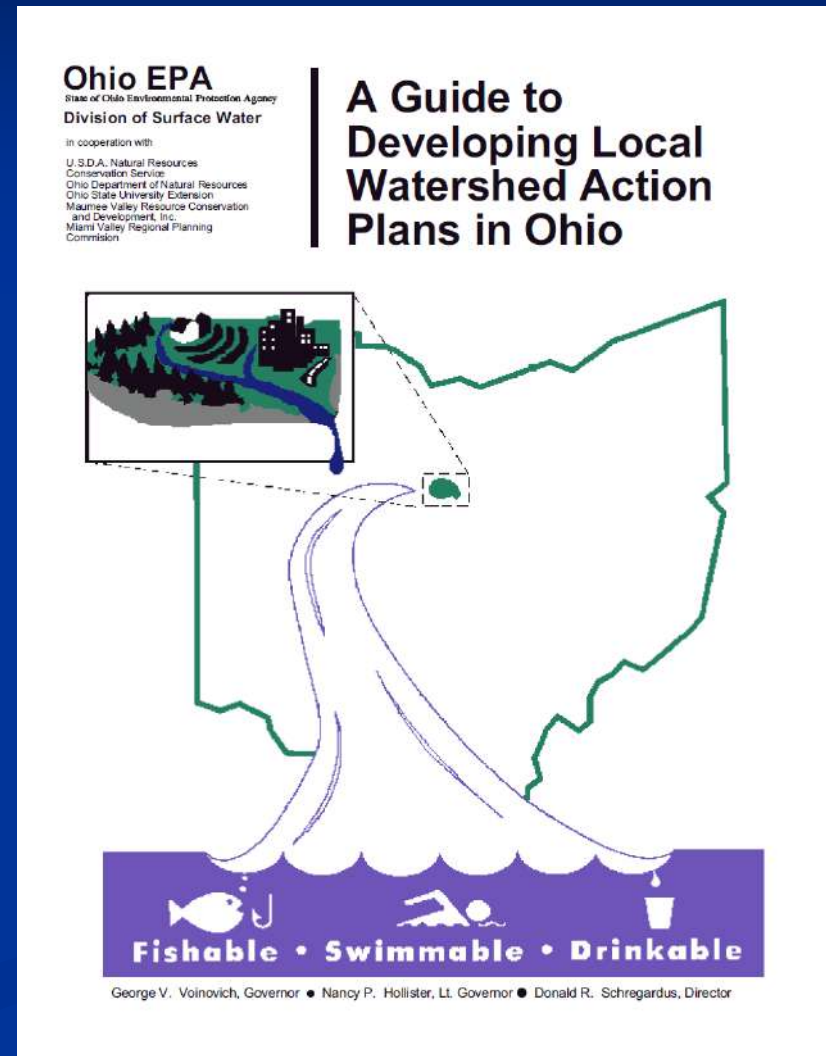
# Watershed Planning Options

- Two Watershed Planning Paths with State Endorsement Requirements and Incentives:
  - Watershed Action Plan
  - Balanced Growth Initiative
- Both Planning Paths Active in the Cuyahoga River Watershed & Northeast Ohio
- Incentives and Funding Options for Both



# WAP Basics

- Published in 1997
- 6 Chapters Plus Appendices
- Building Public Support, Water Resource Quality, Defining Problems, Setting Goals, and Implementation.
- Updated in 2003 – Appendix 8



# Appendix 8 Update

- Initial Document Offered Vague Guidance on Needed Content.
- Appendix 8 Update (Overly?) Provides Detailed Guidance on Action Plan Content.
- Provides Examples of Problem Statements and Implementation Plans.
- Must Comply with Appendix 8 to Receive State Endorsement from Ohio EPA and ODNR

# Appendix 8 Sections

1. Key Concepts
2. Introduction
3. Watershed Plan Development
4. Watershed Plan Inventory
5. Watershed Impairments
6. Watershed Restoration and Protection Goals
7. Implementation
8. Evaluation
9. Plan Update/Revision



# Balanced Growth Planning

- Jim White, Cuyahoga River RAP

# Group Discussion

- Continue with Watershed Planning Efforts?
- Best Planning Option?
- What is Good and Bad about the Watershed?
- Problems and Obstacles?
- What Can the Little Cuyahoga Look Like in 20 Years?
- Who are we Missing at the Table?
- Additional Data?

# QUESTIONS??



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Eric Akin

EAKin@nefcoplanning.org

330-252-0337