

# Ohio's Areas of Concern Program



Ohio Coastal Atlas



# Areas of Concern in Ohio

## Maumee

3<sup>rd</sup> Largest AOC in the Great Lakes

Sediment Remediation may be key Action



## Black

Lower 6 miles of Main Stem + French Creek

Final Management Actions Underway



## Cuyahoga

Lower 50 miles and its tributaries

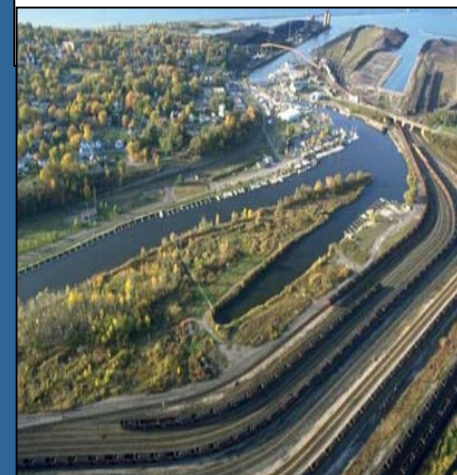
GLLA and GLRI - 5 years



## Ashtabula

Lower two miles of the main stem

Investments of nearly \$60 million in GLRI and GLLA





# Progress in Ohio's AOCs



Total  
BUIs

**36**

BUIs  
Removed

**9**

BUIs to  
GO

**25**

Actions  
List  
Completed

**2**

Actions  
Identified

**40**

Actions  
Underway

**20**

Actions  
Completed

**5**

# What is next for Ohio's AOCs?

- Management Actions List in All AOCs
- Complete Management Actions in All AOCs
- Removal of BUIs
- Delisting of AOCs  
Hint: Ashtabula!
- Celebration of Ohio AOC milestones with all our Partners



# Cuyahoga – 50 Years!







# Rising Above the Ashes



Bill Zawiski (OEPA)  
Jennifer Grieser (Chair, Cuyahoga River AOC Advisory Committee)



# Cuyahoga River 1965 – “Site of the 1969 Fire”



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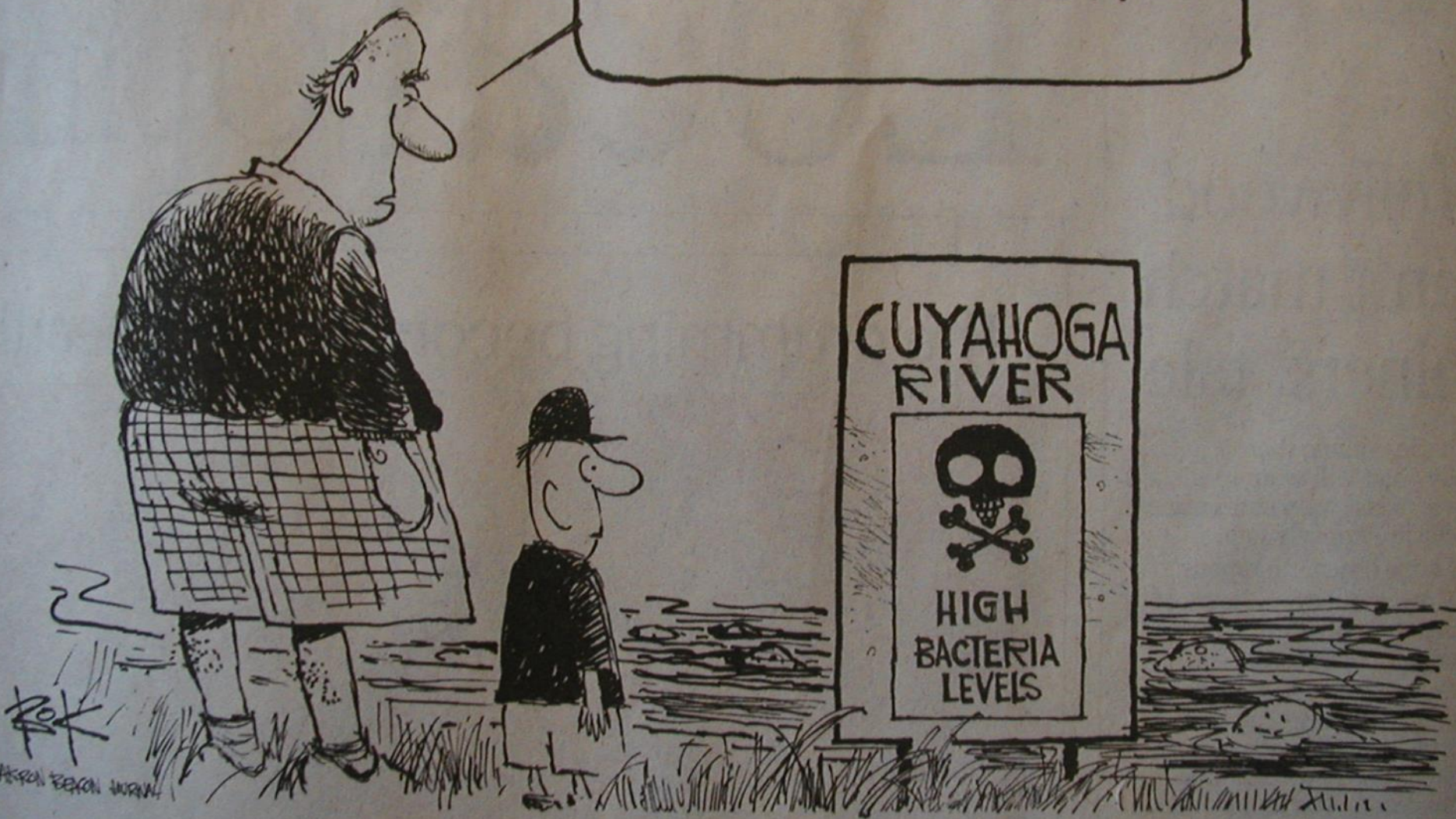
# The Cleveland Industrial Flats 1965







IN THE OLD DAYS, THE FIRE  
USED TO STERILIZE IT.





Some river! Chocolate-brown, oily, bubbling with subsurface gases, it oozes rather than flows. 'Anyone who falls into the Cuyahoga does not drown,' Cleveland's citizens joke grimly. 'He decays.' The Federal Water Pollution Control Administration dryly notes: 'The lower Cuyahoga has no visible life, not even low forms such as leeches and sludge worms that usually thrive on wastes.' It is also--literally--a fire hazard. A few weeks ago, the oil-slicked river burst into flames and burned with such intensity that two railroad bridges spanning it were nearly destroyed. 'What a terrible reflection on our city,' said Cleveland Mayor Carl Stokes sadly.

Time Magazine

August 1, 1969



# Fast Forward Fifty Years...



**American Rivers**  
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AMERICA'S RIVERS

THREATS & SOLUTIONS

## AMERICAN RIVERS NAMES CLEVELAND'S CUYAHOGA "RIVER OF THE YEAR"

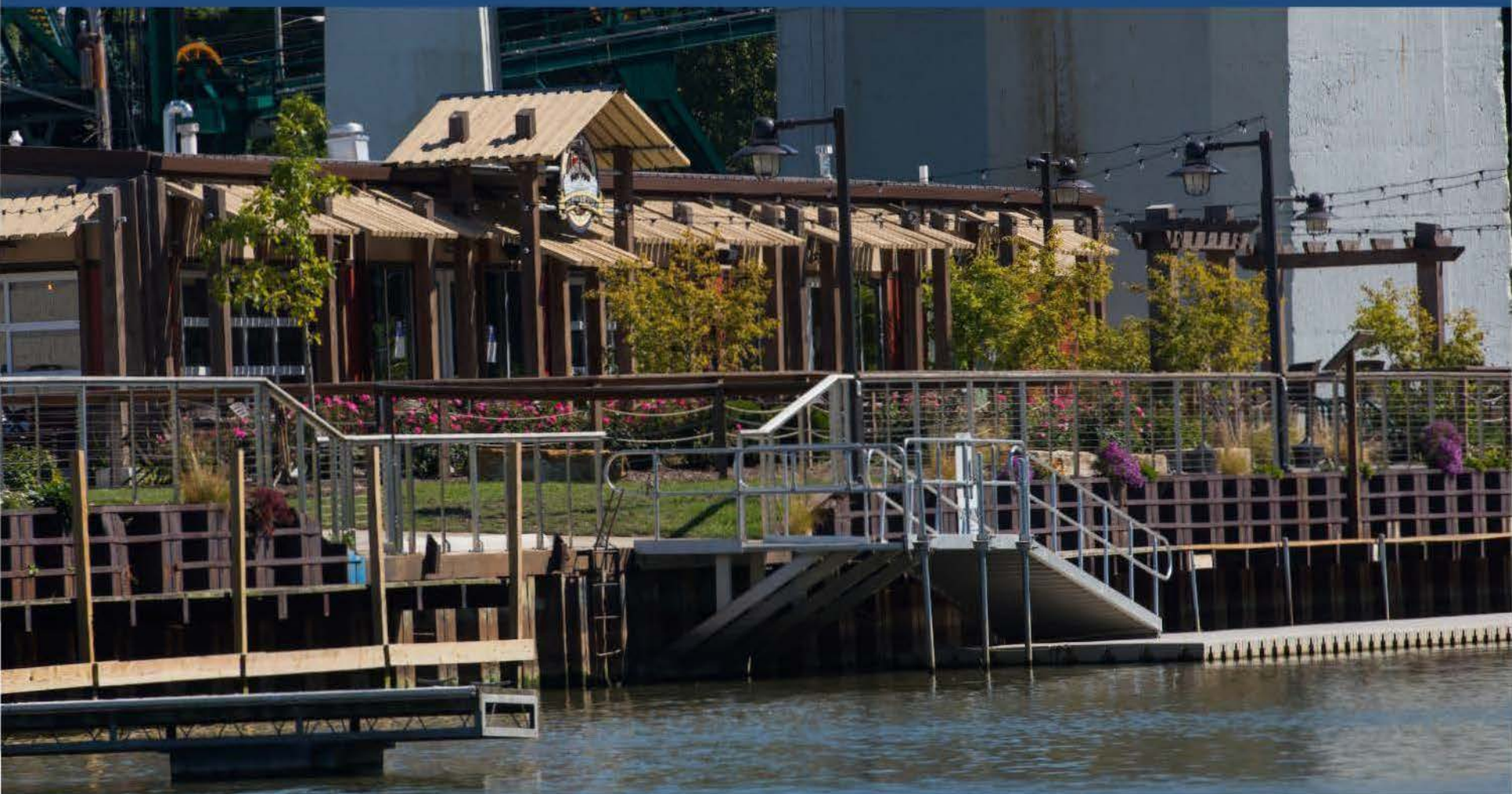


<https://www.americanrivers.org/cuyahoga50/index.html>









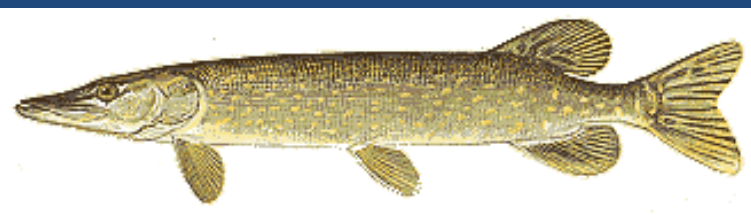












## Cuyahoga River 1984-2017

Common Name	Total	Common Name	Total
Alewife	2	Northern Pike	79
Bigmouth Buffalo	23	Orangespotted Sunfish	2
Bigmouth Shiner	2	Pumpkinseed Sunfish	1463
Black Bullhead	9	Quillback	103
Black Crappie	317	Rainbow Darter	179
Black Redhorse	5	Rainbow Trout	67
Bluegill Sunfish	2393	Redear Sunfish	4
Bluntnose Minnow	10772	Redfin Pickerel	22
Bowfin	3	Redside Dace	3
Brook Silverside	93	River Chub	353
Brook Stickleback	1	Rock Bass	816
Brown Bullhead	201	Rosyface Shiner	1
Central Mudminnow	7	Round Goby	994
Central Stoneroller	11309	Sand Shiner	3284
Channel Catfish	1093	Sea Lamprey	2
Common Carp	4805	Shorthead Redhorse	907
Common Shiner	6276	Silver Redhorse	47
Creek Chub	2027	Silver Shiner	1
Emerald Shiner	8040	Silverstriped Minnow	297
Fantail Darter	111	Smallmouth Bass	3151
Fathead Minnow	337	Smallmouth Buffalo	34
Flathead Catfish	82	Spotfin Shiner	12359
Freshwater Drum	286	Spottail Shiner	41
Gizzard Shad	22766	Spotted Sucker	70
Golden Redhorse	1224	Stonecat Madtom	8
Golden Shiner	327	Striped Shiner	583
Goldfish	433	Suckermouth Minnow	21
Grass Carp	32	Trout-Perch	7
Green Sunfish	863	Walleye	21
Greenside Darter	1536	Warmouth Sunfish	103
Hornyhead Chub	78	Western Blacknose Dace	376
Johnny Darter	305	Western Mosquitofish	1
Largemouth Bass	1447	White Bass	554
Logperch	1049	White Crappie	98
Longear Sunfish	1	White Perch	1674
Longnose Gar	3	White Sucker	15739
Mimic Shiner	14	Yellow Bullhead	1374
Northern Hog Sucker	9111	Yellow Perch	268

**76 Species!**  
**134444 Total Fish**

## Fish in Cuyahoga River now OK'd for eating



Fish in Cuyahoga River now OK'd for eating

Published: 6:18 PM EDT March 19, 2019

Updated: 6:17 PM EDT March 19, 2019



# BUI 10b: Public Access & Recreation Impairments 2017



The five water trail segments offer different paddling experiences.



# BUI 11: Aesthetics 2017 ✓



**Public Law 92-500  
(The Clean Water Act)  
October 18, 1972**

**The objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.**

**This is THE DRIVING FORCE,  
CAUSE, IMPETUS  
for overall improved water quality  
in the United States!**



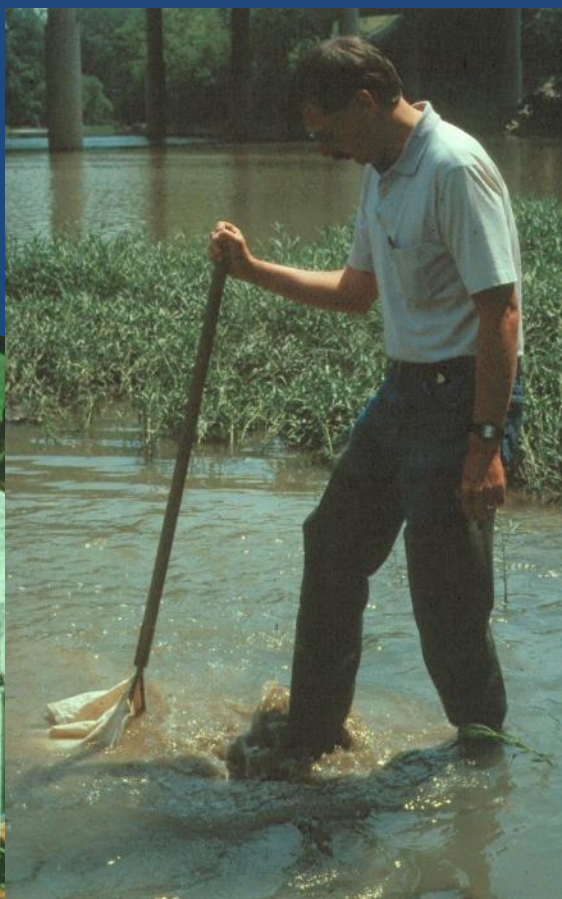
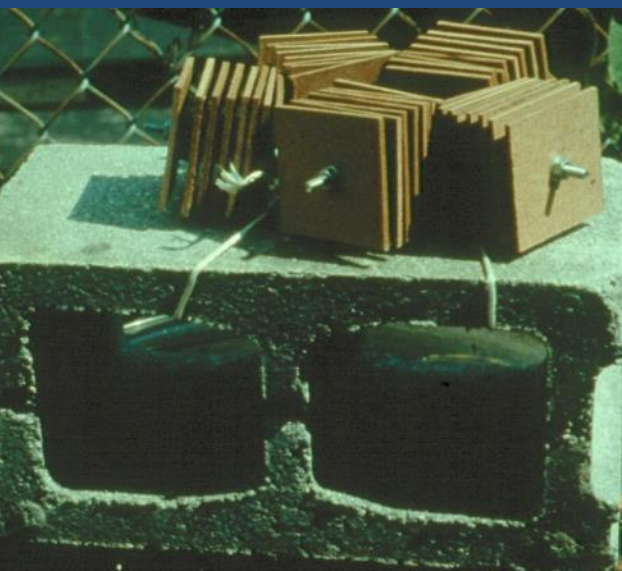
# WQ Conventional Approach







# Bug Pickers





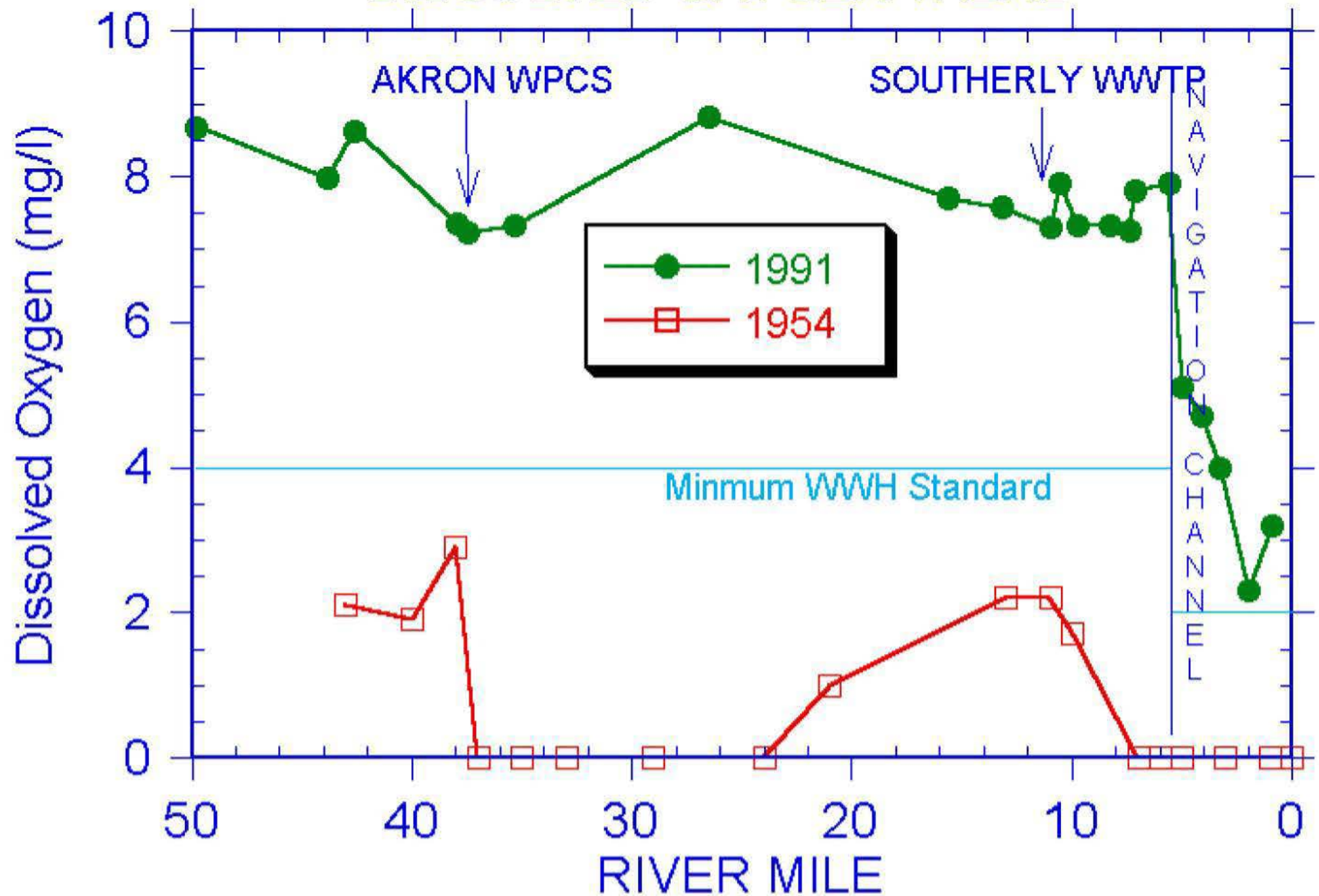


**Fish Kickers**



Ohio EPA Photos

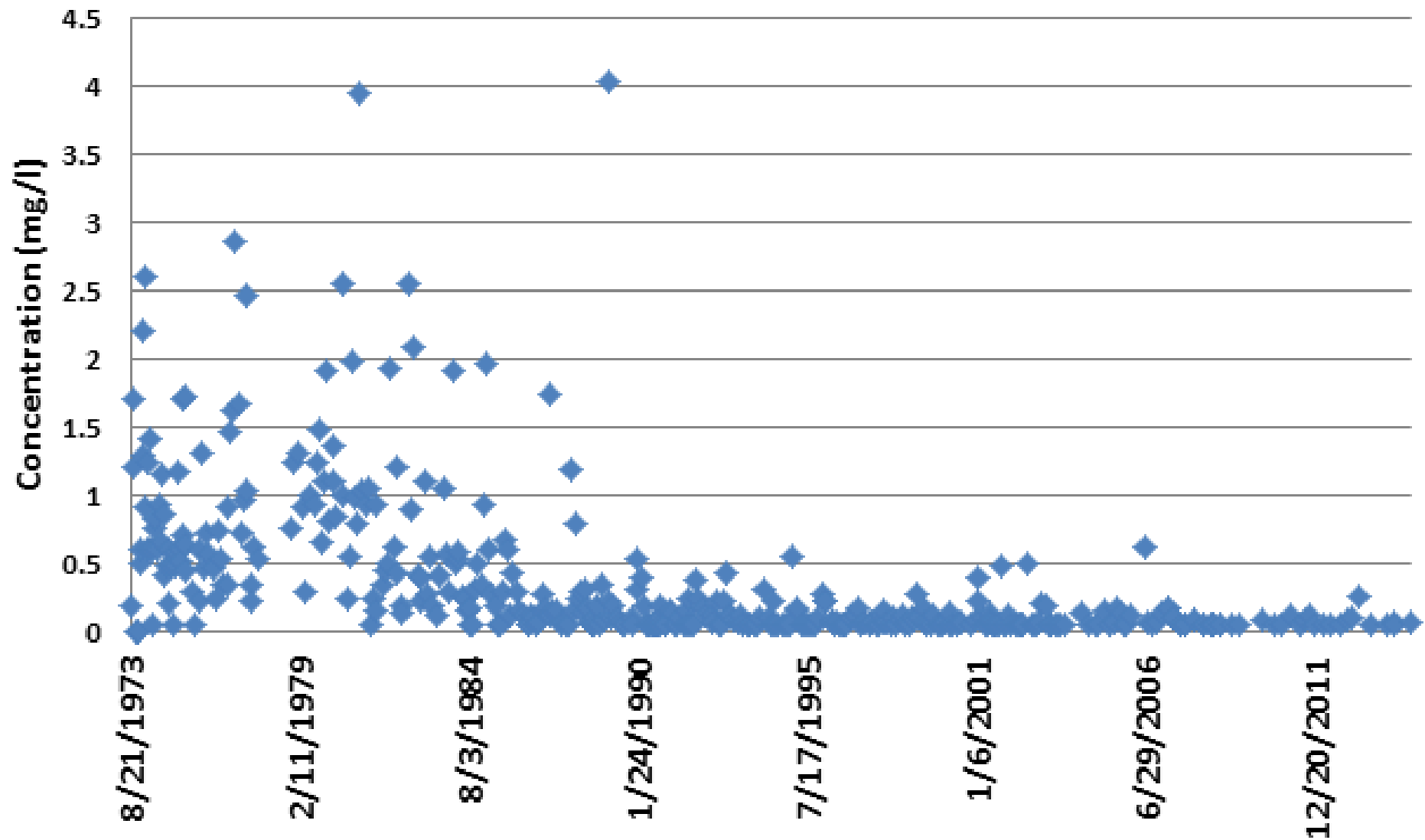
# CUYAHOGA RIVER DISSOLVED OXYGEN TREND





## Trend Data from Independence Gage

### Ammonia

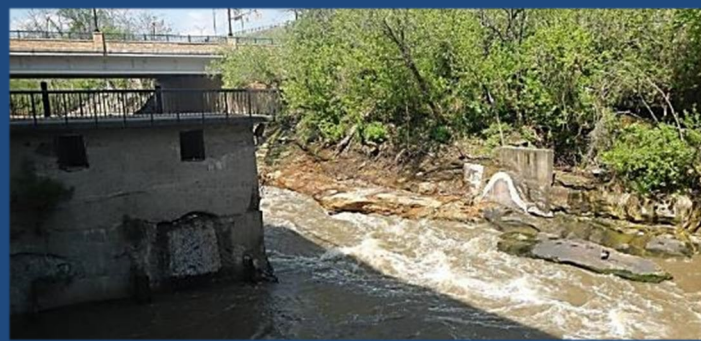




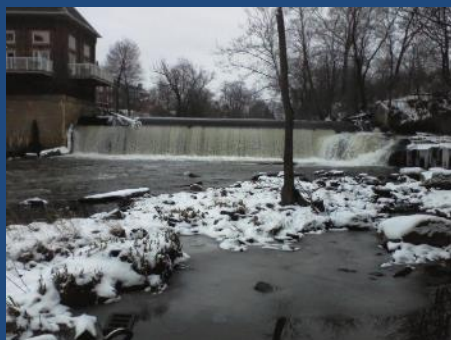
1 Dam...



2 Dams...



3 Dams...



4... No more!



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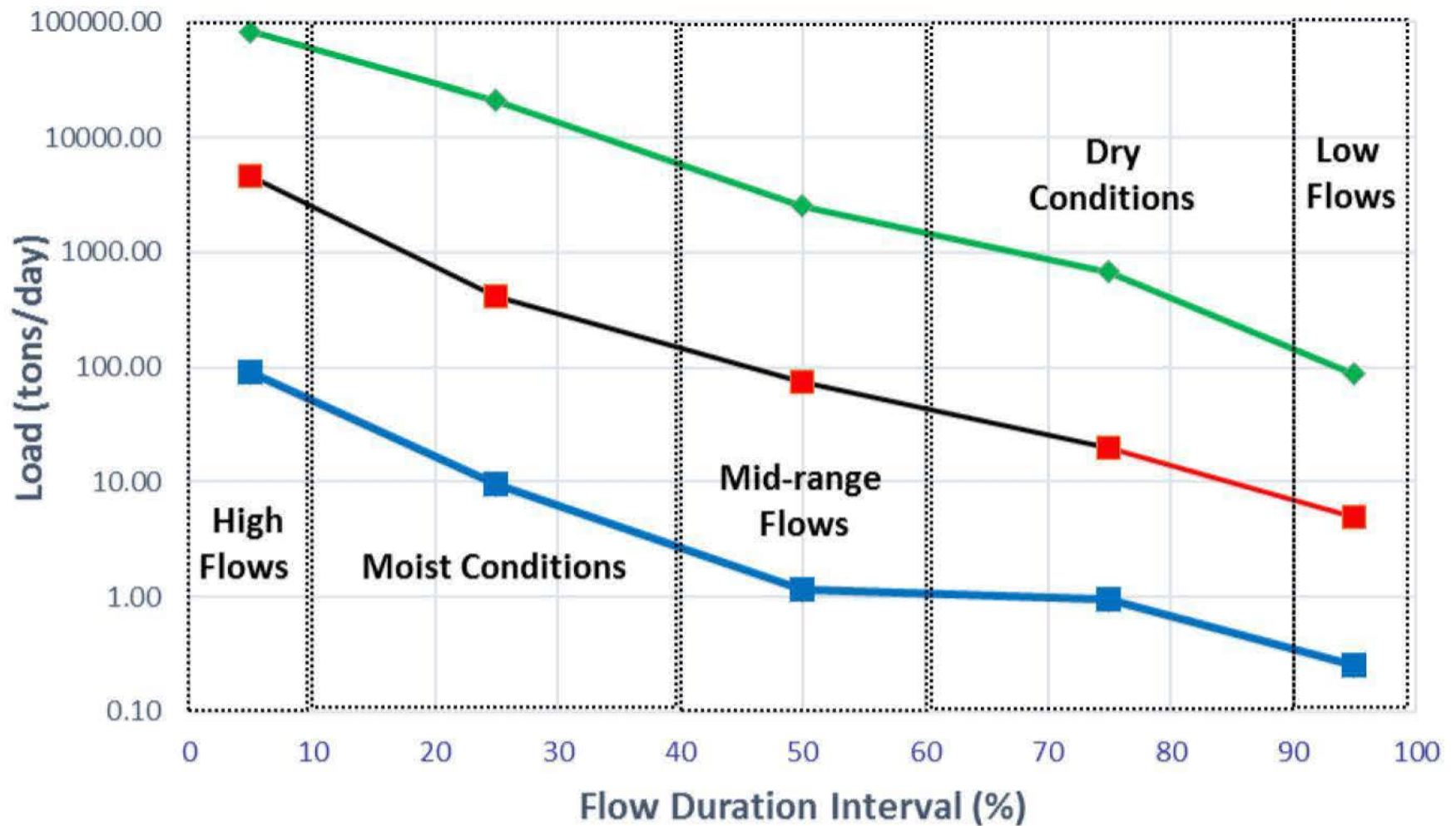


But still more to do...





**Cuyahoga River  
TSS Load Curve  
USGS Gage 04208000**







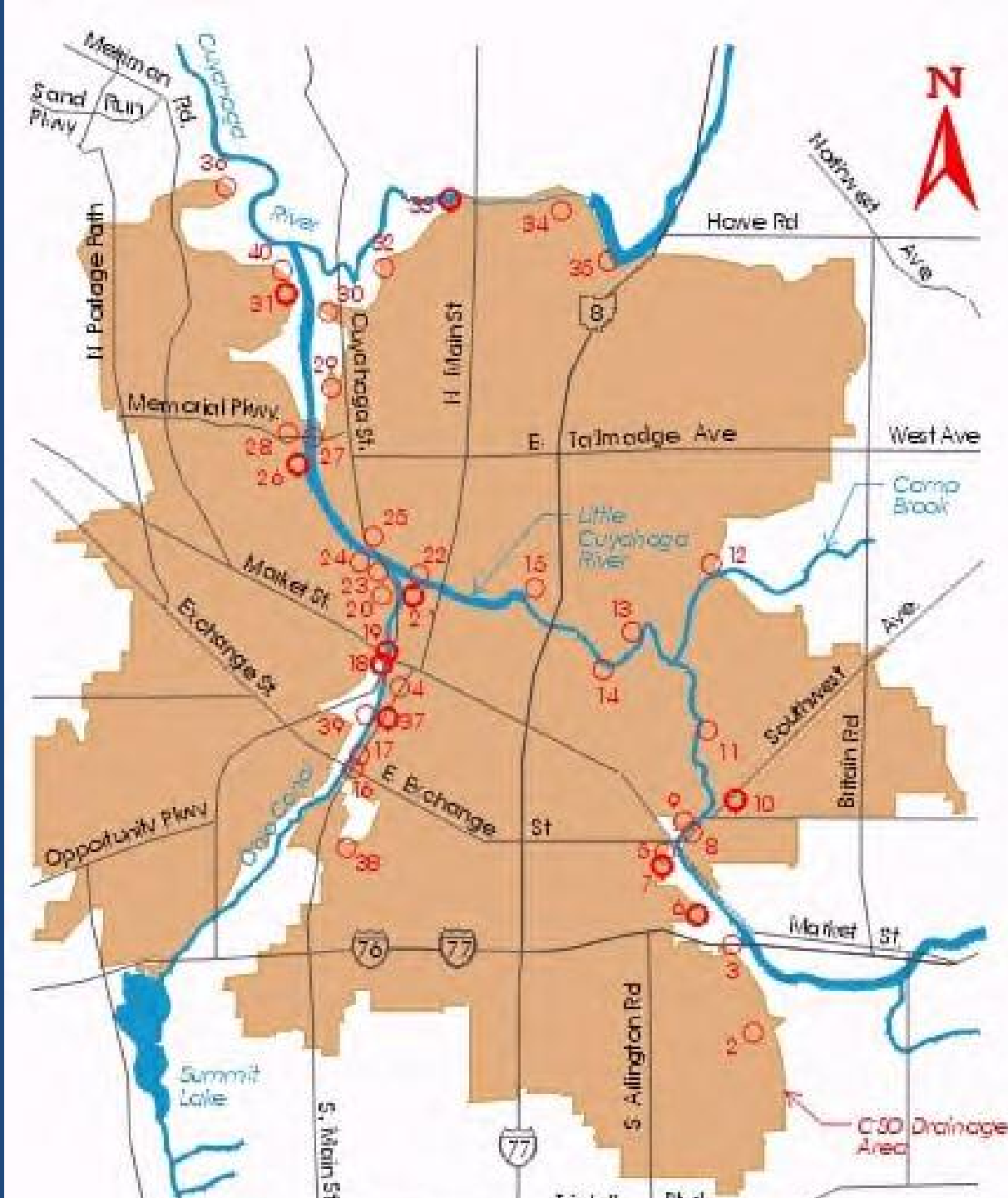
**Brecksville Dam**





## Gorge Dam

# Combined Sewer Overflows





# Beneficial Use Impairments

<b>BUI 1: Restrictions on Fish Consumption</b>	<b>complete</b>
<b>BUI 3: Degradation of Fish Populations</b>	<b>2025</b>
<b>BUI 4: Fish Tumors or Other Deformities</b>	<b>2021</b>
<b>BUI 6: Degradation of Benthos</b>	<b>2025</b>
<b>BUI 7: Restrictions on Dredging</b>	<b>2021</b>
<b>BUI 8: Eutrophication or Undesirable Algae</b>	<b>2019</b>
<b>BUI 10a: Beach Closings</b>	<b>2020</b>
<b>BUI 10b: Public Access &amp; Recreation Impairments</b>	<b>complete</b>
<b>BUI 11: Degradation of Aesthetics</b>	<b>complete</b>
<b>BUI 14: Loss of Fish Habitat</b>	<b>2025</b>



**Cuyahoga Area of Concern Advisory Committee**

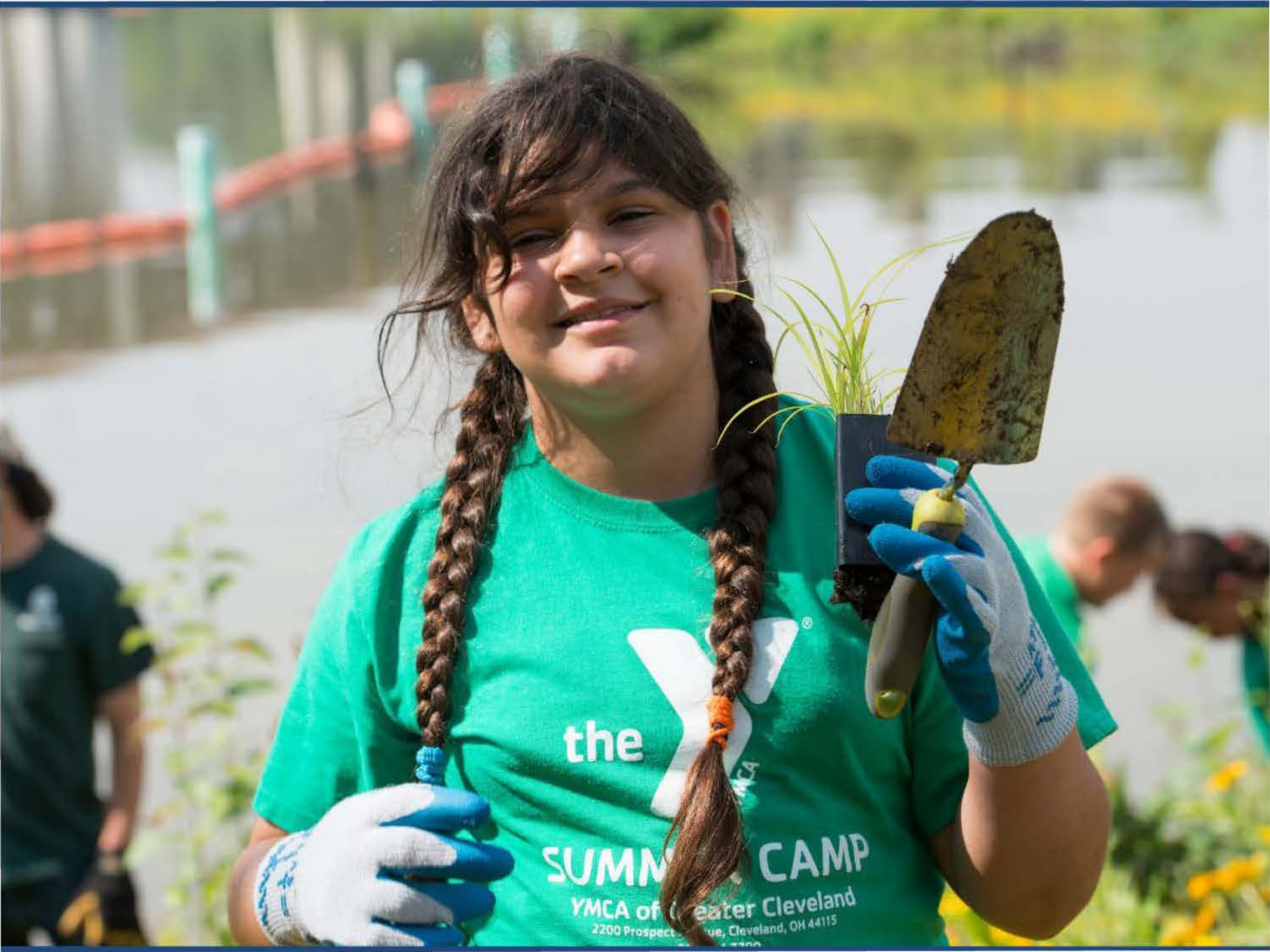


# Vision for the Valley

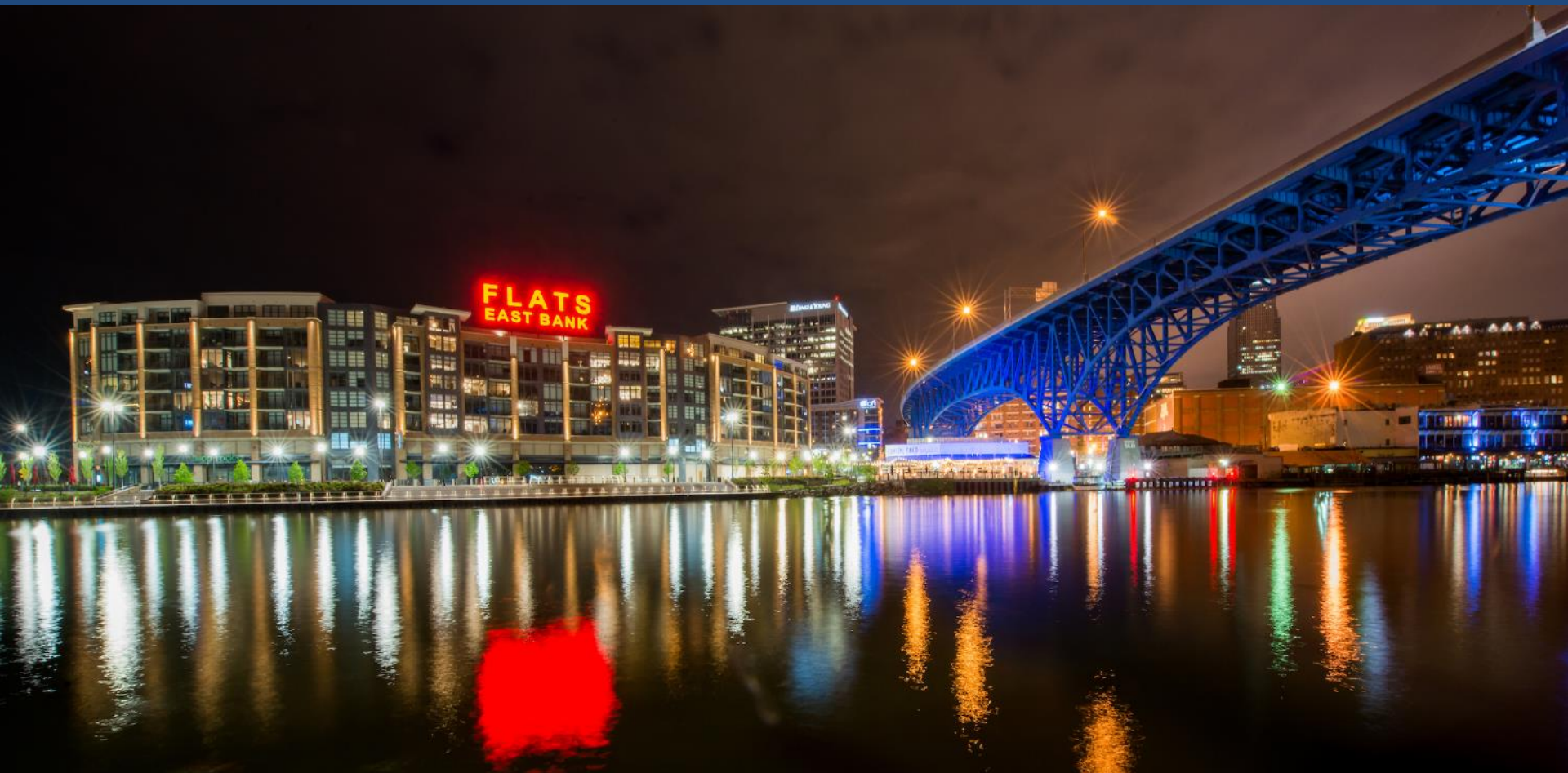
**ONE VISION.  
ONE RIVER.  
ONE CLEVELAND.**











Visit [www.cuyahogaaoc.org](http://www.cuyahogaaoc.org)

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