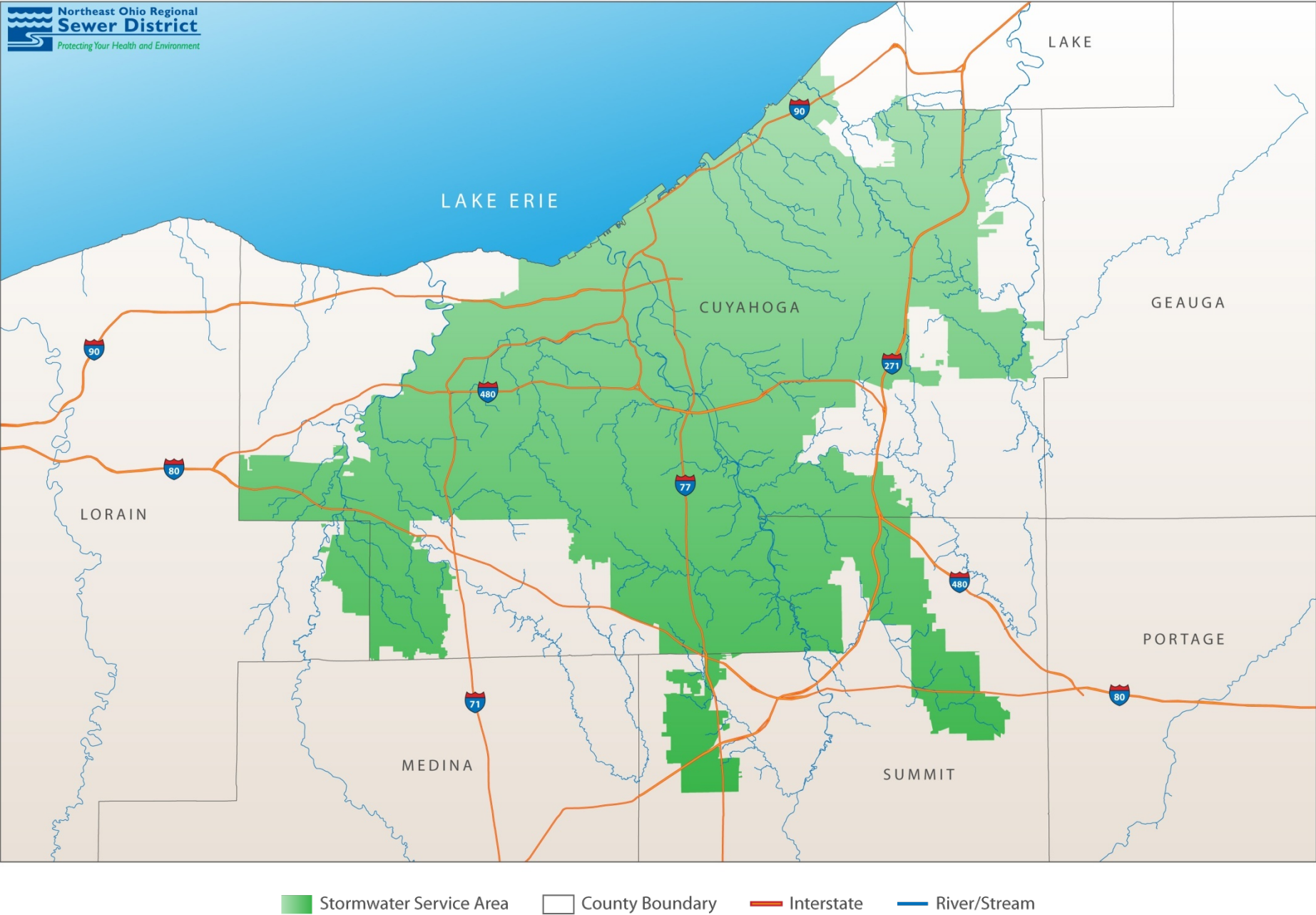


Northeast Ohio Regional Sewer District





The Sewer District: COMBINED SEWER OVERFLOW CONTROL

Project Clean Lake



Your Sewer District Keeping our Great Lake great.

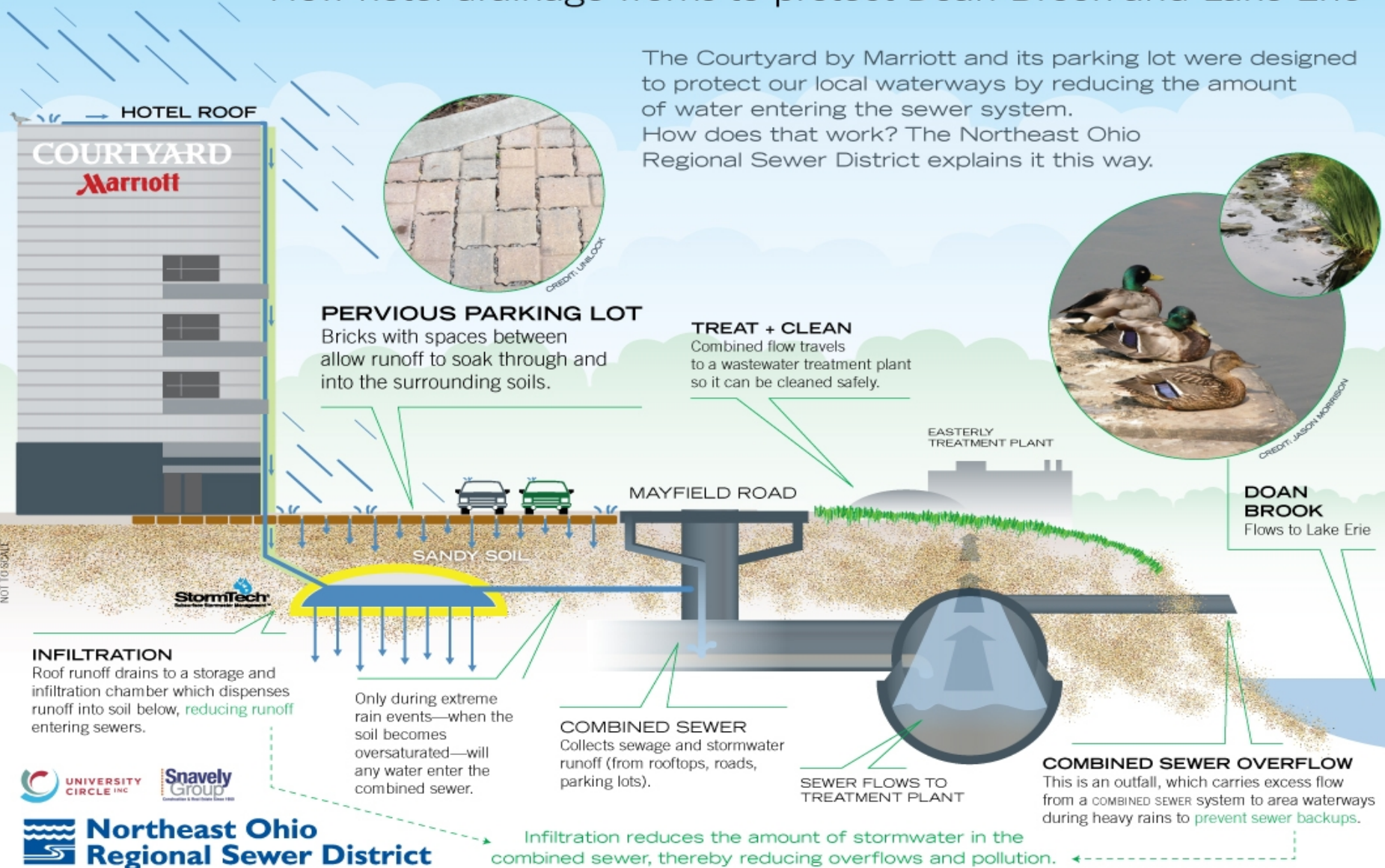


Park



Keeping our Great Lake great.

How hotel drainage works to protect Doan Brook and Lake Erie



RECLAIM

drainage patterns: collect, cleanse, and convey

-  Kingsbury Run Watershed Boundary
-  Historical Streams
-  Historical Kingsbury Run



Lake Erie

Doan Brook

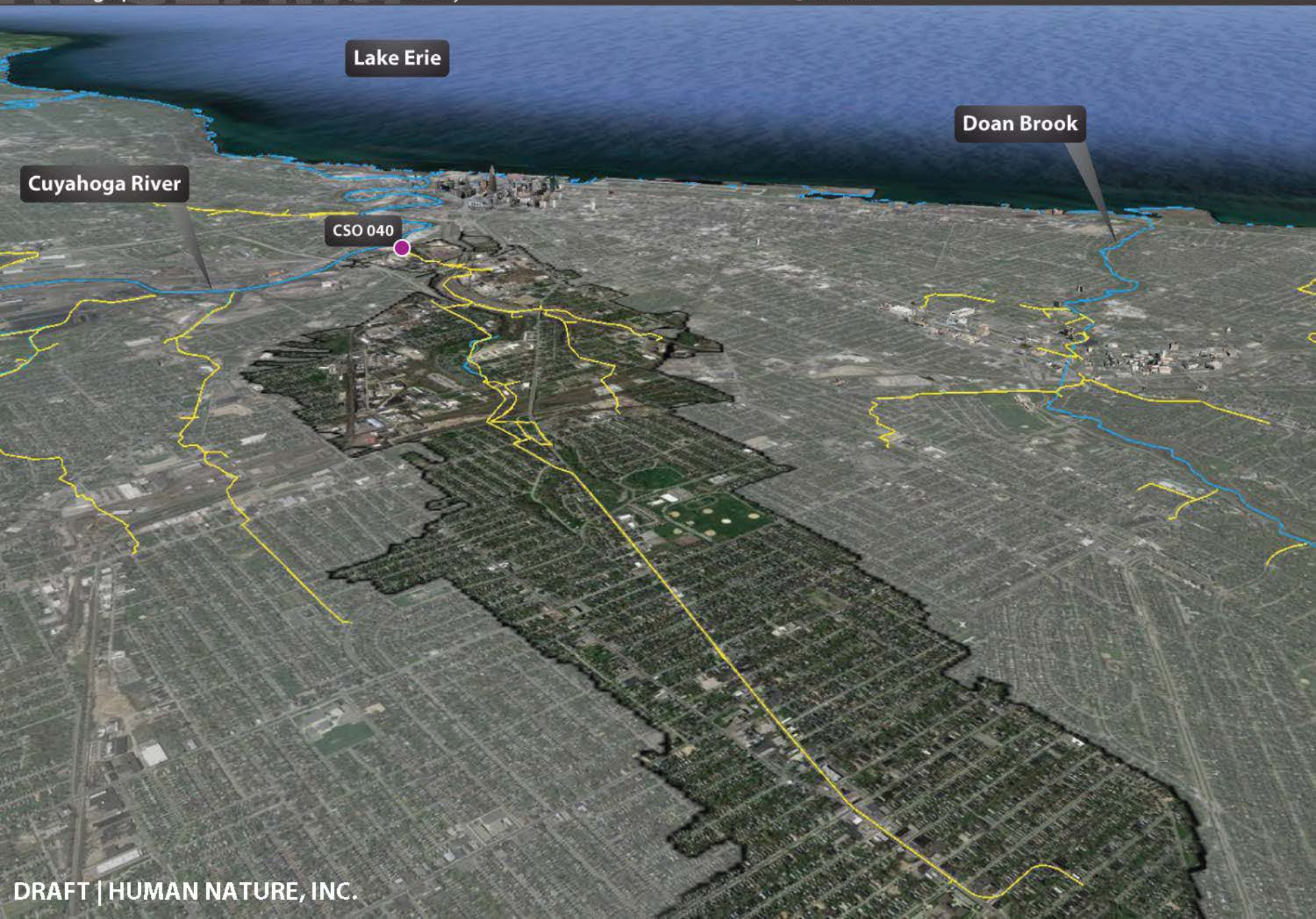
Giddings Brook

Cuyahoga River

Kingsbury Run

Burke Brook

Morgana Run



Lake Erie

Doan Brook

Cuyahoga River

CSO 040

RECLAIM

drainage patterns: collect, cleanse, and convey

- Culverted Streams
- Existing Streams
- Park adjacent to conveyance
- Project Drainage Area
- Stormwater Control Feature
- Landbank parcels adjacent to conveyance
- Proposed Separate Storm

Lake Erie





The Sewer District: REGIONAL STORMWATER MANAGEMENT

Flooding, erosion, and water quality

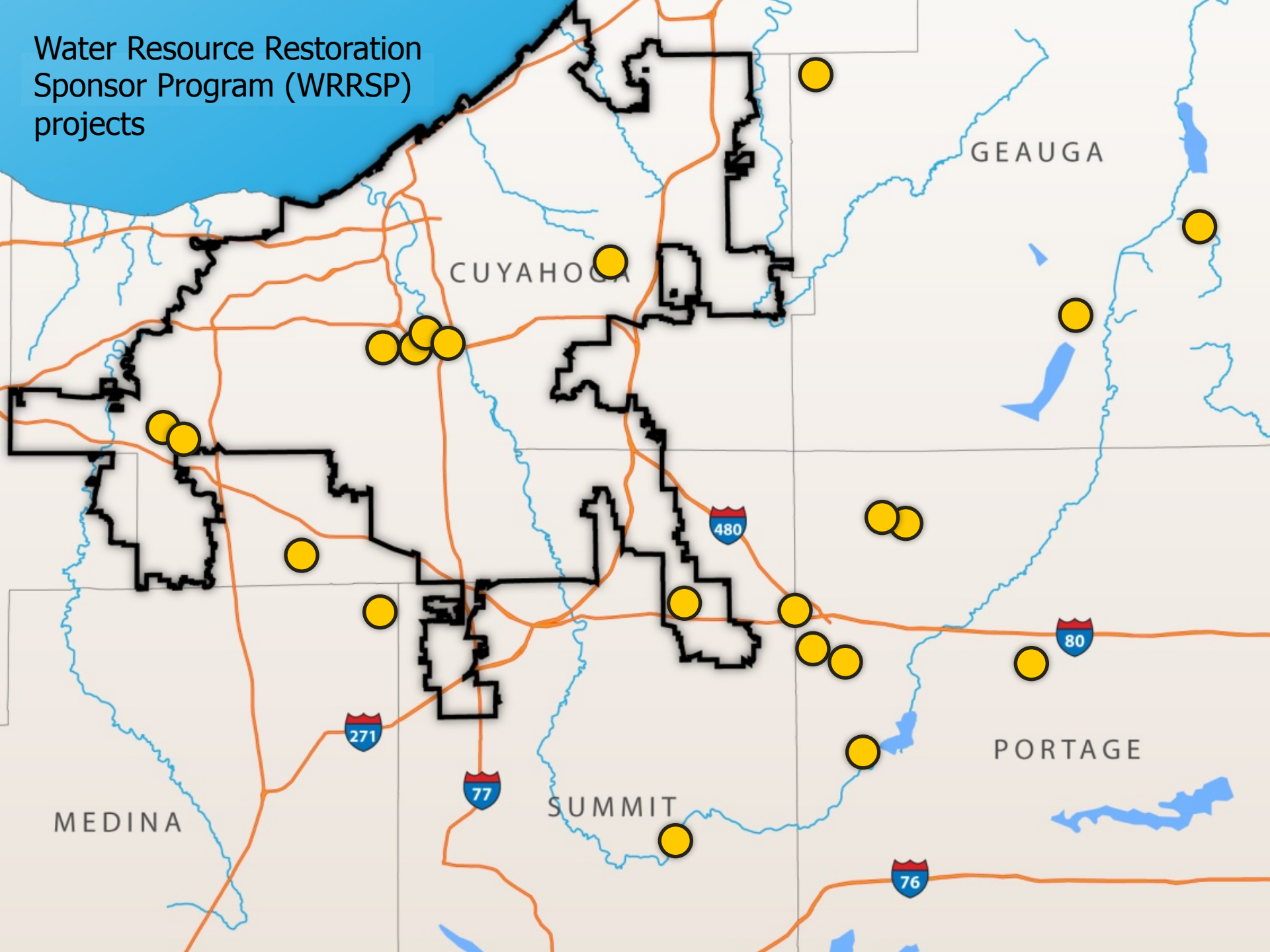


Your Sewer District Keeping our Great Lake great.

Stream Restoration: Pre-restoration flooding
West Creek Confluence



Water Resource Restoration
Sponsor Program (WRRSP)
projects





WRRSP by the numbers

\$31 million

facilitated since 2005



WRRSP by the numbers

2,500 acres

of preserved property, including 600 acres of
high quality wetland



WRRSP by the numbers

7 dams

removed



WRRSP by the numbers

12 miles

of protected streams



WRRSP by the numbers

21,000 feet

of restored streams

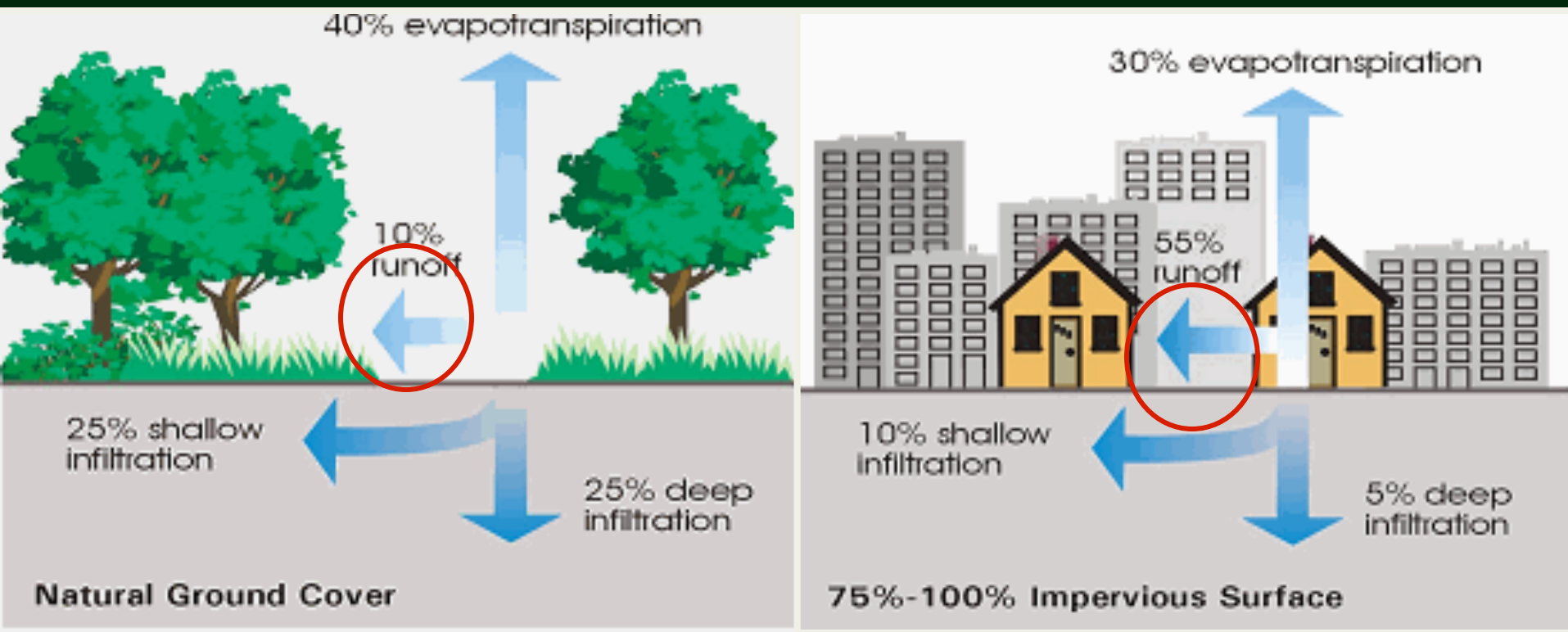


Stormwater Fees & Credits

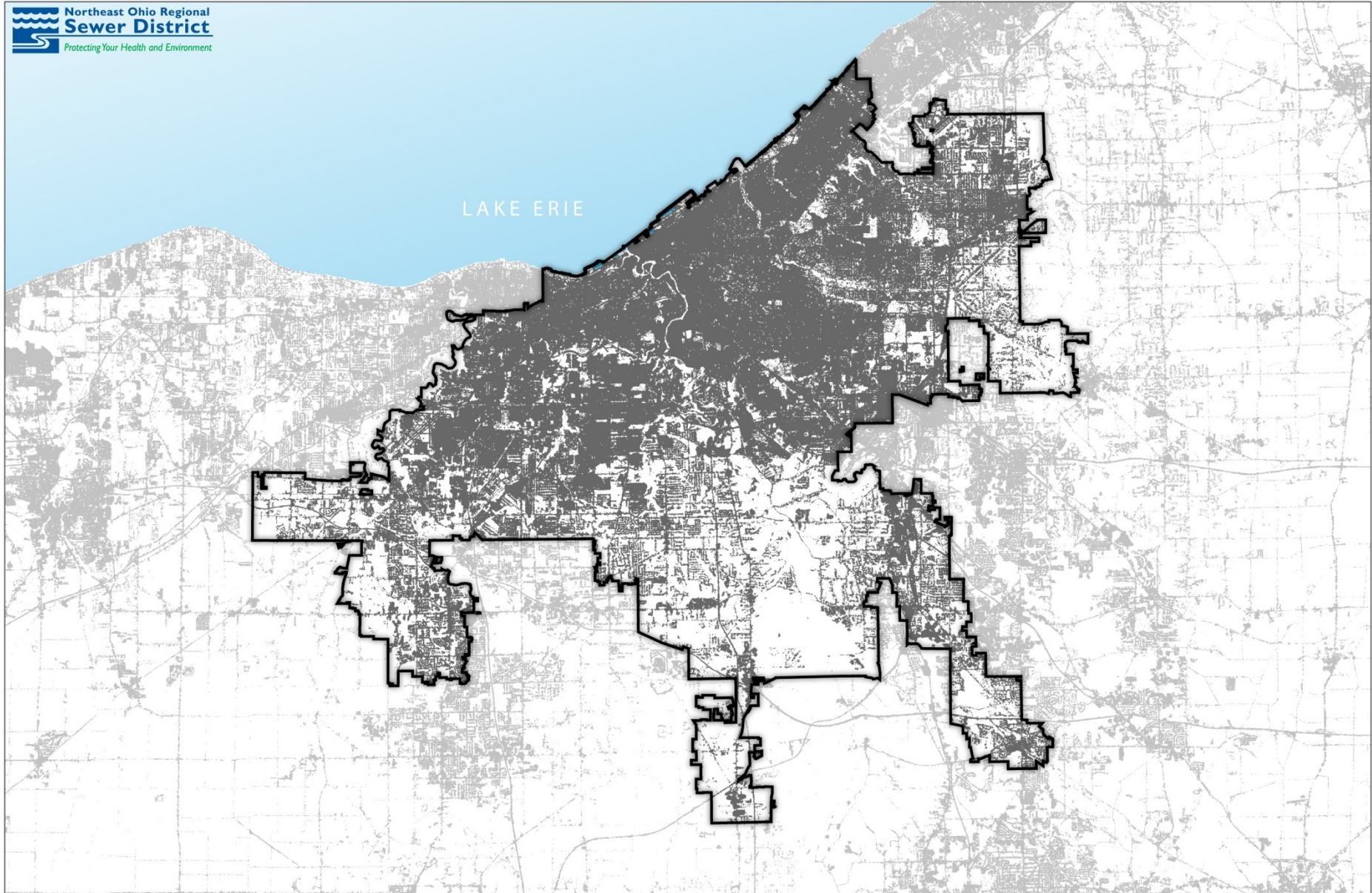
- **Estimated revenue of \$38M/year from new impervious surface fee**
 - Inspection and Maintenance
 - Construction
 - Partner support
- **Stormwater Fee Credits recognize on-site Stormwater Control Measures**
 - Quantity Credit
 - Quality Credit
 - Education Credit
 - Individual Residential Credit

Impervious Surface = Stormwater Runoff

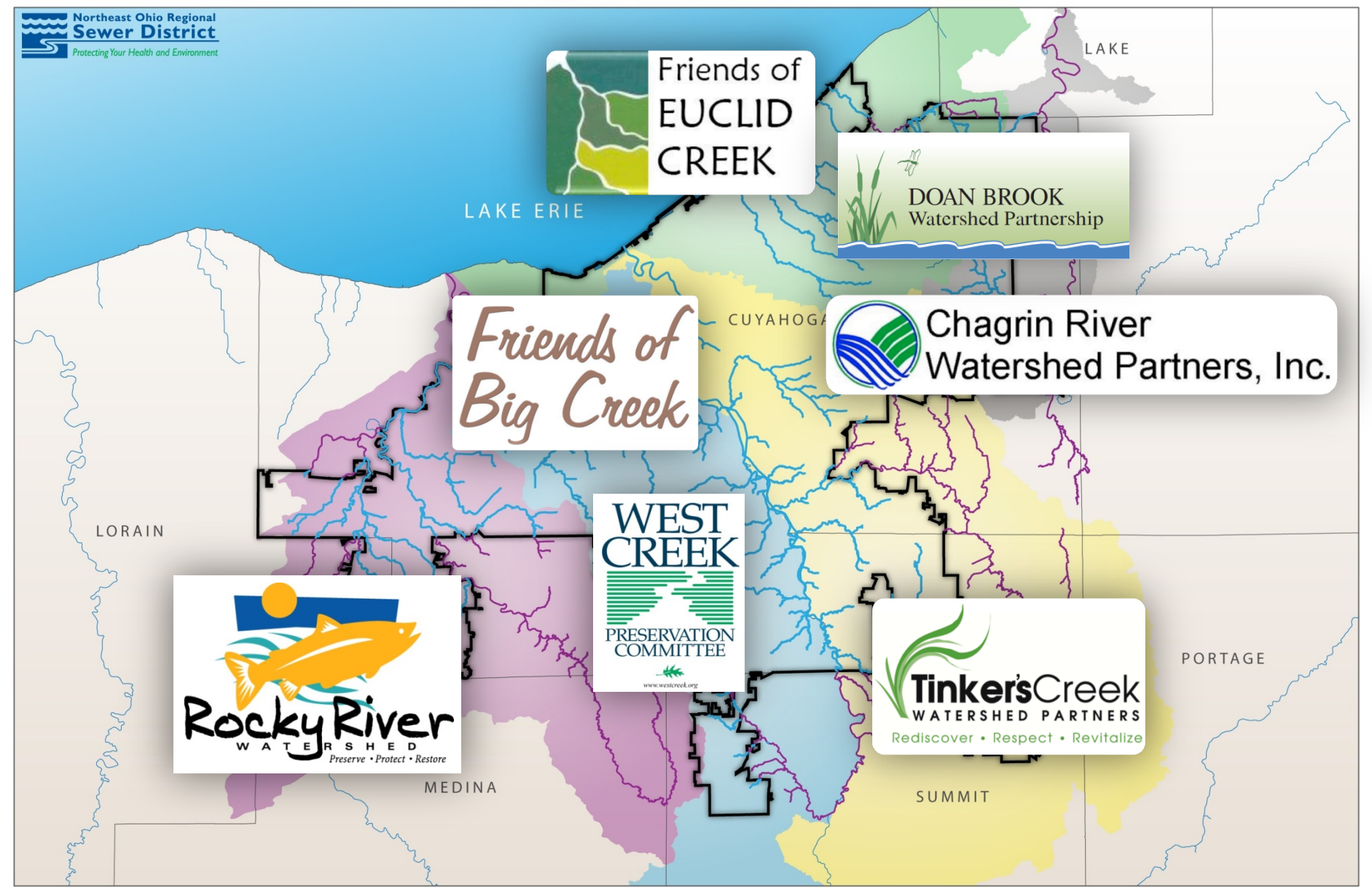
Stormwater Runoff = Flooding & Erosion



Impervious Surfaces



\$680,000 in operating support since '09



Northeast Ohio Considerations....

- **Pull the levers available:**
 - CSO: Promote stormwater solutions to stormwater problems
 - MS4/Phase II/General Construction Permit: Low impact development options are the most cost-effective
- **Solve problems the general public cares about:** Flooding & erosion impact more folks than water quality



Northeast Ohio Considerations....

- **Focus on land protection:** Headwater protection is the most cost-effective stormwater management
- **Look at building and zoning codes** – *you get what you zone for.....*
 - Riparian & wetland setback zoning
 - Comprehensive stormwater management
 - Subdivision codes
 - Parking requirements
 - Floodplain management codes

