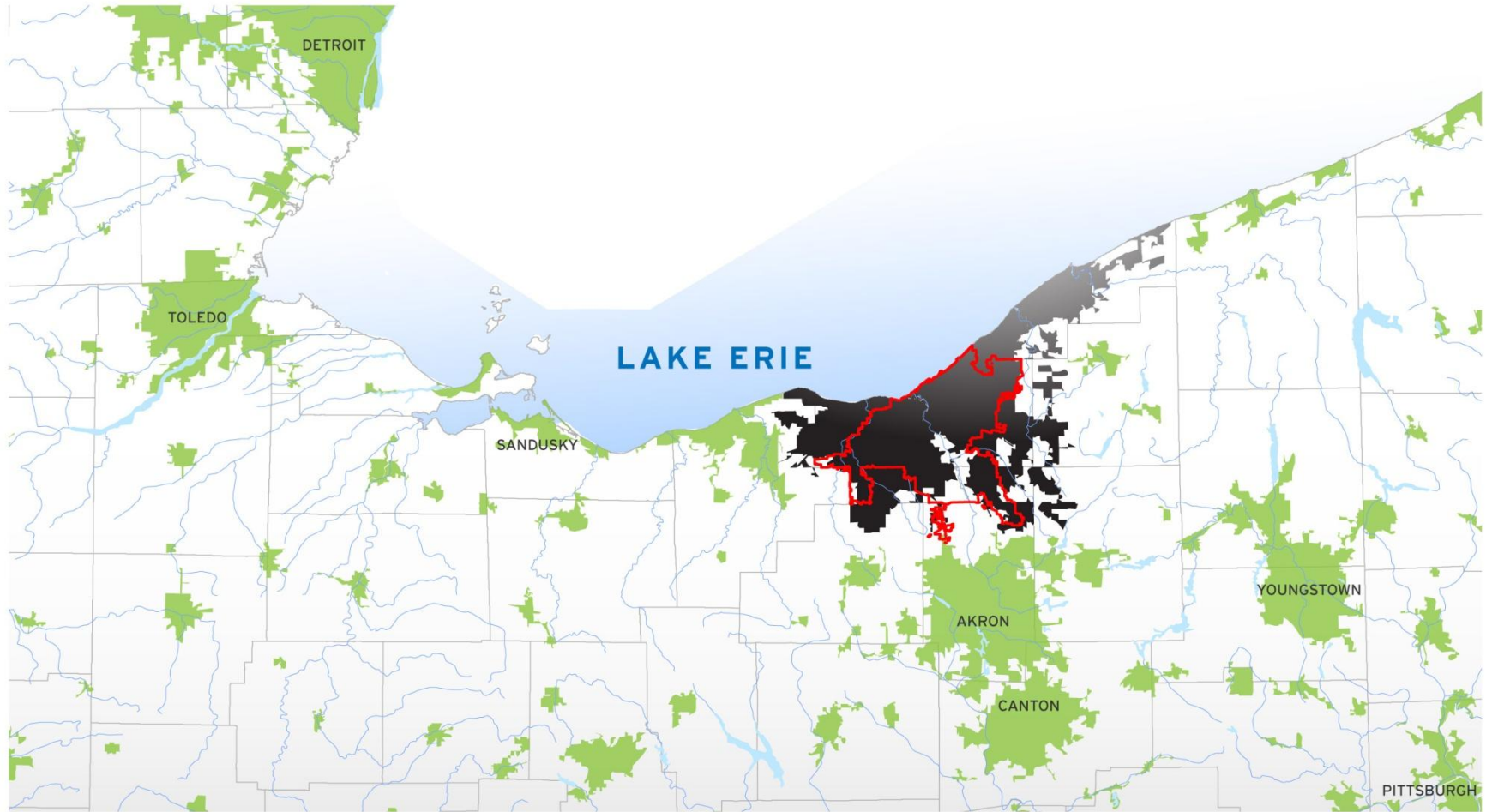


Northeast Ohio Regional Overview



- District Service Area
- Urban Area
- County Boundary
- Cleveland Metropolitan Area

NORTHEAST OHIO REGIONAL SEWER DISTRICT



Your Sewer District Keeping our Great Lake great.



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Who We Are...

- Created in 1972 by Court Order
- Political subdivision of Ohio with separate Code of Regulations
- Governed by seven Trustees
- 62 member communities
- 1 million customers
- 90+ billion gallons wastewater treated each year



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...And What We Do

- Wastewater Treatment Plants
- Interceptor Sewer O&M
- Combined Sewer Overflow Control
 - Green Infrastructure
 - Gray Infrastructure
- Environmental monitoring
- Beach maintenance
- Wet weather programs



Sept 26, 2013 – Injunction

**8th District Court of Appeals
Cuyahoga County**

**Implement Title V? NO!
Collect Stormwater Fee?
NO!**

REG

**Addressing flooding, erosion,
and water quality**



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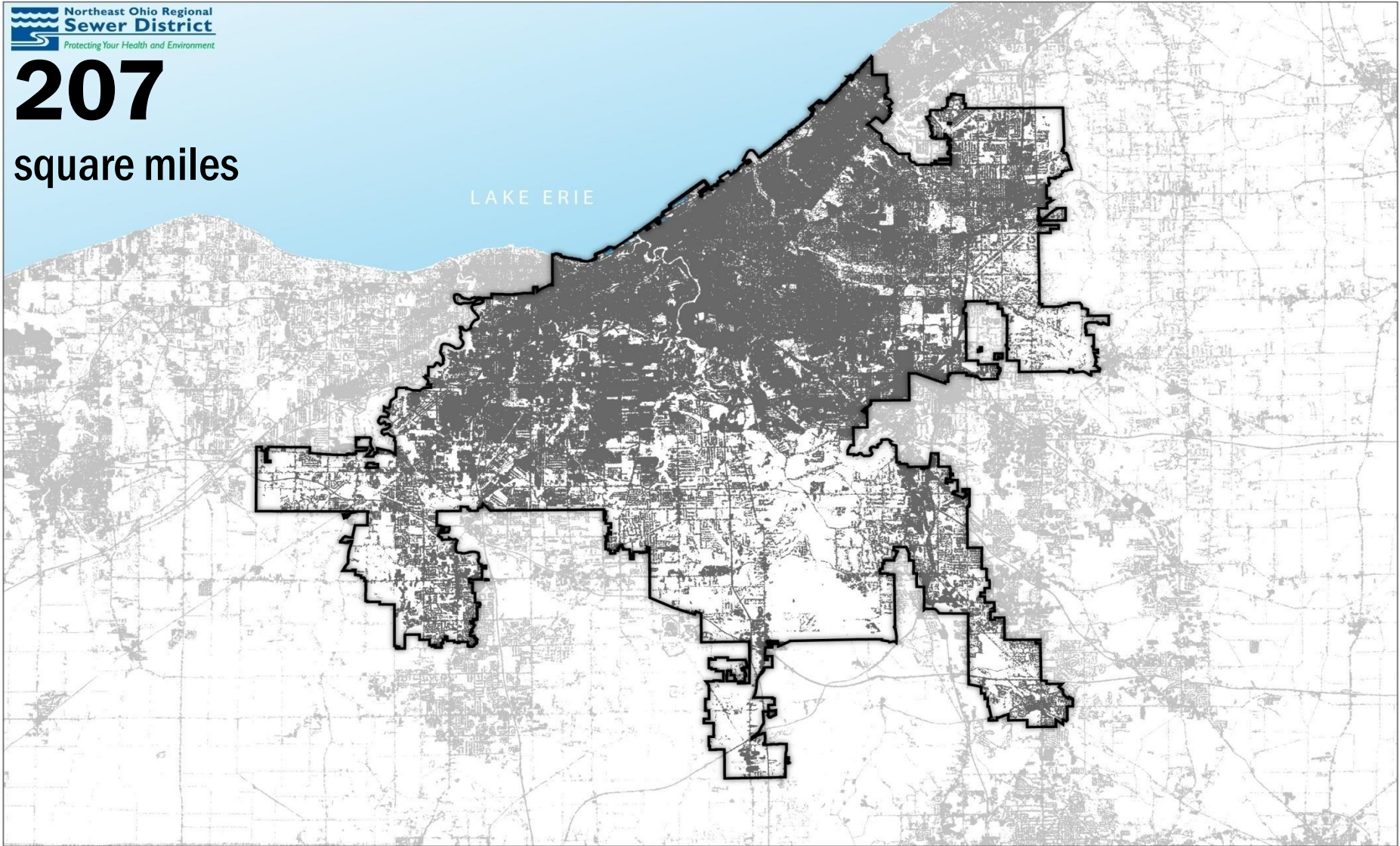


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Impervious Surfaces

Northeast Ohio Regional
Sewer District
Protecting Your Health and Environment

207
square miles



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**Impervious Surfaces = Stormwater Runoff
Stormwater Runoff = Flooding and erosion**



**Flooding in Independence, Ohio along
West Creek**



**Streambank erosion
along Stickney Creek**

Components of Regional Program....



Inspect &
Maintain



SW
Master
Plans



Construct
Projects



Encourage
Good
Practices



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How a Stormwater Fee was determined:

- Impervious Area (IA)
 - *Billing Unit = Equivalent Residential Unit (ERU)*
- Property Classification
 - *SFR – Single Family Residential*
 - *NSFR – Non-Single Family Residential*

**2013 Base Rate =
\$5.05 per ERU
1 ERU = 3,000 sq ft**



SFR Property



NSFR Property

Stormwater Fee SFR & NSFR Properties

- SFR - Tiers

- Tier 1 (Small) < 2,000 ft²
 - Fee = **\$9.09** per quarter
- Tier 2 (Medium)
 - Fee = **\$15.15** per quarter
- Tier 3 (Large) > 4,000 ft²
 - Fee = **\$27.27** per quarter



- NSFR – Measure actual impervious area, round to nearest ERU



- **Parking Lot Property – 11 Total Parcels (Aggregated)**
- **Total Impervious Area ~ 45,000 ft²**
- **ERUs = 45,000 ft² / 3,000 ft² = 15 ERUs**
- **Fee = \$227.25/quarter**



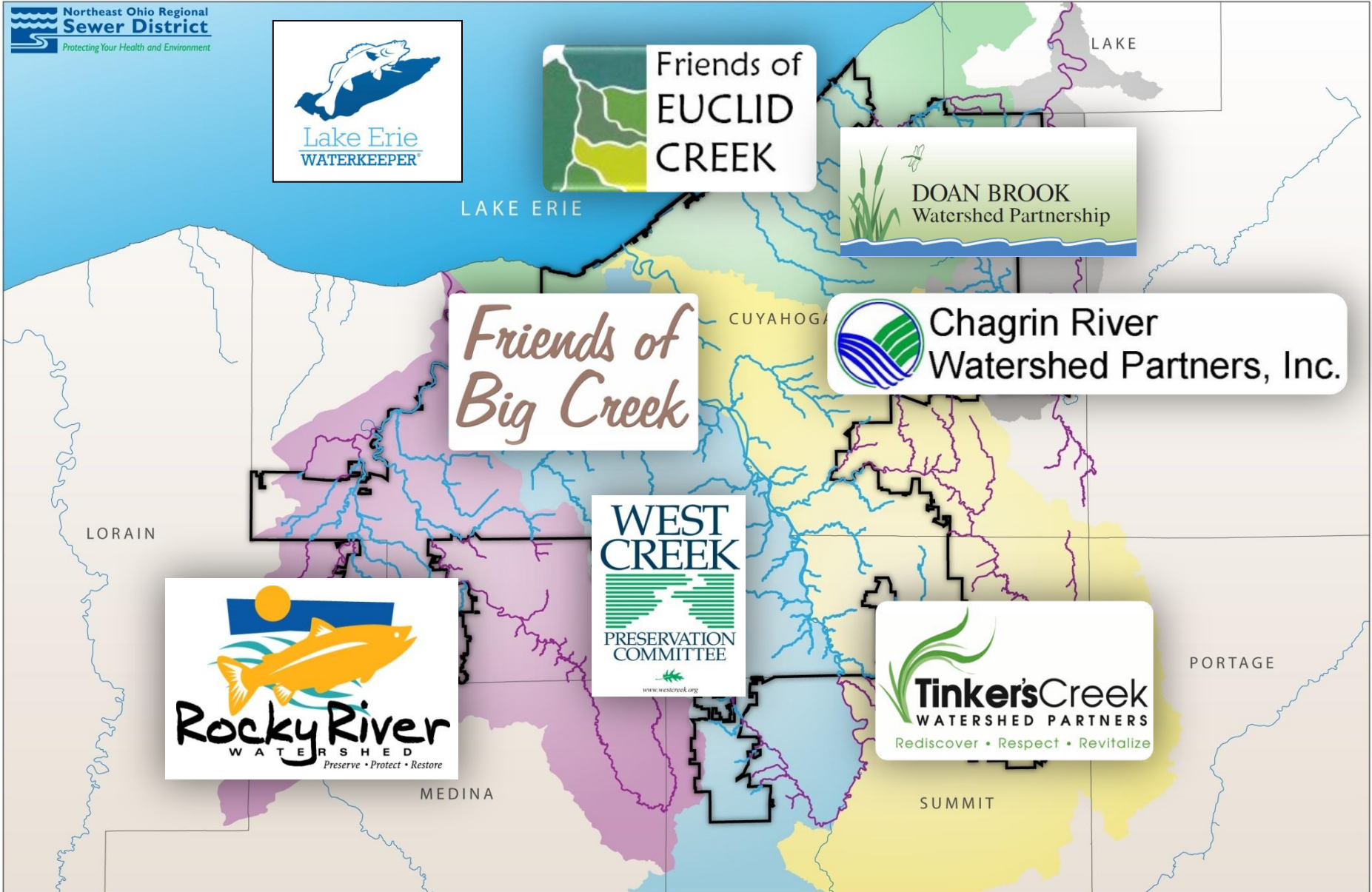
Stormwater Fee Credits

- Individual Residential Property Credit: 25%
- Stormwater Quality Credit: Up to 25%
- Stormwater Quantity Credit: Up to 75%
- Education Credit: 25%

**Stormwater credits required
maintenance of control structures**



\$930,000 in operating support since '09





The Sewer District: COMBINED SEWER OVERFLOW CONTROL

Project Clean Lake

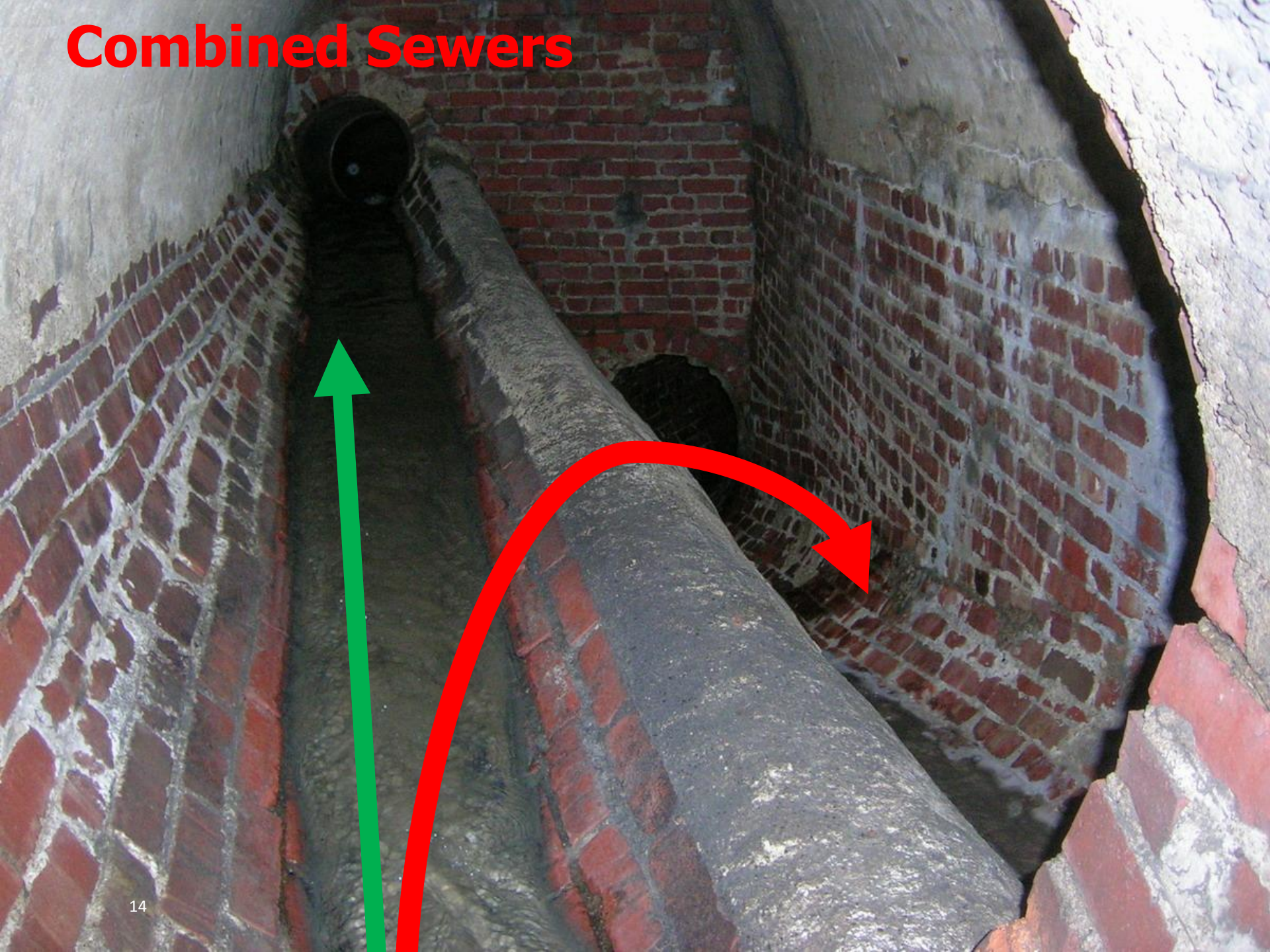


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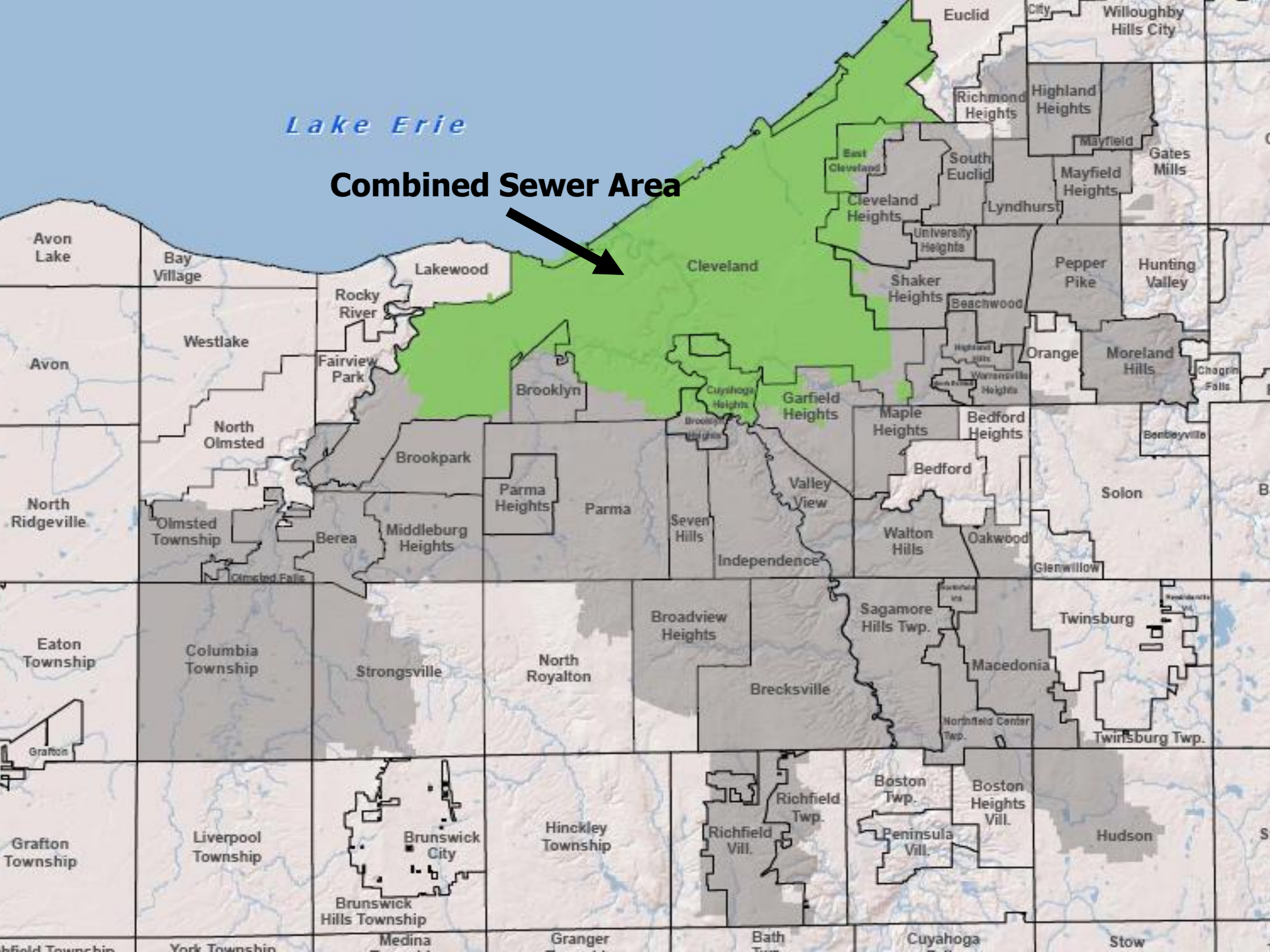
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Combined Sewers



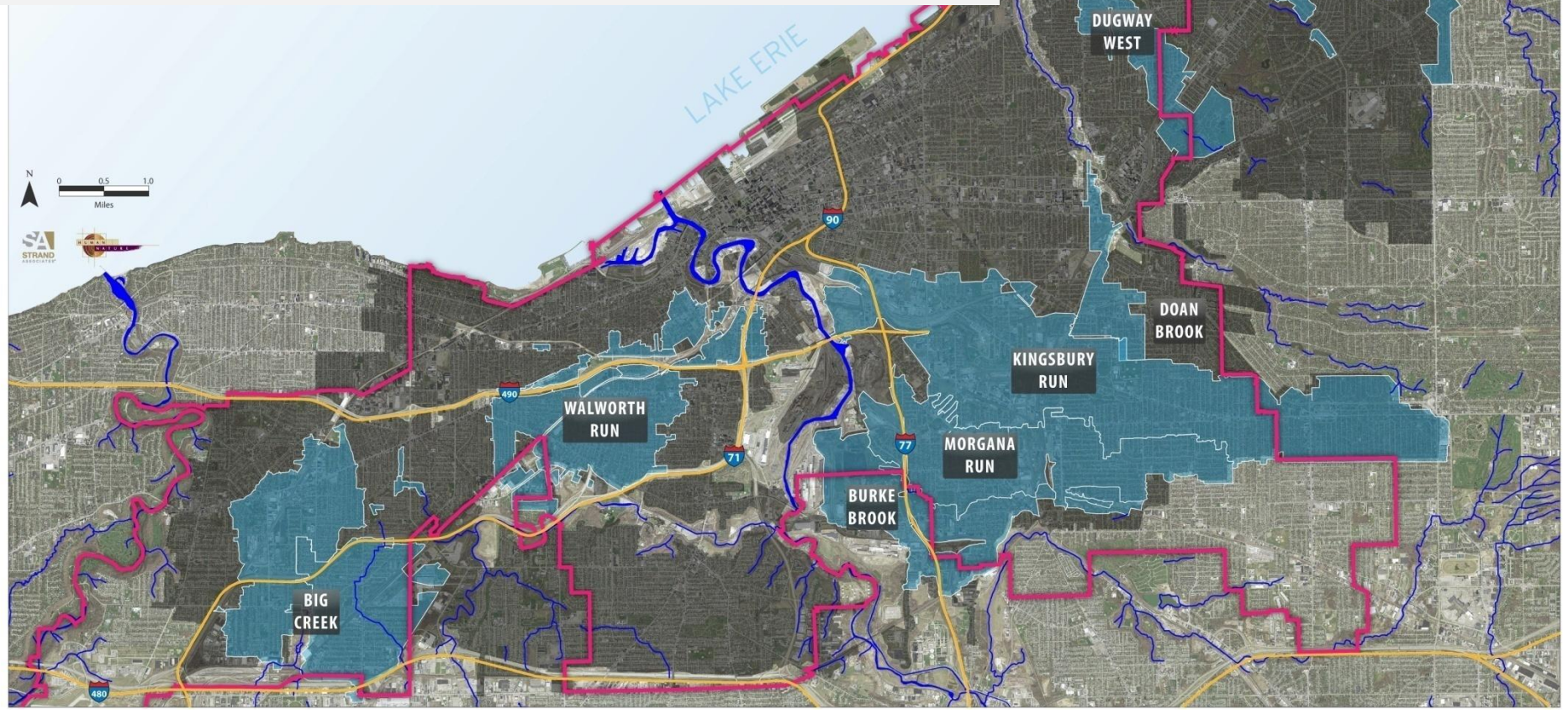
Lake Erie

Combined Sewer Area



NEORSD GREEN INFRASTRUCTURE

Looking across combined sewer area for opportunities to manage stormwater before it enters combined system



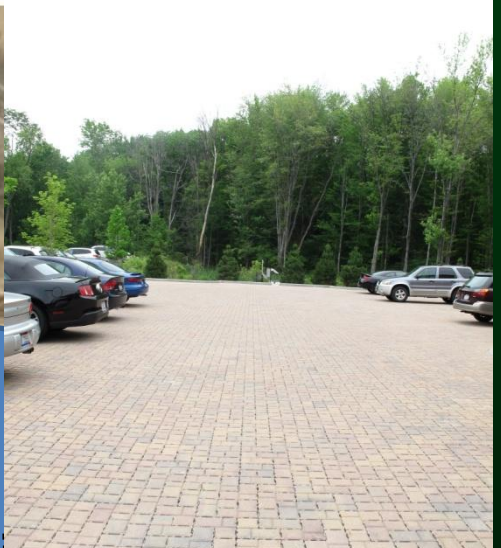
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No stormwater runoff from this site through the 100-yr storm



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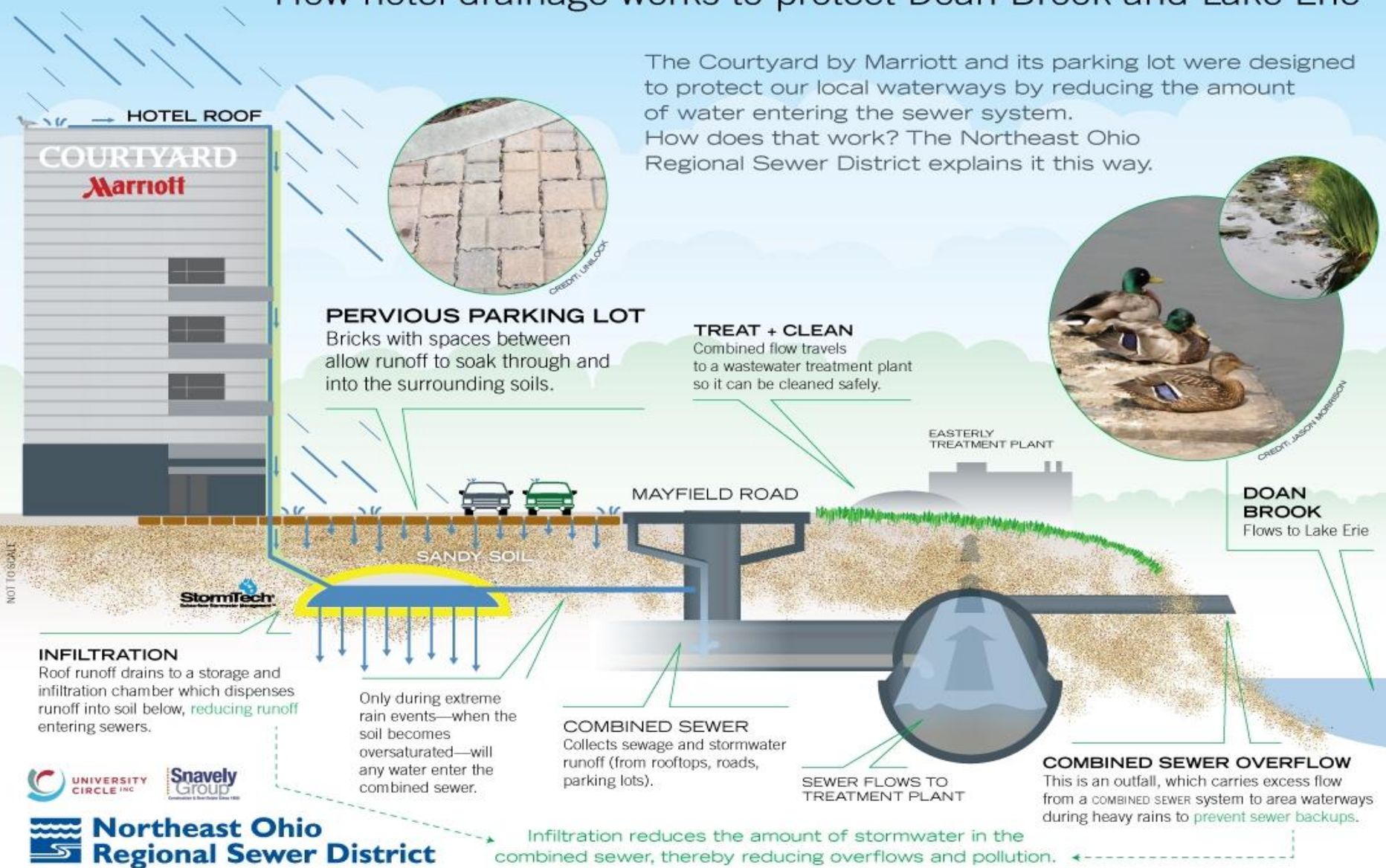
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Keeping our Great Lake great.

How hotel drainage works to protect Doan Brook and Lake Erie

The Courtyard by Marriott and its parking lot were designed to protect our local waterways by reducing the amount of water entering the sewer system.

How does that work? The Northeast Ohio Regional Sewer District explains it this way.



PERVIOUS PARKING LOT

Bricks with spaces between allow runoff to soak through and into the surrounding soils.

TREAT + CLEAN

Combined flow travels to a wastewater treatment plant so it can be cleaned safely.

EASTERLY TREATMENT PLANT

MAYFIELD ROAD

DOAN BROOK

Flows to Lake Erie

SANDY SOIL

INFILTRATION

Roof runoff drains to a storage and infiltration chamber which dispenses runoff into soil below, reducing runoff entering sewers.

Only during extreme rain events—when the soil becomes oversaturated—will any water enter the combined sewer.

COMBINED SEWER

Collects sewage and stormwater runoff (from rooftops, roads, parking lots).

SEWER FLOWS TO TREATMENT PLANT

COMBINED SEWER OVERFLOW

This is an outfall, which carries excess flow from a combined sewer system to area waterways during heavy rains to prevent sewer backups.

Infiltration reduces the amount of stormwater in the combined sewer, thereby reducing overflows and pollution.



For more information on Northeast Ohio Regional Sewer District

- **Kyle Dreyfuss-Wells**
 - Manager of Watershed Programs
 - 216.881.6600 x6414 | dreyfuss-wellsk@neorsd.org
- www.neorsd.org



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