

NEORSD 2021:

Protecting Public Health & Water Quality





At a glance

- 355 sq. mile service area
- Sanitary and regional stormwater services
- Serving Cleveland and 61 communities
- Water quality monitoring
- Lake Erie beach monitoring, maintenance



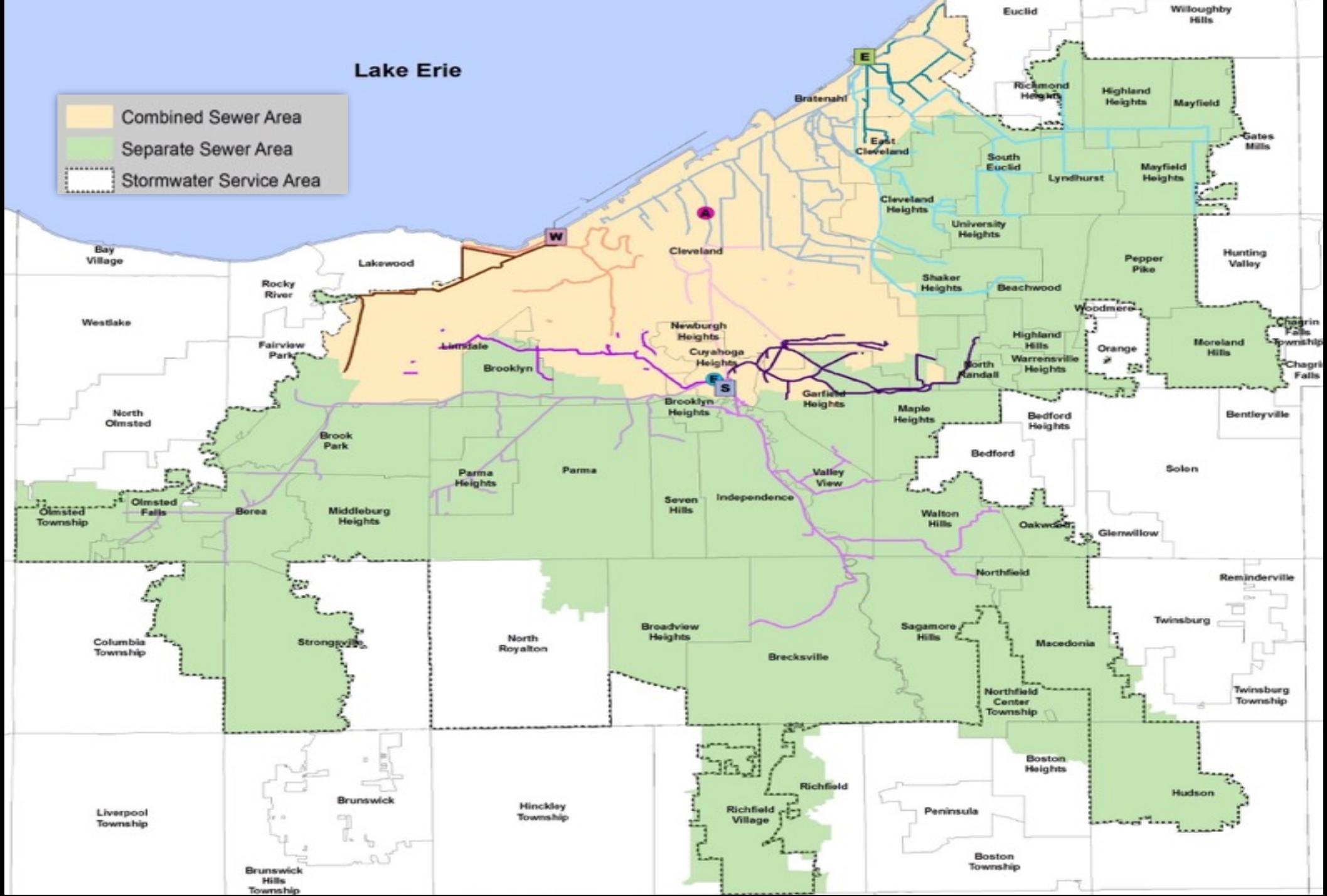
**Northeast Ohio
Regional Sewer District**



Lake Erie

Legend:

- Combined Sewer Area
- Separate Sewer Area
- Stormwater Service Area



Programs and progress



- 3 plants
- 90 billion gal/yr
- Certified lab
- \$3 billion, 25 years
- CSO control
- Sewer fees
- \$43 million annually
- Flooding & erosion
- Impervious surface fee

Project Clean Lake: Reducing CSO Activations



**0 to 80 Overflows
82% Capture**

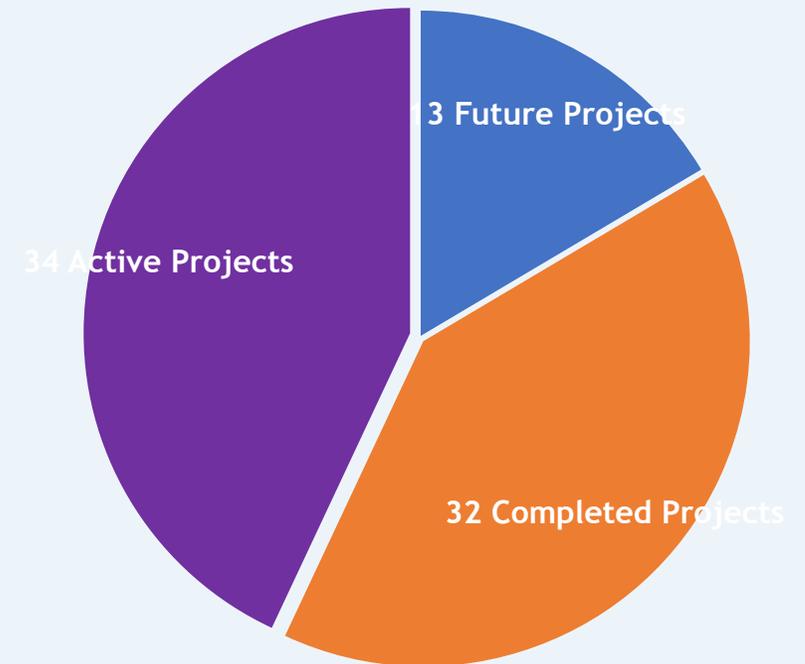


**0 to 4 Overflows
98% Capture**



Project Clean Lake: Progress

- **66** Projects Completed or Active
- **\$1.51 B** spent or awarded to date
 - **\$1.21 B** (2009\$)
- **\$429 M** (2009\$) in realized Value Engineering savings
- \approx **1 BG** in annual CSO reduction to date and \approx **1.5 BG** within next 3 years





Consent Decree Modification: Progress

Better solutions for collection system, Southerly, and Westerly
\$91 M savings, improved plant operations and water quality
Filed with US District Court in early 2021.

Response to comments underway.

Discussions continue in Easterly district

Project Clean Lake: Recent Accomplishments

- 2019: Activated the Dugway Storage Tunnel (376 MG/year CSO control)
- 2019: Completed Green Infrastructure projects
- 2020: Commenced Westerly Tunnel Dewatering Pump Station



Dugway Storage Tunnel



Westerly Tunnel Dewatering Pump Station

Project Clean Lake: Looking ahead



- 2021: Activation of Doan Valley Tunnel (348 MG/yr CSO control)
- 2021: Commence construction of Shoreline Tunnel System (370 MG/yr CSO control)
- 2021: Commence design of Southerly Tunnel System (est. 750 MG/year CSO control)

Regional Stormwater Management Program



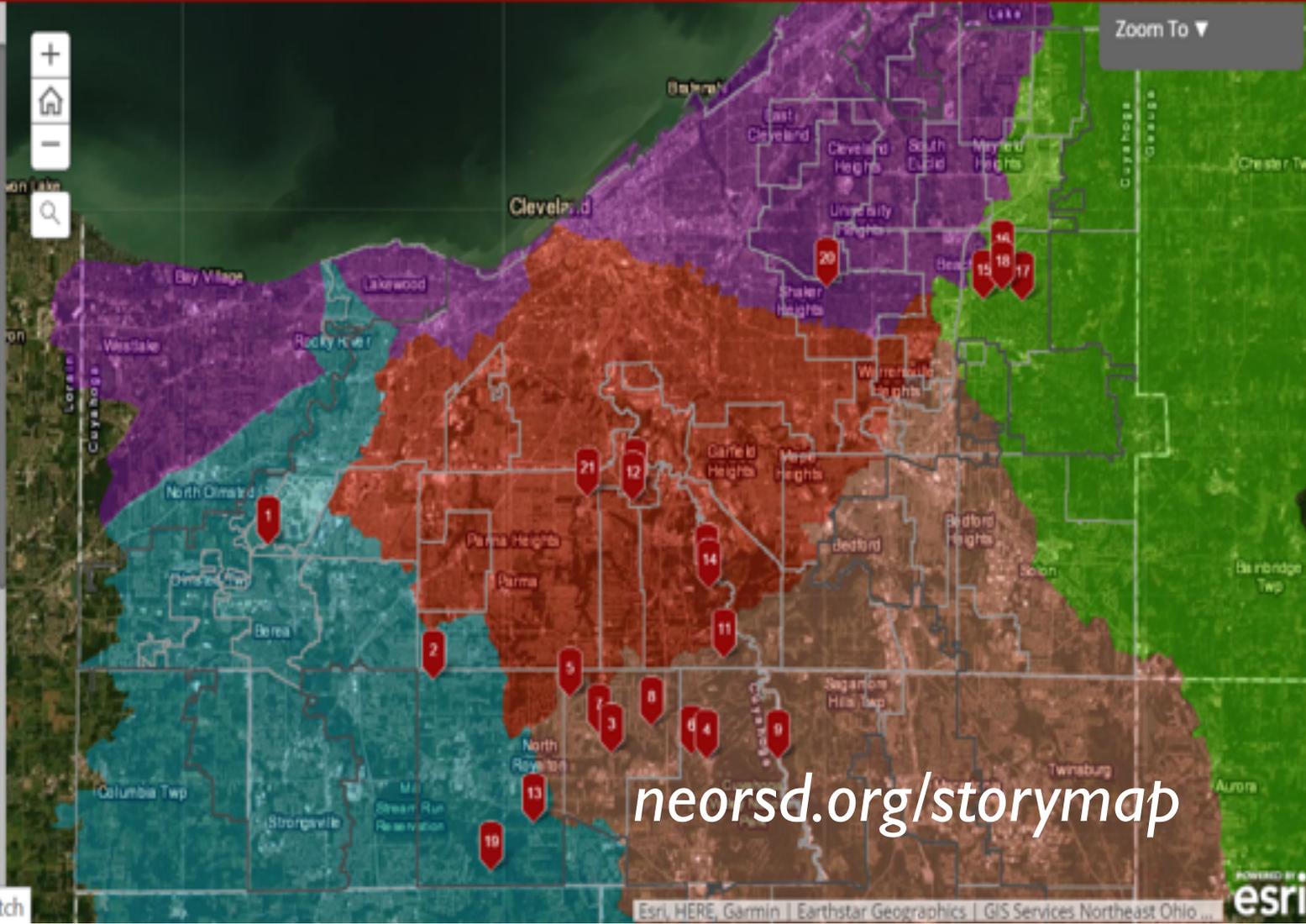
NEORSD Stormwater Design & Construction Program



Navigate using the tabs below and by clicking the images to view more details on our completed, current design, and current construction stormwater projects. Zoom In to view satellite imagery and Regional Stormwater System features (e.g. streams, culverts, conduits, etc). Use the "Zoom To" drop down menu to locate your watershed.

- All Projects
- Design**
- Construction
- Complete

 <p>1 Abram Creek Trash Rack Repair</p>	 <p>2 Baldwin Creek Stabilization Near Abb...</p>	 <p>3 Chippewa Creek Bank Erosion Near HOA...</p>	 <p>4 Chippewa Creek Bank Stabilization at Route 21</p>
 <p>5 Chippewa Creek Flood Reduction Near Echo...</p>	 <p>6 Chippewa Creek Stabilization at...</p>	 <p>7 Chippewa Creek Stream Stabilization Near...</p>	 <p>8 Chippewa Creek Stream Stabilization Near...</p>
 <p>9 Cuyahoga River Bank Stabilization Brecksville</p>	 <p>10 Cuyahoga River Bank Stabilization at Railway...</p>	 <p>11 Cuyahoga River Tributary Bank...</p>	 <p>12 Debris Racks and Access Road Improvements in...</p>
 <p>13</p>	 <p>14</p>	 <p>15</p>	 <p>16</p>



neorsd.org/storymap

Esri, HERE, Garmin | Earthstar Geographics | GIS Services Northeast Ohio... 

- 1,000 feet of stream stabilization with 100-year floodplain connectivity
- 66 trees and 6,000+ live stakes
- \$2.45 million Total Project Cost



After

Green Infrastructure Grants Program



Green Infrastructure Grant For the Combined Sewer Area

Funding Round	Award Recommendations Total	Runoff Reduction gallons/year Total
2014 GREEN INFRASTRUCTURE GRANT PROGRAM	\$1,746,274	7,138,890
2016 GREEN INFRASTRUCTURE GRANT PROGRAM	\$1,974,747	9,658,777
2018 GREEN INFRASTRUCTURE GRANT PROGRAM	\$799,130	1,730,688
2019 GREEN INFRASTRUCTURE GRANT PROGRAM	\$1,908,361	4,906,083
2020 GREEN INFRASTRUCTURE GRANT PROGRAM	\$1,935,944	2,913,808
2021 GREEN INFRASTRUCTURE GRANT PROGRAM	\$462,997	933,711
GRAND TOTAL	\$8,827,453	27,281,957



***Treatment Train to Community Development Green Infrastructure Project - 2019 Award - \$229,274
Permeable Pavers & Bioretention - Completed***



***Morgana Bluff Nature Preserve & Learning Center Stormwater Wetland - 2018 Award - \$242,420
Stormwater Wetland - Completed***

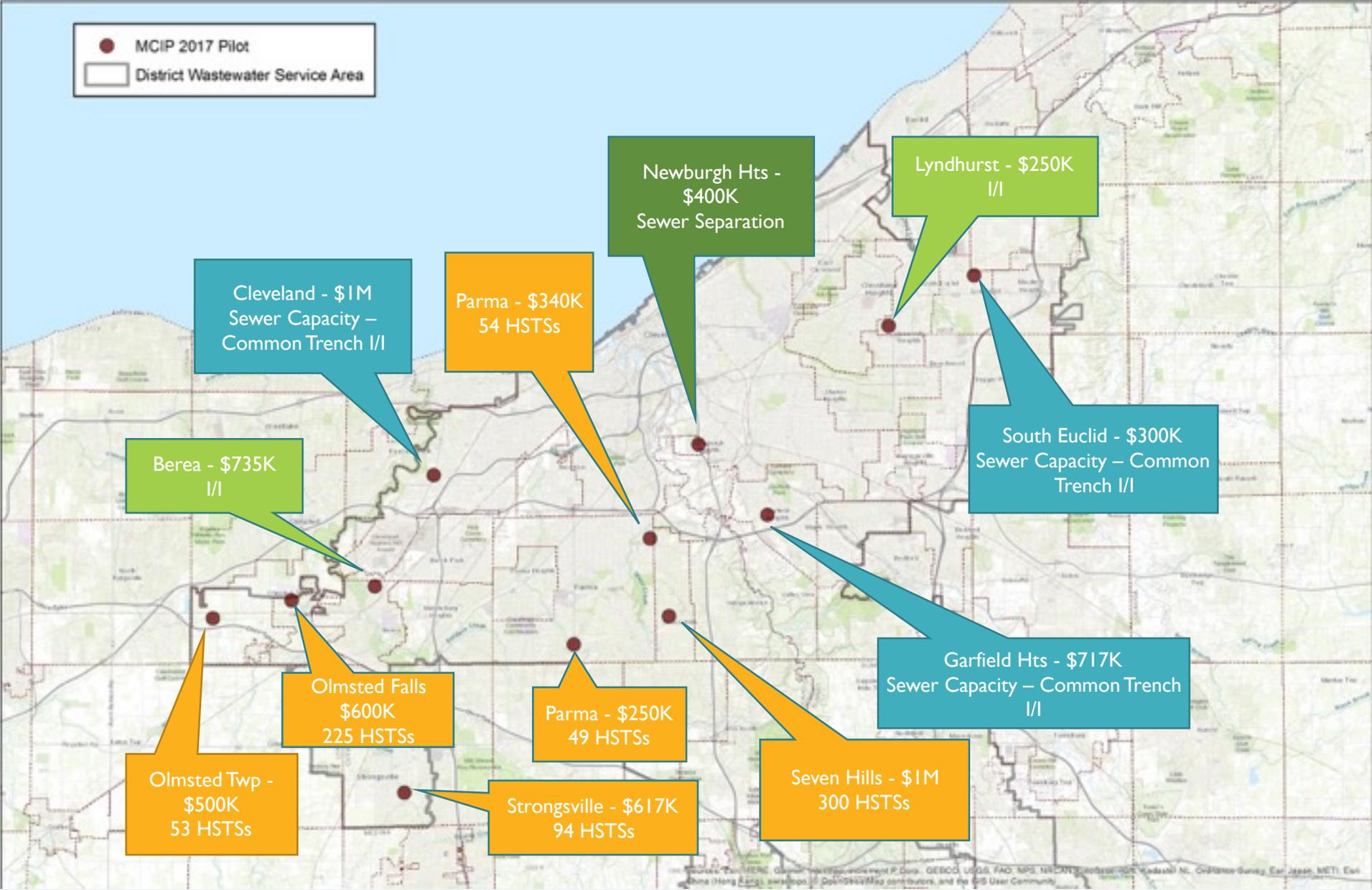
Member Community Infrastructure Program

Helping local governments address
chronic infrastructure issues

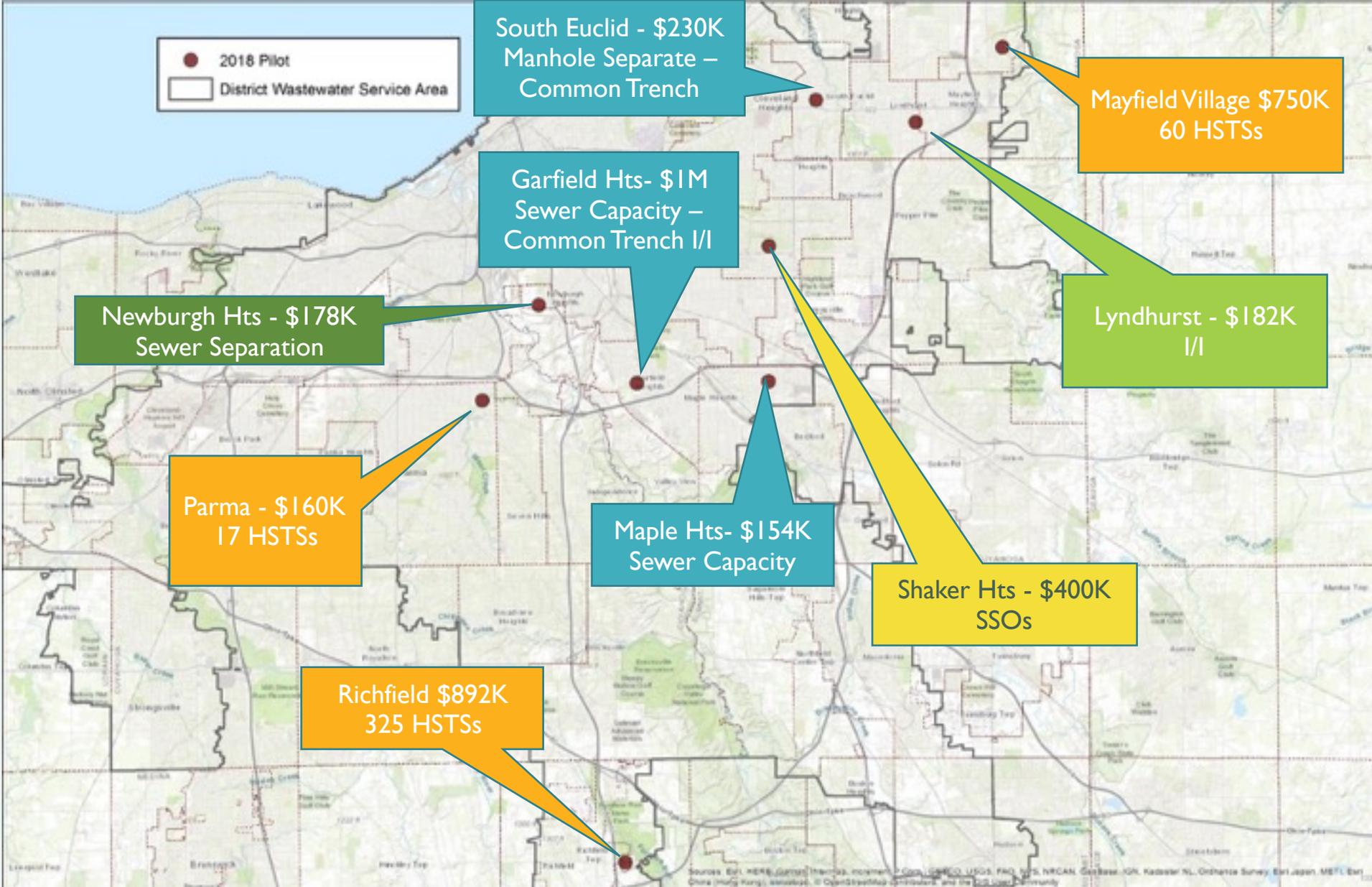
2021 Member Community Infrastructure Program

7 Awarded Projects

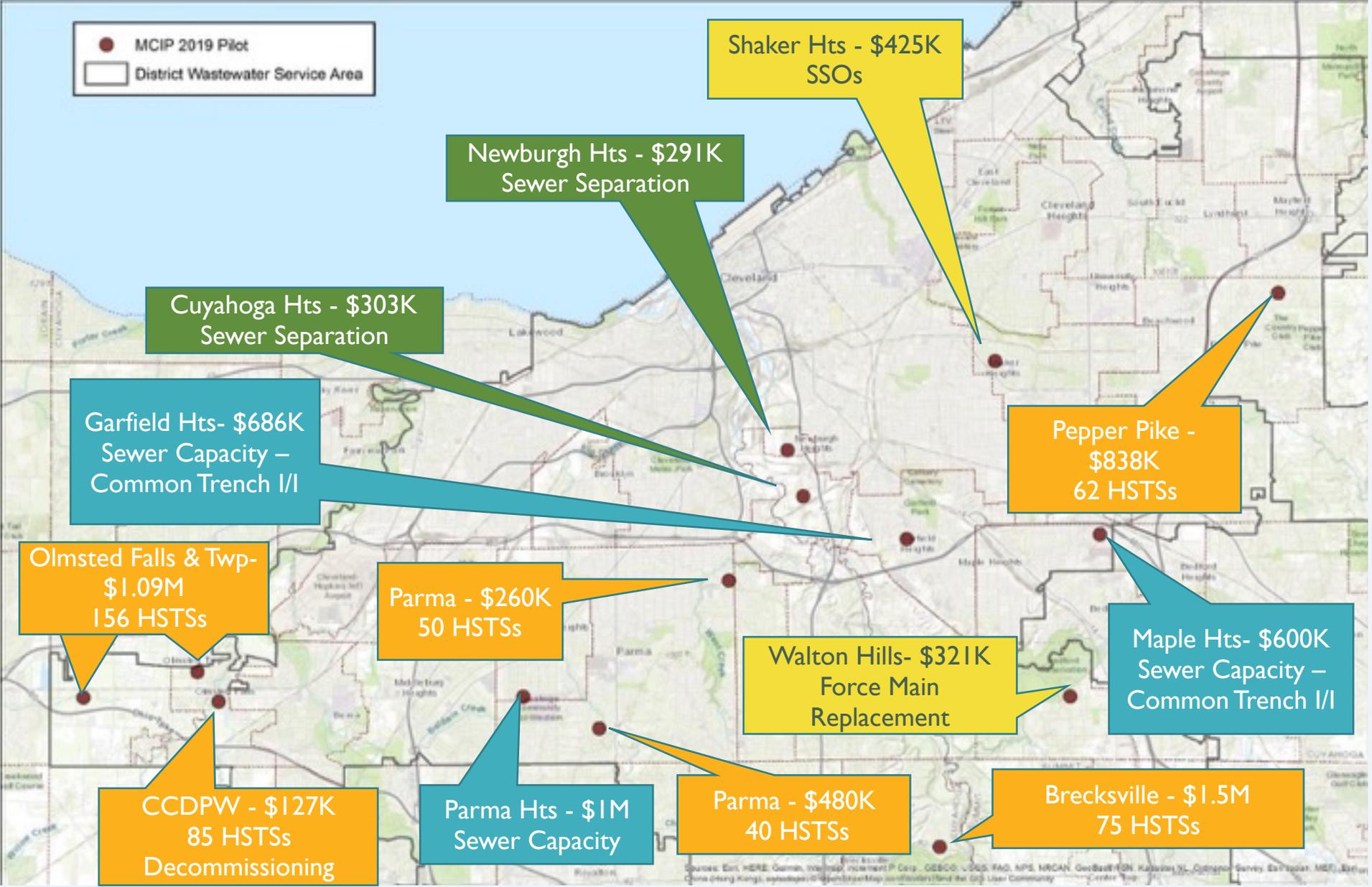
APPLICANT	PROJECT TITLE	<i>DESIGN & CONSTRUCTION REQUEST</i>
South Euclid	Oakmount Road Infrastructure Improvement Project	\$ 365,973.00
Maple Heights	Maple Heights Manhole Sewer Separation Project - Phase 2 (Northeast Quadrant)	\$ 1,021,887.00
Lorain County Commissioners	Westview I & I Remediation	\$ 359,300.00
APPLICANT	PROJECT TITLE	\$ <i>DESIGN REQUEST</i>
	Wheeler Avenue Sanitary Sewer Improvement Study and Design	TOTAL 1,747,160.00
East Cleveland	Lynnfield & Lomond SSO 11 Control Project	\$302,340.00
Shaker Heights	Krueger Avenue Area Sewer Improvements	\$112,500.00
Parma	Green Acres Area Sewer Improvement Project	\$260,000.00
Parma		\$78,000.00
TOTAL		\$752,840.00



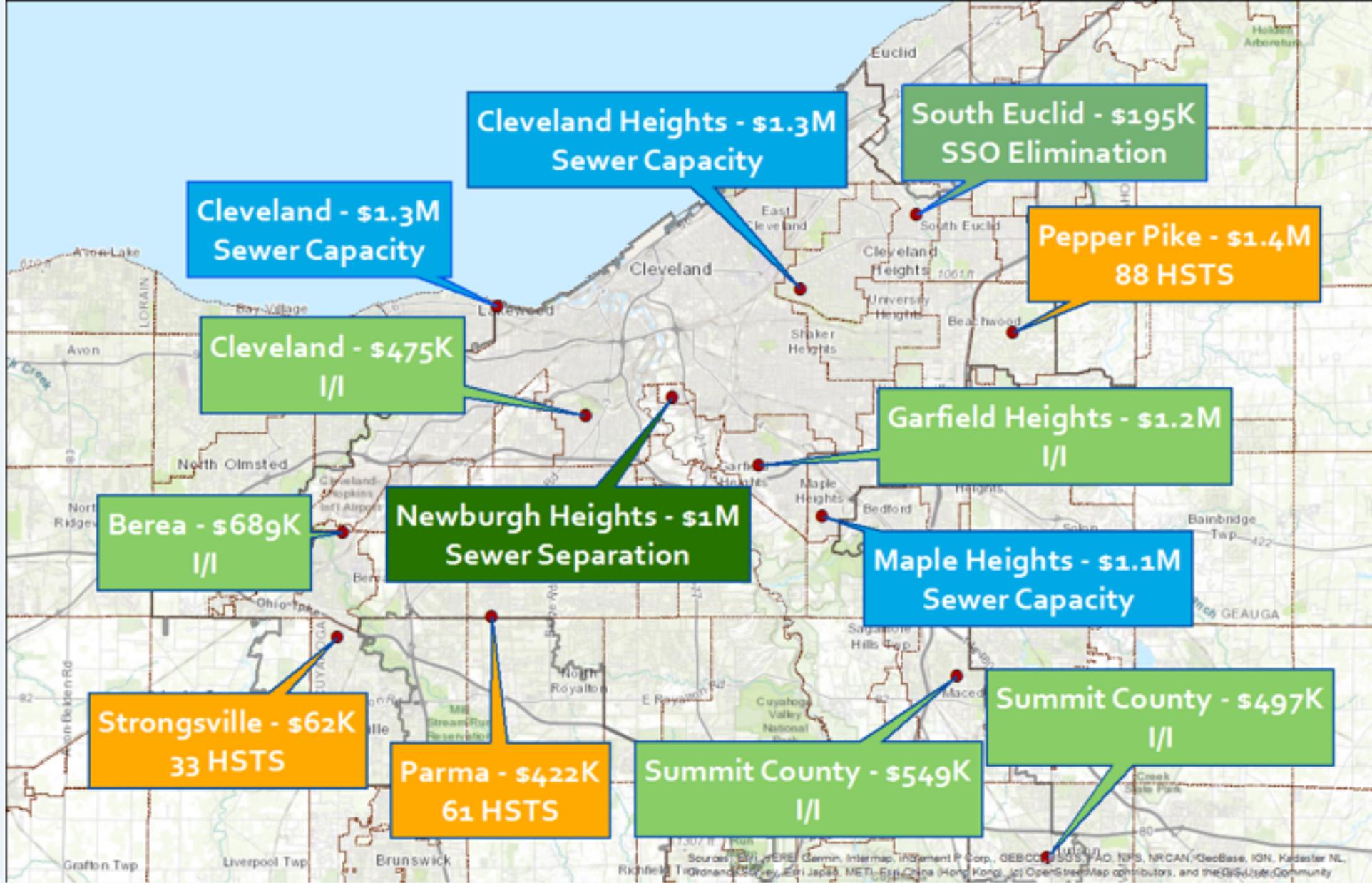
2017 Projects



2018 Projects



2019 Projects

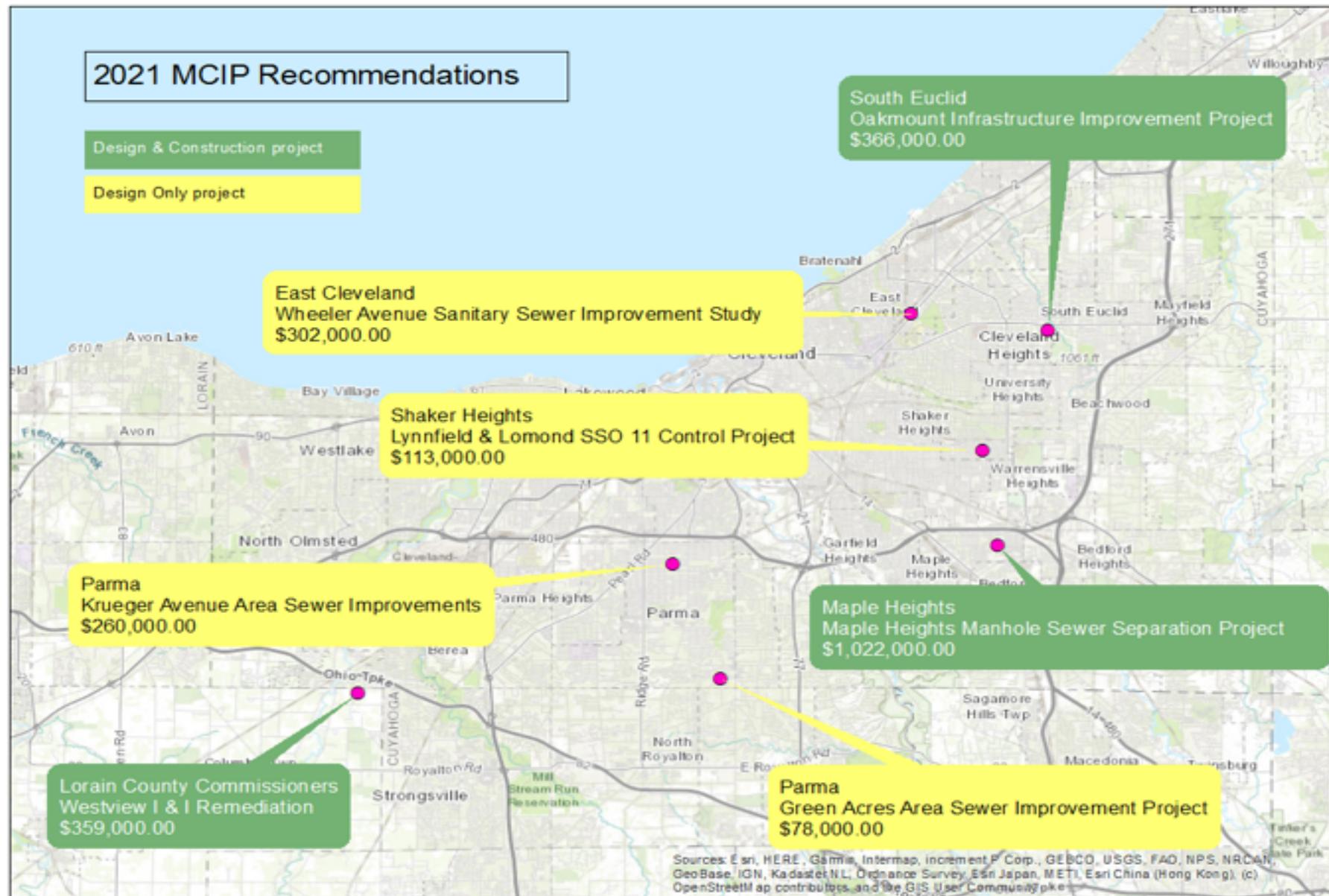


2020 Projects

2021 MCIP Recommendations

Design & Construction project

Design Only project



2021 Projects

Member Community Infrastructure Program 2017 - 2021 Project Impacts

MCIP Year	Basement Flooding Remediation	Reduced Impact on SSO/CSO	Removal of WWTP	HSTS Removal	Linear Feet of New Collection System
2017	427	3		779	67,855
2018	39	2	1	402	18,130
2019	659	3	2	232	34,147
2020	149	2		182	20,276
2021	332	1			20,591
TOTAL	1,606	11	3	1,595	160,999

Doing great work for a *Great Lake*





Great Lakes Advisory Board (GLAB)

March 1st, 2021.

Great Lakes Advisory Board - Charter

- ▶ The Advisory Board will provide advice and recommendations on matters related to: a. the Great Lakes Restoration Initiative; and b. the domestic implementation of the Great Lakes Water Quality Agreement between the U.S. and Canada.
- ▶ **Description of Duties:** The duties of the Advisory Board are solely to provide advice and recommendations to the EPA Administrator through the Great Lakes National Program Manager. In response to specific requests (i.e., charge questions) from the Agency, the Advisory Board will provide advice and recommendations on:
 - ▶ a. Great Lakes protection and restoration activities.
 - ▶ b. Long term goals, objectives and priorities for Great Lakes protection and restoration.
 - ▶ c. Other issues identified by the Great Lakes Interagency Task Force/Regional Working Group.
- ▶ Agency or Official to Whom the Committee Reports: The Advisory Board will provide advice and recommendations, and report to the EPA Administrator through the Region 5 Administrator in their capacity as the Great Lakes National Program Manager

Current GLAB Members

- **Co-Chair: Stephen Galarneau**, Director of the Office of Great Waters – Great Lakes & Mississippi River, Wisconsin Department of Natural Resources
- **Co-Chair: Kyle Dreyfuss-Wells**, Chief Executive Officer, Northeast Ohio Regional Sewer District
- **Scudder Mackey**, Chief of the Office of Coastal Management, Ohio Department of Natural Resources
- **James Williams Jr.**, Tribal Chairman, Lac Vieux Desert Band of Lake Superior Chippewa Indians
- **Jeff Stollenwerk**, Director of Government and Environmental Affairs, Duluth Seaway Port Authority
- **John Hull**, Founder and Chairman, Hull & Associates Inc.
- **Lisa Frede**, Director of Regulatory Affairs, Chemical Industry Council of Illinois
- **Larry Antosch**, Senior Director, Ohio Farm Bureau Federation
- **Kay Nelson**, Director of Environmental Affairs, Northwest Indiana Forum
- **J. Val Klump**, Dean and Professor of the School of Freshwater Sciences, University of Wisconsin - Milwaukee
- **Alan Steinman**, Director of Annis Water Resources Institute, Grand Valley State University
- **Brian Miller**, Retired, Illinois-Indiana Sea Grant and Illinois Water Resources Center
- **Sylvia Orduño**, Organizer, Michigan Welfare Rights Organization

Great Lakes Advisory Board

Theme 1: Legacy Phosphorus

Theme 2: Excess Nutrients

Charge Question 1 and 2

- 1) **Identify any strategies, using traditional or innovative technologies or methods, to reduce legacy phosphorus within the Lake Erie watershed (and other Great Lakes and tributaries thereto).**
- 2) Balancing the need for the continued production of agricultural commodities in the Great Lakes region, the contribution to excess nutrient loading in Lake Erie associated with agricultural production activities, and the need to significantly reduce the extent and duration of HABs on Lake Erie, **what innovative actions could reasonably be taken to accelerate the reduction of excess nutrients and HABs or duration of HAB events in Lake Erie?** Consider if there are new or different applications of traditional federal funding sources, opportunities to partner with the private sector (including tourism, drinking water systems, and others affected by HABs), or community-driven or market-based approaches to financing water quality improvements.

Great Lakes Advisory Board

Theme 3: GLRI Outreach

Charge Question 3

How well are EPA and its federal, state and tribal partners communicating the goals, challenges and accomplishments of GLRI? Are there stakeholder groups that could be more effectively communicated with? What additional and/or innovative tools could be used to improve outreach to citizens, elected officials and partners?



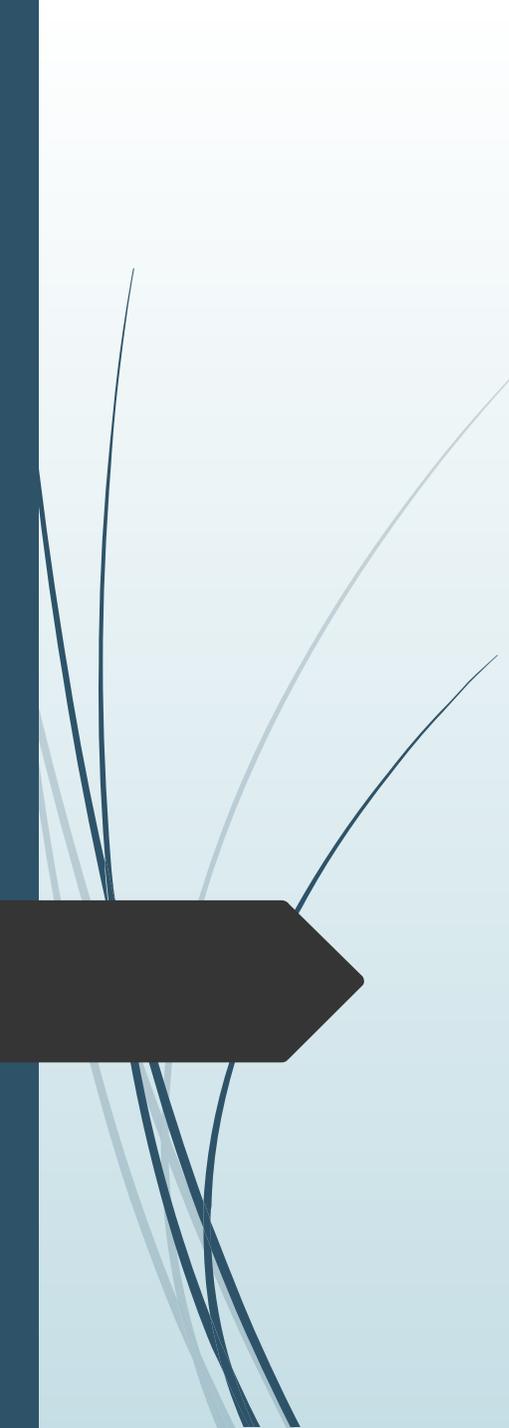
Great Lakes Advisory Board

Theme 4: Invasive Species

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Charge Question 4

Balancing the need for continued commercial, recreational and other activities on the Great Lakes, what innovative actions could reasonably be taken to accelerate the control of existing invasive species, and what methods or strategies can be deployed to prevent the establishment of future infestations?



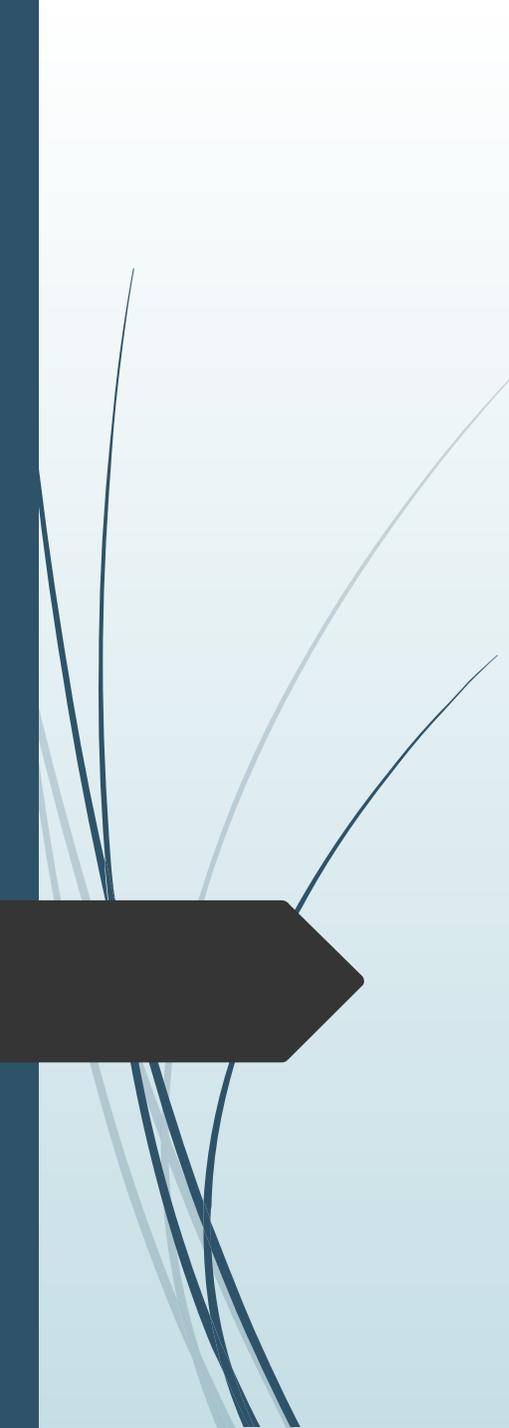
Great Lakes Advisory Board

Theme 5: Outcome Based Investments in the
Great Lakes



Charge Question 5

As we enter the next decade of GLRI funding, what are appropriate annual ecological and community-based outcomes (coupled with appropriate baselines and monitoring) to show that we are making progress in the areas of AOC remediation and delisting, invasive species control and prevention, nutrient reduction, and habitat restoration and protection, such that we can show a good return on investment?



Great Lakes Advisory Board

Theme 6: GLRI's Role in the Vitality and Reinvestment of Great Lakes Communities



Charge Question 6

- ▶ **How can GLRI projects and funding be further leveraged across Federal agencies and programs, including Opportunity Zones and Brownfields, to maximize environmental and economic benefits to Great Lakes communities?**