Working Together for Healthy Watersheds & Lake Erie: A Strategic Plan for the Central Lake Erie Basin Collaborative

2021-2026

Vision:

Collective work yields more than can be accomplished alone. The Central Lake Erie Basin Collaborative is a unique network of efficient, coordinated, and strategically aligned organizations accelerating progress toward our collective goal of protecting and restoring Lake Erie and its watersheds. We envision a future in which Central Lake Erie Basin watersheds support healthy forests, streams, and wetlands and are desirable places to live, work and play. The Collaborative invests in people with the expertise, knowledge, and skills to realize this vision. This empowers watershed organizations and communities across 16 Northern Ohio counties to address threats to Lake Erie and its watersheds, safeguarding our region's valuable water resources. Together, we:

1. Accelerate progress toward clean streams and a healthy Lake Erie.
2. Share and expand skills, services, and resources.
3. Enhance efficiencies and fill gaps in service.
4. Increase the power of our collective voice.
5. Serve as a unique model of regional collaboration.

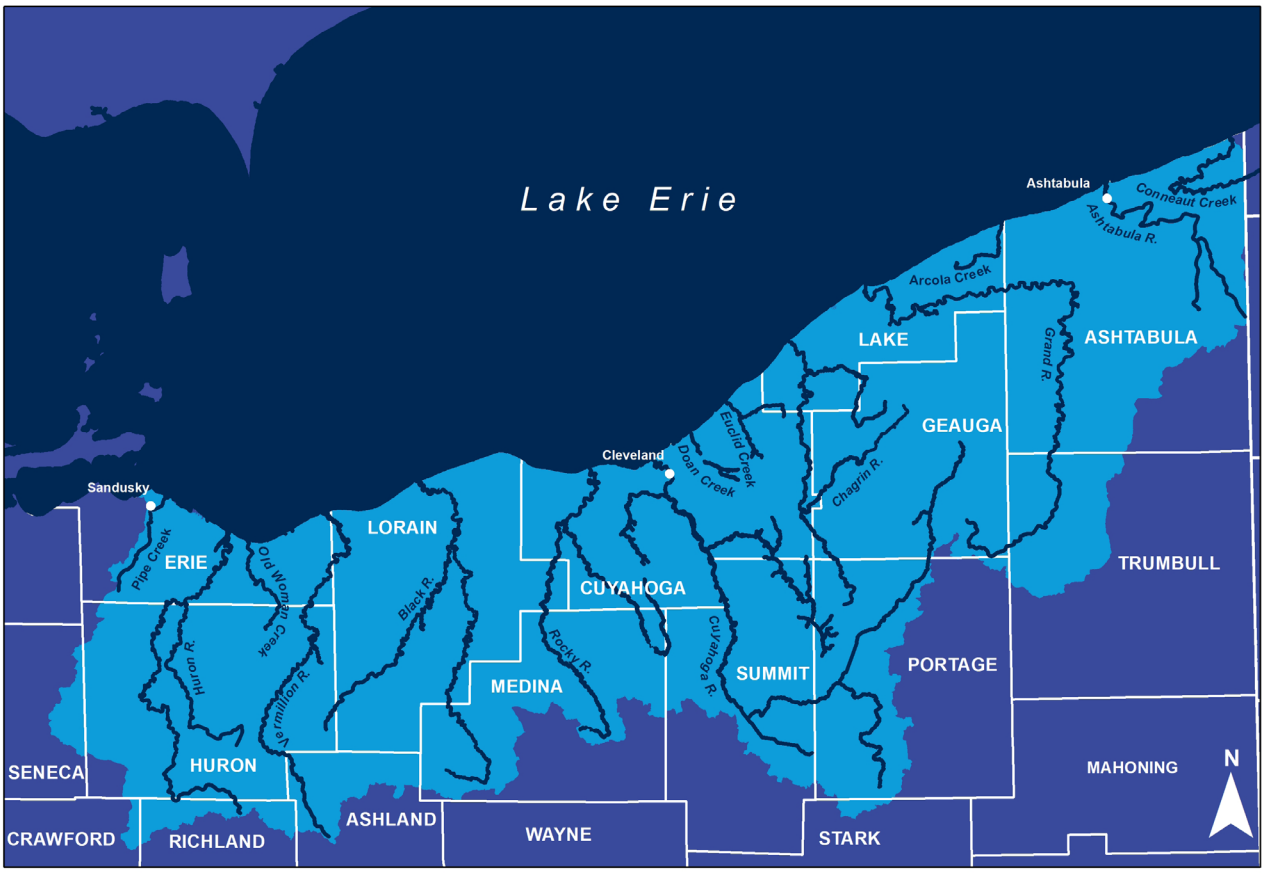
Executive Summary:

This strategic plan outlines priority objectives, projects and programs to achieve measurable progress toward the Central Lake Erie Basin Collaborative's protection and restoration goals and desired long-term outcomes to achieve healthy watersheds, communities and Lake Erie. The plan serves as a roadmap for expanding the Collaborative's strategic role as a network, developer of resources, convener, and collective voice for watershed organizations.

The strategic plan describes how the Collaborative's collective voice can help inform and influence policy and legislation and state and federal funding priorities. The plan describes how the Collaborative will continue filling gaps, enhancing environmental outcomes and improving efficiencies, including exploring development of an umbrella organization, mergers, or fiscal agencies. It outlines next steps for investigating and developing innovative financing mechanisms for watershed protection and restoration and identify opportunities to partner with universities on research to identify solutions to our watershed challenges.

Based on our Theory of Change (Appendix A), this plan describes our region's watershed challenges, desired long-term outcomes, and the Collaborative's objectives, strategies, and priorities over the next five years. The Collaborative is committed to revisiting this plan at Year 3 to examine if any shifts have occurred externally or internally that should be reflected in this document.

The Collaborative Map



Our Watersheds

Lake Erie is the shallowest, warmest, most densely populated Great Lake and most susceptible to the water quality impacts of urbanization. The Lake is the drinking water source for over 11 million people. According to a 2017 study by Oxford Economics, Lake Erie supports a $15.1 billion coastal tourism-related economy that supports 127,852 Ohio jobs and generated $1.9 billion in total taxes, almost a third of the annual tourism related spending, jobs, and taxes for the entire state.

Healthy watersheds filter and store water, filter air, store and cycle nutrients, build soils, and provide many other intrinsic social and cultural values. Our watersheds and Lake Erie are threatened by urban development and agricultural land uses that increase stormwater runoff and nonpoint source pollution, flooding, erosion, combined sewer overflows, hypoxia, and harmful algal blooms. Other threats include habitat fragmentation, invasive species, shoreline alterations, contaminated sediments, point source pollution, barriers to fish passage, and climate change. More frequent and heavy downpours are causing flooding, erosion and water pollution that are harmful to people and nature.

Strategic Roles of the Collaborative

• Serve as a **Network** among organizations and leaders. Develop shared management standards. Collaborate on stewardship outreach programs.

• **Develop resources and build capacity** including technical support and shared services as well as for leveraging funding, building capacity, and increasing efficiency. Conduct applied research to inform broader implementation. Disseminate the means to conduct consistent and collective water quality monitoring.

• Provide a **collective voice** for setting regional goals and priorities and develop unified messaging on watershed stewardship.

• **Convene** partners, develop new finance models, connect stakeholders, and build partnerships. Improve government relations regarding funding and regulations.

Participants & Partners

Collaborative members include nonprofit watershed organizations and fiscal partnerships, watershed programs housed at county agencies such as Soil and Water Conservation Districts, and volunteer-based initiatives with a primary focus on watershed protection and restoration. These members participate in regular Collaborative meetings. A list of participating watershed organizations and initiatives and funding partners can be found in Appendix B.

The Collaborative also engages with park districts, stormwater utilities, and land trusts on shared priorities. The Collaborative works with diverse stakeholders to increase awareness and remove barriers to watershed stewardship. Key partners include community officials and planning, engineering and economic development departments, park districts, health districts, stormwater utilities, state and federal agencies, foundations, conservation organizations, educational institutions, community development corporations, religious institutions, media, residents, landowners, businesses, outdoor enthusiasts, health institutions, and providers. The Collaborative strategically engages partners and funders where this supports regional goals.

Statement on Equity, Inclusion, & Diversity

Everyone has a right to a safe and healthy environment, clean water, clean air, parks, and natural areas. The Collaborative is committed to enhancing equity, inclusion, and diversity in all that we do.

Core Values and Principles

These values and principles help guide our work and processes. We commit to keep these in the forefront of our work together.

1. Collective Impact – The purpose of the Central Lake Erie Basin collaborative is to share and leverage resources to achieve greater collective impact on eight major watersheds in northern Ohio than we could as individual organizations.

2. Participation by Choice – Participating in the Central Lake Erie Basin collaborative is the choice of each member organization.

3. Autonomy – We recognize and respect the individual autonomy of member groups and their organizational identity.

4. Accountability – With membership comes responsibility. Member organizations have the responsibility to participate and contribute as they choose and are able.

5. Transparency – We are committed to being transparent in grant proposals, collective planning, and collaborative decisions.

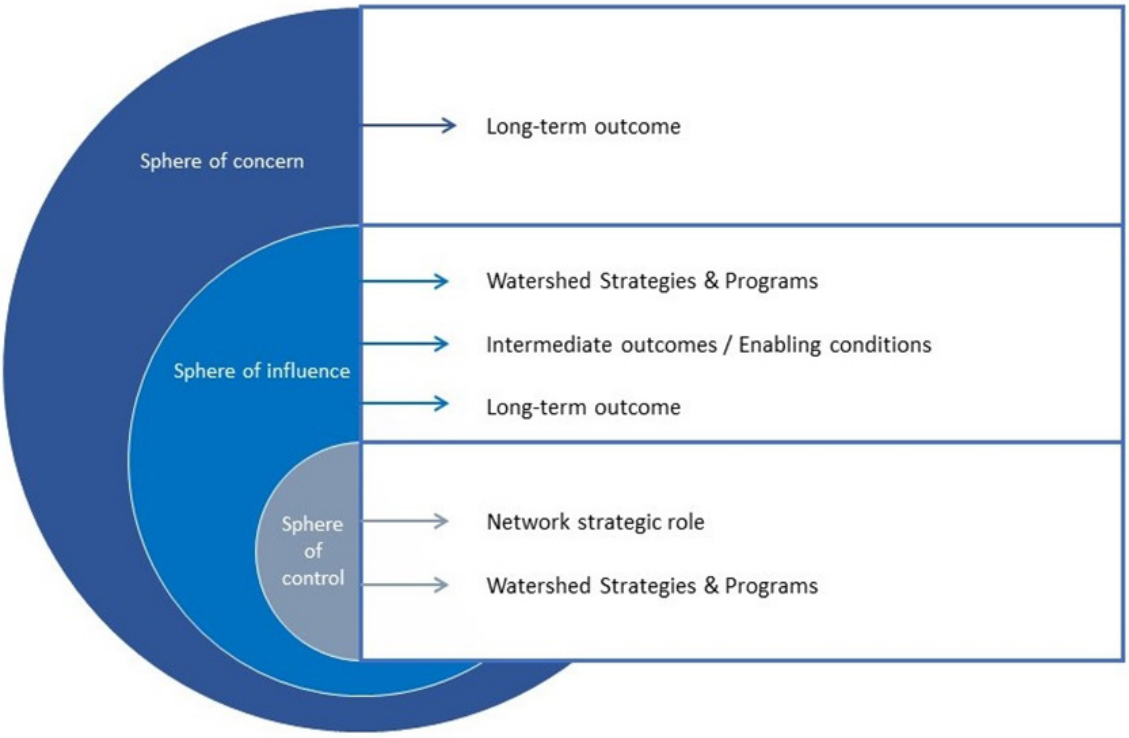
6. Communication – Open regular communication is the underpinning for our collective work and is critical to maintain trust among partners.

7. Consensus – We strive to build consensus for our decisions and will try to achieve collective agreement when possible. We recognize there may be times when a subset of the collaborative may decide on a course of action that all will not participate in pursuing.

Desired Impact

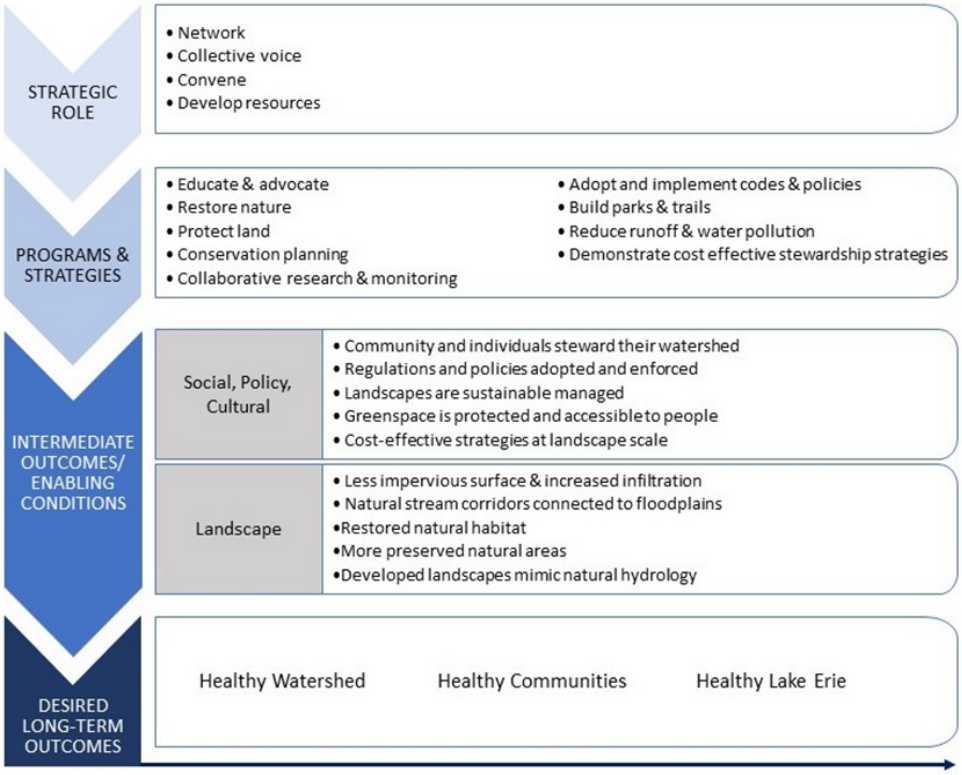
Together, Collaborative organizations are working toward healthy communities, healthy watersheds, and a healthy Lake Erie. Healthy watersheds substantially benefit the quality of life for people and the environment by performing free services that communities do not have to do or pay for themselves. Free services provided by healthy watersheds include improving water quality, storing carbon, reducing vulnerability to climate change threats and other natural disasters, controlling erosion and sedimentation, increasing biodiversity, providing wildlife habitat, storing water, controlling floods, and providing food, timber, and recreation. Our efforts are a driver of economic recovery. According to a recent World Economic Forum report, tackling the global nature crisis could create 400 million jobs and $10 trillion in business value each year by 2030.

What is a Theory of Change?



The Collaborative's primary sphere of control lies within its strategic role and programs and strategies, its sphere of influence extends to intermediate outcomes and enabling conditions which will ultimately contribute to healthy watersheds, communities and Lake Erie.

Theory of Change



The Central Lake Erie Basin Collaborative

is working towards

Healthy Watershed	Healthy Communities	Healthy Lake Erie
• Fishable, swimmable, drinkable streams • Healthy habitats and ecosystems where biodiversity is preserved • Ecological integrity institutionalized at all levels and across all sectors • Resilient watersheds	• Sustainable and resilient • Resilient to flooding and erosion impacts of storms • Connected greenspaces • Cooperate regionally to sustain healthy watersheds • People engage with nature and understand their collective impact on Lake Erie • Northeast Ohio leads innovative programs and practices for green communities and clean water	• Fishable, swimmable, drinkable Lake Erie

Intermediate Outcomes/Enabling Conditions

Over the five year time frame of this strategic plan, the Collaborative's watershed strategies and programs will lead to the following intermediate outcomes and enabling conditions which will support progress toward our desired long-term outcomes:

Landscape enabling conditions (may vary by watershed depending on level of development/urbanization)

1. Less impervious surface and increased infiltration
2. Natural stream corridors can flood into their floodplains to store stormwater during heavy rains
3. Restored natural habitat
4. More preserved natural areas
5. Developed landscapes mimic natural hydrology
6. Unique urban ravines/escarpment features protected and restored
7. Non-point and point-source pollution is abated

Social, policy and cultural enabling conditions

1. Regulations and policies are adopted and enforced
2. Cost-effective strategies are developed at a landscape scale
3. Greenspace is protected and accessible to people
4. Landscapes are sustainably managed
5. Community and individuals steward their watersheds

Regional Watershed Protection & Restoration Goals

The Collaborative has established the below watershed protection and restoration goals. Some of these goals are based on restoration milestones established by state and federal agencies such as the goal of reducing phosphorus loading to Lake Erie by 40% which has been established by the governors of Ohio and Michigan and the Premier of Ontario through the signing of the western basin of Lake Erie Collaborative Agreement, first in 2015 and again in 2019, and within Ohio's Domestic Action Plan which will advance efforts toward the proposed nutrient reduction targets put forth in the Great Lakes Water Quality Agreement under Annex 4 (Nutrients).

1. Reduce total annual phosphorus loads to Lake Erie by 40%.
2. Attain water quality standards for streams in subwatersheds with less than 25% impervious cover.
3. Treat, remove, or disconnect impervious surfaces from storm sewer systems and streams to reduce effective impervious cover below 25% in highly impervious subwatersheds.
4. Improve or maintain 50% natural land cover (forest, shrubs, wetlands).
5. Protect 20% of the land area through conservation easements, public or conservation ownership, or passive park zoning.
6. Protect 50% of stream corridors as conserved open space or through protective zoning (riparian setbacks).

Measuring Success

Our long-term watershed outcomes are measured by Ohio EPA through full attainment of beneficial use designations for protection of aquatic life, recreational activities, and water supplies. When attainment is achieved and maintained, it leads to streams and a Lake Erie that are fishable, swimmable, and drinkable.

Metrics such as volunteer service, acres protected, linear feet of stream protected and restored, and funding leveraged track our progress toward intermediate outcomes that will lead to healthy watersheds, communities, and Lake Erie. The Collaborative's success is also measured by how it is valued by participating organizations, partners, and funders. To gauge progress toward Collaborative outcomes, participating organizations track collective achievements. Please see Appendix D for a summary of the Collaborative's accomplishments since July 2018. Participating organizations have leveraged over $48 million for natural area protection and restoration, stream corridor enhancements, trail development, green stormwater infrastructure, and regional technical services since 2016.

The collaborative will continue tracking these metrics to gauge progress toward the below intermediate outcomes that support achievement of long term outcomes and regional goals:

Intermediate Outcomes/ Enabling Condition(s)	Metric(s)	Stakeholders	Target 2021-2026
• Communities and individuals steward their watersheds	• Service hours of volunteers engaged in stream cleanups, riparian plantings, rain garden maintenance, storm drain marking, invasive species control	Landowners, renters, government agencies and elected officials, nonprofit organizations, business community, educational institutions, outdoor recreation community	Volunteers donate 21,000 hours of service to clean up streams, plan trees along streams, maintain rain gardens or maintain invasive species
• Greenspace is protected and accessible to people • Less impervious surface and increased infiltration • Developed landscapes mimic natural hydrology • Cost-effective strategies at landscape scale	• Funding leveraged for natural area protection and restoration, stream corridor enhancements, trail development, green stormwater infrastructure and regional technical services	Nonprofit organizations, government agencies and elected officials, business community, philanthropy and media, health care community	Leverage $60 million for natural area protection, restoration stream enhancements, trail development, green infrastructure, and shared services

Continued

Intermediate Outcomes/ Enabling Condition(s)	Metric(s)	Stakeholders	Target 2021-2026
• Natural stream corridors connected to floodplain • Restored natural habitat	• Linear feet of stream or Lake Erie coast restored, acres of wetland restored	Nonprofit organizations, landowners, business community, government agencies and elected officials, philanthropy and media	Restore 46,350 linear feet of stream and 34 acres of wetland
• More preserved natural areas • Regulations and policies are adopted and enforced	• Acres of land protected through conservation easements, land acquisition, or adoption of riparian/ wetland setbacks • Linear feet of streams protected through conservation easements, land acquisition, or adoption of riparian/ wetland setbacks	Nonprofit organizations, government agencies and elected officials, landowners, renters, business community, outdoor recreation community, health care community	Protect 2,080 acres of land and 144,212 linear feet of stream through conservation easements, land acquisition, or adoption of riparian setbacks
• Landscapes are sustainably managed	• Acres of land and linear feet of stream enhanced through plantings or invasive species removal	Landowners, government agencies and elected officials, nonprofit organizations, business community, educational institutions, religious institutions, health care community	Enhance 142 acres of land and 20,000 linear feet of stream through plantings or invasive species removal, including 44 acres of wetland

Strategies for Healthy Watersheds & Communities

Our strategies support our progress toward long term outcomes and regional goals.

1. Educate and Advocate
    a. Foster stewardship of watersheds and Lake Erie through the Master Rain Gardener and stream stewardship programs.
    b. Increase awareness and remove barriers to stewardship for key stakeholders.
    c. Inform policy decisions by helping local elected leaders and officials to look at challenges and potential solutions through a watershed lens.
    d. Engage, listen and include voices of people of color regarding watershed challenges, needs, and solutions. Identify and adopt practices that the Collaborative can do to increase water equity.

2. Restore nature
    a. Restore streams, floodplains, and riparian corridors.
    b. Support delisting of Areas of Concern and continue spearheading restoration after delisting is achieved.
    c. Support regenerate brownfield approach (adaptive reuse).
    d. Work with communities to enhance tree canopy in areas of greatest need.
    e. Advance "nearby nature" such as increasing tree canopy, pollinator habitat, or green stormwater infrastructure in urban neighborhoods.

3. Protect land
    a. Protect high value natural lands and restore priority lands.
    b. Demonstrate cost effective stewardship strategies.
    c. Discourage unsustainable development.

4. Conservation planning
    a. Develop watershed plans with a headwaters to confluence approach.

5. Collaborative research and monitoring
    a. Instigate research that demonstrates benefits of headwater stream protection and restoration.
    b. Demonstrate cost-effectiveness of smaller watershed protection and restoration projects.
    c. Support citizen science initiatives to increase understanding and inform decision-making regarding watershed health.

6. Adopt and implement codes and policies
    a. Develop and advocate for sustainable policies.
    b. Adopt and implement natural resource protection codes to reduce runoff and protect watersheds.
    c. Develop higher standards for floodplain and stormwater management.
    d. Prevent unsustainable development in riparian areas.
    e. Enhance model codes to enhance community resilience to climate change and severe storms.

7. Build parks and trails
    a. Enhance public access to natural areas.
    b. Develop trails that connect communities with each other and the environment.
    c. Restore ecological systems within parks.

8. Reduce runoff and water pollution
    a. Reduce sources of contaminants to waterways, including sediment, salts, bacteria, nutrients, and chemicals.
    b. Implement stormwater retrofits to treat, remove or disconnect impervious surfaces to slow and store stormwater, particularly in low-income communities and communities of color.
    c. Utilize urban and agricultural best management practices to keep soil and nutrients on land by reducing runoff through development best management practices.
    d. Keep soil and nutrients on land through agricultural best management practices.
    e. Improve wastewater treatment in rural and suburban areas.
    f. Treat stormwater and wastewater as a resource to be used rather than a problem to be solved.

9. Demonstrate cost effective stewardship strategies
    a. Work with communities and developers to consider watershed protection and stormwater management early in the development process.
    b. Develop and coordinate programs that foster and incentivize individual and community stewardship such as the Master Rain Gardener Program or Backyard Habitat Stewards.

Strategies for Advancing the Network

1. Build Capacity
   a. Provide technical services to help watershed organizations and communities improve water quality and enhance quality of life through preserving natural areas, restoring streams and wetlands, treating stormwater runoff, reconnecting floodplains, and improving trails, parks, and outdoor recreation opportunities. Support organizations in engaging diverse stakeholders as they seek to increase equity and inclusion in/through their work.
   b. Lead watershed planning and support land use planning and zoning codes that protect streams and wetlands and reduce impervious cover.
   c. Continue and establish new programs to develop and train future watershed leaders and expand the capacity of watershed organizations such as the Northern Ohio Watershed Corps (NOWCorps) Program led by Tinker's Creek Watershed Partners (TCWP).
   d. Identify and implement solutions that employ natural processes for climate change resilience.
   e. Train watershed organizations to develop conceptual plans for stormwater control measures and stream and wetland restoration projects.
   f. Offer a workshop to Collaborative watershed organizations to support the ability of each member of the network to enhance equity and inclusion in their work.
   g. Develop a screening tool for stormwater basin retrofit opportunities with a suite of basin retrofit conceptual plans and cost estimates appropriate for northeast Ohio.
   h. Provide administrative support and fiscal agencies to assist watershed organizations in pursuing their mission.
   i. Support Collaborative organizations in community engagement, education and event planning.

2. Networking
   a. Forge new partnerships with diverse communities and expand support to drive progress toward the Collaborative's protection and restoration goals.
   b. Dedicate Collaborative time and resources to listening to community needs and desires and co-creating solutions to watershed challenges.

3. Convening
   a. Bring watershed organizations together to share progress, identify needs, and explore opportunities to collaborate.
   b. Serve as a catalyst for project and program collaborations among groups of members.

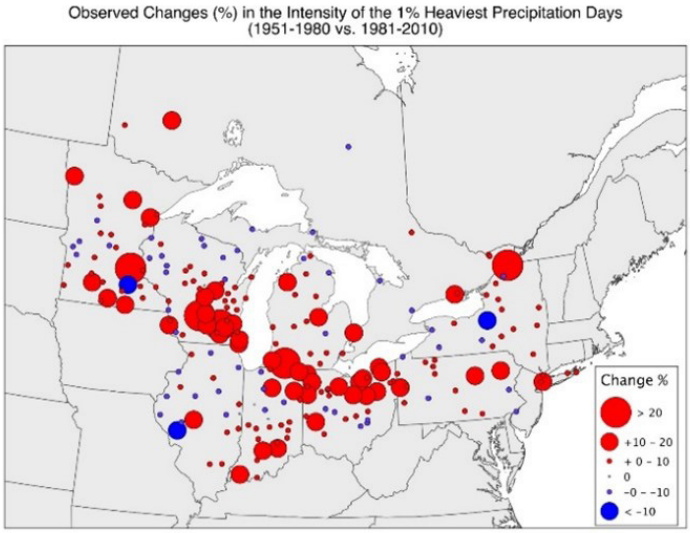
4. Collective Voice
   a. Set regional goals and priorities and track progress toward them.
   b. Collectively pursue funding for priority projects and regional initiatives with the highest conservation value. Prioritize projects in low-income areas and communities of color that have community support and provide multiple benefits beyond water quality improvement.
   c. Communicate the Collaborative's goal and priorities to funders and build coordinated support for watershed work.
   d. Map ecological data to refine conservation goals, including nutrient reduction, water quality attainment, impervious surface reduction, land protection, and stream and wetland restoration.

Watershed Protection & Restoration Priority Projects

The Collaborative has identified 42 priority watershed protection and restoration projects that would protect approximately 597 acres of land, protect 41,819 linear feet of stream, and restore 37,899 linear feet of stream providing substantial sediment and nutrient load reductions to Lake Erie and its watersheds. 14 of these are wetland restoration projects to restore 88.3 acres of wetlands. Estimated funding needs for all projects is $27,561,669. A complete list of priority projects can be found in Appendix C. This list is a living document and will be updated on an annual basis.

The Collaborative & Climate Resiliency

The Collaborative harnesses the expertise, experience, and knowledge of watershed organizations and diverse partners to address the challenge of climate change. Our programs and strategies such as protecting land and restoring nature can also help communities and watersheds adapt to climate change.



According to the National Climate Assessment, the Midwest is projected to experience more extreme heat, heavy downpours and flooding. Climate change will also exacerbate risks to the Great Lakes, including changes in the range and distribution of certain fish species, increased invasive species and harmful algal blooms, and declining beach health. Increased heat wave intensity and frequency, increased humidity, degraded air quality, and reduced water quality will increase public health risks. Increased rainfall and flooding will contribute to erosion, declining water quality, and negative impacts on transportation, agriculture, human health, and infrastructure. Central Lake Erie Basin watersheds are at risk when climate stressors, such as temperature increases and more frequent extreme precipitation events interact with land-use change, habitat loss, pollution, nutrient inputs, and nonnative invasive species to negatively impact ecosystems. For example, increasing temperatures and changing rainfall patterns interact with existing forest stressors such as invasive species and pests to increase tree mortality and reduce forest productivity.

Extreme precipitation events have become stronger and more frequent. In the Midwest, the amount of precipitation that falls during heavy storms (the largest 1% of storms) increased by 37% from 1958 to 2012. Cleveland experienced a 16.3% increase in the number of days with precipitation in the top 1% of the daily total precipitation and an increase of 22.2% in the amount of rain falling in these very heavy precipitation events in 1981-2010 compared to 1961-1990 (GLISA 2016).

In western agricultural watersheds, runoff carrying nutrients and sediments, can lead to hypoxia and toxic algal blooms in Lake Erie which are predicted to increase as climate continues to change. Increased water temperatures and nutrient inputs also contribute to harmful algal blooms that are toxic to people, pets, and native species. In urban watersheds, stormwater management systems and other critical infrastructure are already experiencing impacts from changing precipitation patterns and elevated flood risks.

The Collaborative implements solutions that employ natural processes for climate change resilience at regional and watershed scales. For example, a project recently led by a network partner connected forest managers to improve forest resilience and share management approaches with across the Great Lakes region. Nature-based solutions to climate change are often the most cost-effective approaches and yield co-benefits such as improving air and water quality, decreasing local temperatures, and adding green space. In urban and suburban areas, infiltration can be enhanced by reducing impervious surface, installing green stormwater infrastructure and planting new urban forests. In agricultural landscapes, natural hydrology can be preserved and sometimes restored. This helps protect people and nature, including vulnerable populations, such as the elderly, chronically ill, and low-income residents.

How the Collaborative Works

A steering committee coordinates the Collaborative and meets regularly to provide vision and direction, track progress, coordinate partner engagement, and plan network meetings. The committee consists of staff from the Chagrin River Watershed Partners, Inc. (CRWP), West Creek Conservancy (WCC), Doan Brook Watershed Partnership (DBWP), The Nature Conservancy (TNC) and Tinker's Creek Watershed Partners (TCWP). Network meetings are held at least quarterly and include regional goal setting, coordination on joint projects and grant opportunities, coordination of community engagement and education, and discussions with partners to expand the Collaborative's work. The Collaborative uses a consensus-based approach to decision making on key issues. Collaborative organizations retain their own autonomy and decision-making; the Collaborative doesn't set priorities for member organizations. The steering committee often makes recommendations to the Collaborative. For example, the steering committee may select a consultant to provide services to Collaborative organizations based on organization input.

Participating organizations rely upon the network as a learning community for sharing tools and resources and for technical assistance and project-based partnerships that help drive progress toward watershed goals. Each participating organization receives technical assistance from regional service providers. Organizations call on service providers for a broad array of technical support for projects to support healthy ecosystems, clean water and connect people with our rivers and Lake Erie. Services include watershed planning, assessing habitats, grant-writing, protecting natural areas and greenspace, administrative support, staff training and capacity-building, and helping communities adopt and enforce watershed protection codes. The Collaborative enhances capacity and fills gaps where there are no paid staff dedicated to watershed work. Participating organizations engage in ongoing dialogue and share information through a list serve.

The Collaborative has fostered strategic mergers, fiscal sponsorships and formal partnerships which have increased efficiency and reduced overhead and redundancy. It is now common for organizations to work together on planning and projects even without formal arrangements. The Collaborative supports emerging watershed efforts avoiding the need to form new organizations. The benefits of these relationships are reciprocal, as they expand our collective voice to communicate the value of healthy watersheds to the diverse people needed to protect and restore streams and Lake Erie.

Participating Watershed Organizations & Initiatives & Funding Partners

Partner Organizations with Staff

Big Creek Connects
Bluestone Heights
*Chagrin River Watershed Partners
Cuyahoga River Restoration
Cuyahoga Soil and Water Conservation District
*Doan Brook Watershed Partnership
Euclid Creek Watershed Program/Friends of Euclid Creek
Firelands Coastal Tributaries Watershed Program (Erie Conservation District)
Lake Soil and Water Conservation District
Mill Creek Watershed Partnership
Rocky River Watershed Council
Summit Soil and Water Conservation District Watershed Program
*Tinker's Creek Watershed Partners
*The Nature Conservancy
*West Creek Conservancy
*Central Lake Erie Basin Collaborative Steering Committee

Un-staffed Partner Organizations

Black River Area of Concern
Breakneck Creek
Brandywine Creek
Chippewa Creek
Friends of Yellow Creek
Friends of Old Woman Creek
Grand Ashtabula Conneaut Partnership
Middle Cuyahoga River
Friends of the Crooked River
Friends of Vermilion River
Plum Creek

Current and Past Funders

The George Gund Foundation
The Cleveland Foundation
Ohio Environmental Protection Agency
Northeast Ohio Regional Sewer District
U.S. Endowment for Forestry and Communities
U.S.D.A. Natural Resources Conservation Service
William Bingham Foundation
Ohio Department of Natural Resources Office of Coastal Management
Lake County Stormwater Management Department
Great Lakes Commission Green Infrastructure Champions Program
Fred A. and Barbara M. Erb Family Foundation

List of Priority Projects (as of March 8, 2021)

A map of these projects can be found here:
https://drive.google.com/file/d/1Xn6yMr1-BNE9vDTeEh9WjgfJOlUsICCR/view?usp=sharing

Project ID	Entity	Project Name	Short Project Description (3 sentences or less)	HUC12 Code	Geographic Coordinates of Project	Readiness Status Description (Dropdown Box)	Local or regional plans NPS-IS Plan	Other Community/Utility/Conservation Plan	Estimated Budget
1	LSWCD	Arcola Creek Daylighting at Madison HS	Daylight 900 ' of Arcola Creek, restore floodplain and riparian buffer	041100030302	41.7924, -81.07	Planning Phase	Yes	No	unknown
2	LSWCD	Lake County Nursery Self Forming Channel	Address erosion and sedimentation of channel on nursery fields. Utilize as demonstration project of this practice for nursery use.	041100030204	41.768, -81.159	Planning Phase	Yes	No	unknown
3	LSWCD	Marsh Creek Dam Removal	Remove dam on Marsh Creek to re-establish free flowing stream. Remove silted-in pond, reduce downstream erosion, allow fish passage.	041100030501	41.712, -81.339	Planning Phase	Yes	No	unknown
4	LSWCD	Outlet Blackbrook Creek to Lake Erie	Restore natural outlet of Blackbrook Creek to Lake Erie. Outlet was historically rerouted to the Grand River.	041100030501	41.754, -81.292	Planning Phase	Yes	No	unknown
5	LSWCD	Newell Creek Dam Removal & Stream Restoration	Remove dam on Newell Creek to re-establish free flowing stream. Remove silted-in pond, restore 1,250 ' of Newell Creek and access to floodplain, allow fish passage.	041100040602, 041100040604	41.651, -81.346	Planning Phase	Yes	No	unknown
6	LSWCD	ODOT-Kellogg Green Infrastructure	Install infiltrative practices at the I-90 rest stops and plant trees in I-90 median strip in Kellogg Creek to reduce stormwater runoff and ease downstream flooding in the lower watershed.	041100040606	41.6555, -81.2838	Planning Phase	Yes	No	unknown
7	LSWCD	Lake Erie Bluffs Stream Restoration	Restore channelized and incised stream, restore wetland to reduce sediment delivery to Lake Erie	041100030204	41.778, -81.191	Planning Phase	Yes	No	unknown
8	CRWP	Chagrin River and East Branch Corridor Restoration and Protection Project	Restore the State Scenic East Branch of the Chagrin River and wetland habitat at its confluence with the mainstem of the Chagrin River, stabilize streambanks on the mainstem of the Chagrin River at Daniels Park, remove low-head dam remnants on the mainstem of the Chagrin River at Daniels Park, and preserve land to create a connected corridor of greenspace for wildlife and people along the Chagrin River.	041100030403, 041100030401, 041100030402	41.631018, -81.401431	Shovel-Ready	Yes	Yes	$2,216,000
9	CRWP	Chagrin River and Tinker's Creek Headwater Wetland Protection Project	Permanently protect 56 acres of high quality wetlands and forest at the southwest corner of Brainard and Harvard roads within Orange Village. This project would protect the natural stormwater management benefits of the wetlands for downstream communities and provide crucial greenspace access to residents of Orange Village and surrounding Cuyahoga County communities through public access and future trail development.	041100030402, 041100020504	41.445892, -81.484389	Shovel-Ready	No	Yes	$4,652,078
10	CRWP	Clark Forest Preserve	Preserve 72 acres of old-growth forest, steep ravines, and 5,275 linear feet of Class III headwater streams which flow to the State Scenic Chagrin River along Sherman Road.	041100030402	41.539671, -81.402780	Shovel-Ready	No	Yes	$1,255,000
11	CRWP	Brook Trout Habitat Restoration	This project scope is to expand habitat for the State Threatened Ohio brook trout (Salvelinus fontinalis) in two tributaries to Silver Creek at the West Woods property. The project would help improve habitat and extend habitat through dam remnants removal and in-stream habitat improvements, resulting in a total of 2,500 linear feet of new viable brook trout habitat.	041100030301	41.457104, -81.299061	Shovel-Ready	No	Yes	$200,000
12	CRWP	South Riverview Drive Wetland Restoration	A restoration project to improve functionality and intercept stormwater flow by creating 1-2 acres of floodplain wetland habitat. This project will re-establish ecological function to an aquatic system by restoring wetland habitat. Improved water quality will result by reducing overall discharge volume and peak runoff rate via wetland retention; and through treatment (i.e., settling suspended solids, filtration, and nutrient uptake by plants in the wetland.)	041100030403	41.657064, -81.421499	Shovel-Ready	Yes	Yes	$342,000
13	CRWP	Borac's Landing Land Protection/Restoration	Acquire and permanently protect 10.12 acres of land at a former commerial marina and convert it to a park to support public access and recreation along the Chagrin River (#2 CRWP priority project).	041100030403	41.666369, -81.423000	Shovel-Ready	No	Yes	$416,500
14	TCWP	Owen Street Stream Restoration	This unnamed tributary of Brandywine Creek has numerous impairments from channelization, historic dredging, instream sediment loading resulting in water quality degradation, stormwater degradation, and adjacent urban land use. The entire reach is vertically entrenched, disconnected from an active floodplain, and lacks sinuosity. Streambanks heights average three to five feet throughout the reach due to down cutting and sidecast spoil piles from historic dredging. These issues result in water quality degradation, impacted habitat, and poor channel function. Because of these impairments, currently the habitat value of the stream as measured by the QHEI ranges between 53 and 56; and the bank erosion as measured by the BEHI is between high and very high.	041100020404	41.246747, -81.473931	Conceptual Plan Complete	Endorsed	Might be in a city plan	$225,950
15	ECWP	Cleveland Clinic stream/flood reconnection & fish passage removal	This project proposes removing a small dam and relocating the strean cooridor to provide fish passage, floodplain connection, and prevent excessive erosion.	041100030503	41.506906, -81.500970	Conceptual Plan Complete	Yes		$600,000
16	ECWP	Cleveland Clinic basin retrofit/ Richmond Road dam decommissioning	This project aims to retrofit a currently underutilized basin on Cleveland Clinic Property and provide additional storage or floodplain connectivity. A dam upstream of this basin would be removed or retrofitted if storage capacity is available.	041100030503	41.511084,-81.502086	Conceptual Plan Complete	Update in Progress		unknown
17	ECWP	Mayfair Lake basin retrofit	The project aims to remove an inline stormwater basin outlet structure and re-establish a riparian and wetland corridor.	041100030503	41.557918, -81.502106	Conceptual Plan Complete	Update in Progress		needs updating
18	ECWP	E 185th Spillway	This project will remove the primary barrier to fish migration from the lower lacustuary region of the watershed to the headwaters.	041100030503	41.576833,-81.550366	Conceptual Plan Complete	Update in Progress		$1,152,547-$2,409,854
19	ECWP	Highland Heights Glen Eden basin retrofit	The project will use the regional erosion threshold of 40% of the undeveloped 2-year flow as a design target to help prevent downstream erosion. The design will maintain the current level of service related to flood control. Steel restrictor plates would be placed on the existing outlet and a rock check dam would be added.	041100030503	41.552334,-81.487688	Planning Phase	Update in Progress		unknown

Project ID	Entity	Project Name	Short Project Description (3 sentences or less)	HUC12 Code	Geographic Coordinates of Project	Readiness Status Description (Dropdown Box)	Local or regional plans NPS-IS Plan	Other Community/Utility/Conservation Plan	Estimated Budget
20	ECWP	Mayfield Golf Course stream restoration (6 Phases)	This project proposes 6 phases to restore and stabilize 5,850 feet of West Branch Euclid Creek and a tributary to the West Branch of Euclid Creek on the Mayfield Campus Golf Course using several methods as applicable: creating a low flow channel with floodplain bench, floodplain grading, and stream realignment. Upon completion of all six phases, 10,850 feet (two banks) of poor-quality streambank will be regraded or relocated and stabilized using native plants and bioengineering techniques. Roughly 27 acres of existing riparian forest will be enhanced and treated for invasives, roughly 8.7 acres of rough will be converted to native riparian forest or meadow.	041100030503	41.514064, -81.506537	Conceptual Plan Complete	Yes		$5.5 Million
21	ECWP	I-271 corridor preservation	This project aims to preserve high quality forested riparian and wetland cooridor on private property along I-271 on the East Branch of Euclid Creek.	041100030503	41.579145,-81.449826	Planning Phase	Update in Progress		unknown
22	ECWP	"Aberdeen Creek" preservation	This project aims to preserve high quality forested riparian and wetland cooridor on private property downstream of the Dusty Goldenrod Preserve.	041100030503	41.549540,-81.476659	Planning Phase	Update in Progress		unknown
23	ECWP	Mayfield/Richmond Road GI	This project aims to increase green infrastructure in this highly impervious corridor.	041100030503	41.519889,-81.497183	Planning Phase	Update in Progress		unknown
24	TCWP	Bear Creek Phase II	Altered hydrology and damaged storm water outfalls deepened the stream bed and left steep streambanks. Phase II will repair a storm water outfall, redirect Bear Creek away from overhead utilities, create floodplain wetlands, create a floodplain bench, and restore native riparian vegetation.	041100020504	41.436609, -81.522250	Conceptual Plan Complete	Yes		$597,978
25	ECWP	Progressive Campus BMP retrofits	This project would aim to retrofit quantity basins on Progressive Campus to add water quality features, increase flood capacity and slow flow release to prevent dowsntream erosion.	041100030503	41.564248,-81.446006	Planning Phase	Update in Progress		unknown
26	CSWCD	Bradstreet's Landing Lacustuary Stream Restoration	This project will restore the mouth of Spencer Creek at Lake Erie by creating 3.5-acres of lacustuary wetland habitat, addressing streambank erosion along 800 linear feet of stream, and removing invasive vegetation. Restoring the mouth of Spencer Creek will improve aquatic and avian habitat, increase ecological diversity, and reduce sediment loading to improve water quality.	041100010204	41.482715, -81.867573	Shovel-Ready	Yes	Yes	$560,000
27	CSWCD	Woodpath Basin Wetland Retrofit	This project will create 6-acres of urban wetland by retrofitting an existing detention basin and restoring 1200 linear feet of stream, improving water quality of a highly urbanized watershed and creating riparian and wetland habitat critical for aquatic and terristrial wildlife.	041100010204	41.435641, -81.909548	Shovel-Ready	Yes	Yes	$900,000
28	DBWP	Doan Estuary Habitat & Daylight		041100030504		Conceptual Plan Complete	Yes		
29	DBWP	Check Dam Removal in Rockefeller Park	This project will restore a segment of Doan Brook in historic Rockefeller Park with failing wall segments and check dams that impede fish passage. The project would repair failing walls to reduce erosion into the brook, modify the check dams to promote fish passage, create and improve in-stream habitat, and reduce sediment and nutrient input into the brook by providing floodplain connectivity. Through improvements in both fish and macroinvertebrate assemblages due to improved aquatic habitat, this project will have a positive impact on water quality as assessed by IBI and ICI metric scores	041100030504	41.515904, -81.618043	Conceptual Plan Complete	Yes		$429,596.00
30	DBWP	Sowinski Park Oxbow Wetland Restoration	This project in Sowinski Park would retain historic stream walls that can remain with in-stream modifications to improve habitat, replace failing wall segments with natural streambank armoring, and create an oxbow wetland to reduce turbidity and sediment loads.	041100030504	41.525759, -81.626492	Conceptual Plan Complete	Yes		$397,260.00
31	TNC	Kuroswki	The goal of this project is to improve aquatic, wetland, and upland habitat in watersheds of two high quality tributaries to the Cuyahoga River. This project would reforest a 70 acre agricultural field currently in managed as a hay pasture. In addition, this project would restore vernal pool wetlands and 2,674 feet of headwater stream channel.	041100020405	41.258, -81.589	Conceptual Plan Complete	No	No	$435,000
32	TNC	Brandywine Country Club	Restore 10,000 ft of stream through natural cahnnel design, floodplain creation, and riparian vegetation establishemnt as well as creation of 5 acres of floodplain wetlands and reforestaiton of 100 acres of upland buffers	041100020405	41.234, -81.544	Conceptual Plan Complete	No	No	$3,600,000
33	TNC	Cull Field	This project consists of a 20-acre reforestation and a 12-acre wetland enhancement within Cuyahoga Valley National Park. The site has potential to be high quality habitat and to improve water quality because it is in floodplain of the Cuyahoga River in CVNP.	041100020405	41.253, -81.55	Conceptual Plan Complete	No	No	$350,000
34	TNC	Lucia Nash preserve addition	Protect wetland and stream habitats in and around Lucia Nash preserve and Cuyahoga Wetlands.	0411000201	41.42778°, -81.18139°	Planning Phase			$550,000
35	TNC	Burton Lake Wetland Restoration	faciliatate wetland regeneration post dewatering of Burton Lake. Reduce threat of invasion of exotic species to Burton Wetland Complex.	0411000201	41.42778°, -81.18139°	Planning Phase			$350,000
36	TNC	Chaffee Road Stormwater Wetland	Restore wetland hydrology to tiled and ditched wetlands and add stormwater capacity with control structures	041100020505	41.3195076, -81.5749330	Conceptual Plan Complete	No	No	$475,110
37	TNC	Eaton Estates Basin Retrofit		041100020505	41.3305528, -81.5461287	Conceptual Plan Complete	No	No	$323,600
38	TNC	Sagamore Property Stream and Wetland Restoration	Stabilize streams and restore natural channels impacted by historic agriculture and impoundments on headwater streams that flow into CVNP.	041100020505	41.3395648, -81.5781648	Conceptual Plan Complete	No	No	$1,527,500
39	RRWC	Cuyahoga County Fairgrounds Stormwater Wetland	Install 5 acre stormwater wetland to treet runoff from fairgrounds before entering Abram Creek.	041100010203		Conceptual Plan Complete	pending	No	$2,600,000
40	RRWC	Cambridge HOA Basin Retrofit	Retrofit flood control basin to treat for water quality and Qcritical to prevent downstream erosion. Fix erosion at basin inlet.	041100010202		Conceptual Plan Complete	pending	No	$380,000
41	RRWC	Healey Creek Restoration & Floodplain Reconnection	Restore stream habitat and floodplain conection along 3000 LF Healey Creek in Brunswick's North Park and neighboring porperties.	041100010201	41.268661, -81.812749	Conceptual Plan Complete	pending	No	$856,212
42	RRWC	Goodyear Creek Restoration		041100010101		Conceptual Plan Complete	No	Yes - Brunswick stormwater plan	$500,000

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43	ECWP	Beachwood Fire Station Retrofit	The project will use the regional erosion threshold of 40% of the undeveloped 2-year flow as a design target to help prevent downstream erosion. The design will maintain the current level of service related to flood control. Steel restrictor plates would be placed on the existing outlet and a rock check dam would be added.	041100030503	41.487255,-81.497169	Conceptual Plan Complete	Update in Progress		$20,000
44	ECWP	Richmond Heights Community Park Swale Storage Retrofit	This project seeks to retrofit an existing swale with a forebay, flow splitter and offline rain garden (or constructed wetland for flood storage), and some vegetated check dams along the channel/ditch.	041100030503	41.558211,-81.492913	Planning Phase	Update in Progress		$40,000.00
45	ECWP	Lyndhurst Church of Good Sheperd DePave	The project would either directly reduce impervious area through removal of pavement, or effectively reduce the impacts of imperviousness by directing runoff from the parking lot through a bioretention basin.	041100030503	41.502599,-81.510728	Planning Phase	Update in Progress		unknown
46	TCWP	Glenwillow Stream & Floodplain Wetland Restoration	Channelization, urbanization, and habitat degradation altered the ecological function of this stream, causing high temperatures and eutrophication. The four-phase project aims to provide ecological lift, increase habitat, and decrease erosion without undermining the nearby landfill.	041100020504	41.356175, -81.471923	Conceptual Plan Complete	Yes	AOC management action list	$1,560,195
47	Bluestone	Euclid Waterfront Improvement watershed restoration	At three upland locations on Euclid's Lake Erie erosion control/public access project site: Restore filled-in small ravines (3.4 a) and wetlands (1.1 a) valuable for hydrological, ecological and aesthetic function. Reforest 10 acres cleared during construction with species resilient to climate change.	041100030502	41.616567 -81.517294	Planning Phase	Yes	Euclid Waterfront Improvements	$600,000
48	Bluestone	Dugway Brook Stream and Lacustrine Estuary Habitat Restoration	Restore 2,000 linear feet of Dugway Brook from culvert exit (at Lakeshore Boulevard) to mouth (at Lake Erie). Remove artificial structures; reestablish meanders; rebuild estuary marsh habitat.	041100030503	41.552760 -81.609729	Conceptual Plan Complete	Yes	Nine Mile Creek Restoration (Section 319-funded project)	$1,967,900

Summary of Collaborative Accomplishments

Since July 2018, Collaborative organizations have accomplished the following:

1. Engaged volunteers that have donated 8,515 hours of service to stream cleanups, riparian plantings, rain garden maintenance, storm drain marking, or invasive species control.
2. Protected 832.3 acres of land, including 202.75 acres of wetland through conservation easements, land acquisition, or adoption of riparian/wetland setbacks.
3. Protected 57,685 linear feet of streams protected through conservation easements, land acquisition, or adoption of riparian/wetland setbacks.
4. Restored 9,270 linear feet of stream or Lake Erie coast and 6.8 acres of wetland.
5. Enhanced 57.15 acres of land and 8,075 linear feet of stream through plantings or invasive species removal, including 17.42 acres of wetland.

In addition, participating organizations have leveraged over $48 million for natural area protection and restoration, stream corridor enhancements, trail development, green stormwater infrastructure, and regional technical services since 2016.

"Equitable Water Future – Cleveland" by the Cleveland Water Equity Task Force