

# Euclid Creek Watershed Update

Issue 47  
2022

## New faces and new milestones in the Watershed

Cuyahoga Soil & Water Conservation District welcomed a few new faces in 2022, including a new Euclid Creek Watershed Coordinator.

Kate Chapel grew up in the Chagrin River watershed before pursuing a bachelor's degree in botany at Miami University in Oxford, Ohio. From there, she earned a master's in conservation ecology at the University of Michigan, Ann Arbor where she discovered a love for watersheds and has been working for watershed-based organizations ever since. She's excited to join the team at Cuyahoga SWCD to make a positive impact on the Euclid Creek watershed. She'll also be one of the instructors for the Master Rain Gardener Program.



## Newsletter Content

Friends of Euclid Creek  
Updates... pg. 2-3

Cleveland Metroparks  
Updates....pg. 4

Euclid Creek Water Quality  
Monitoring...pg. 5

Project Updates...pg. 6-7

## Master Rain Gardener comes to Euclid Creek

The Northeast Ohio Master Rain Gardener Program is a joint partnership with CSWCD, Lake SWCD, and Chagrin River Watershed Partners.



Master Rain Gardeners can earn their certification by completing the course and building a rain garden. Experienced instructors will provide customized feedback which will enable students to design and install a rain garden of their own - and serve as the neighborhood rain garden expert! Course topics will include site assessment, soil analysis, design, construction, plant selection, mulching, and maintenance.

We will be hosting an in-person program at the South Euclid Community Center in March 2023. Look out for registration details on the CSWCD website ([cuyahogawcd.org](http://cuyahogawcd.org)) and the NEOMRG website ([neomasterraingardener.org](http://neomasterraingardener.org)).



Monday Meetup with Cleveland  
Metroparks at Greenwood Farm



Richmond Heights Tree Planting

## Join Us

Each season brings different events like invasive species management, tree plantings, garden maintenance, data collection, and more. There's something for everyone at:

[euclidcreekwatershed.org/events](http://euclidcreekwatershed.org/events) and [friendsofeuclidcreek.com/events](http://friendsofeuclidcreek.com/events)

For questions or to be added to the monthly e-news, contact Watershed Coordinator, **Kate Chapel**, at either [kchapel@cuyahogawcd.org](mailto:kchapel@cuyahogawcd.org) or 216-503-1257.



## Friends of Euclid Creek President's Letter *by Kelly Butauski, FOEC President*

Dear Environmental Friends,

Are you feeling connected? To family, friends, colleagues? Are you spending too much time on phones and computers, looking and reading, texting and zooming? It is an easy habit to get into. We rarely seem to have the time to look around beyond the computer and our lists of things to do. Even though many of us are not feeling very connected these days, keep in mind there is one place we are always connected. **That is in "nature,"** the world of living things. This world connects in many ways.

Pollinators help flowers produce seeds to feed birds. Seeds produce food to feed us. The tiniest insect feeds a bigger insect, plants feed caterpillars, and caterpillars feed baby birds. Birds spread seeds around and eat the insects that eat our food. Predators eat smaller creatures to provide balance. Scavengers clean it all up. It goes on and on, deeper and deeper.

So what is our role in this complex web of connectedness? **We can be a good connection** by ridding the environment of invasive plants that take over valuable land; by keeping the soil and water healthy; by planting native plants and trees that provide habitat and food for nature's creatures. **Realize we are creatures too.**

In addition to food and clean water and air, nature gives us yet another gift. It is peace and solace when in the presence of nature in a healthy environment. This can sustain us **mentally, physically, and spiritually.** How many of you have felt the deep connection and peace when sitting under a tree, by a pond, or relaxing in your own back yard? That is because we are a part of nature.

Friends of Euclid Creek volunteers have been working **for more than 20 years** to protect the Euclid Creek watershed environment that provides so many gifts of nature. We work to help people understand what they can do to connect with and protect it. I hope you can join us in this worthy quest. You can start by being fully present in the outdoors for your well-being, and then take some Simple Actions for Our Environment Every Day. To learn more go to [friendsofeuclidcreek.com/education](http://friendsofeuclidcreek.com/education).

Stay connected and enjoy,

Kelly Butauski | Friends of Euclid Creek, President

**Friends of Euclid Creek** is looking for new board members and volunteers. If you would like to become involved with an active group of environmentally-concerned people like yourself, contact us at [friendsofeuclidcreek@gmail.com](mailto:friendsofeuclidcreek@gmail.com). Sign up for our email updates at *Contact Us* on our website.

**Friends of Euclid Creek** is an all-volunteer environmental 501(c)(3) organization. For 20 years, we have been educating on how to improve environmental problems in the community. Simple actions such as foregoing chemicals in the yard and home, picking up litter, and reducing plastic use can make a difference. From practicing simple actions to helping to restore wetlands, there is a role for everyone.

Be sure to visit us at [www.friendsofeuclidcreek.com](http://www.friendsofeuclidcreek.com)



FOEC uses our EnviroScape watershed model at the Cleveland Metroparks' Euclid Beach music event.



FOEC joins Euclid Public School teachers to hike the Euclid Creek Reservation.

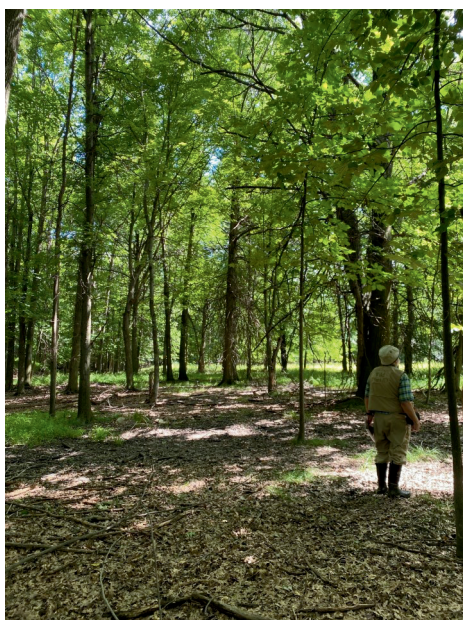


## Deer Exclosure Study Finds Surprises by Brian Gilbert, FOEC member/conservation committee

The **Conservation Committee** of the Friends of Euclid Creek is in the early stages of a study of the floral diversity on the **Dusty Goldenrod Preserve**. The study was initiated last year for two reasons.

First, monitoring the biological diversity at the Preserve is one of the main responsibilities of the FOEC. And second, we were intrigued by the lack of mature glossy buckthorn. We hypothesized that the deer may be keeping the buckthorn under control, thereby allowing the many other plants to thrive. Creating the deer exclosures was our attempt to learn if that was true.

Last year, the first year of the study, we focused on four deer exclosures installed late in 2020 in the wet meadow habitat near the center of the Preserve. This year, we moved two of the exclosures from the wet meadow to different habitats and installed one totally new exclosure so that **now there are five exclosures**: two in the wet meadow (where all of the rare plants are located) and one each in the three other habitats; the wooded swamp, the shrub swamp and the wet forest. Volunteers from the Committee are monitoring the exclosures weekly.



Brian Gilbert explores a wooded swamp at the Preserve.

inside the deer exclosure were much taller and more robust than the dusty goldenrod outside the exclosure.

Even though we are in the early stages of what will undoubtedly be a multi-year effort, we have had a few surprises. From last year's research we learned that the deer are, in fact, having a **noticeable influence on the biological diversity** especially in the wet meadow.

For example, the dusty goldenrod

The density of their stems also showed **a dramatic increase** inside the exclosure. In addition, we have found four different species of goldenrod inside the exclosure.

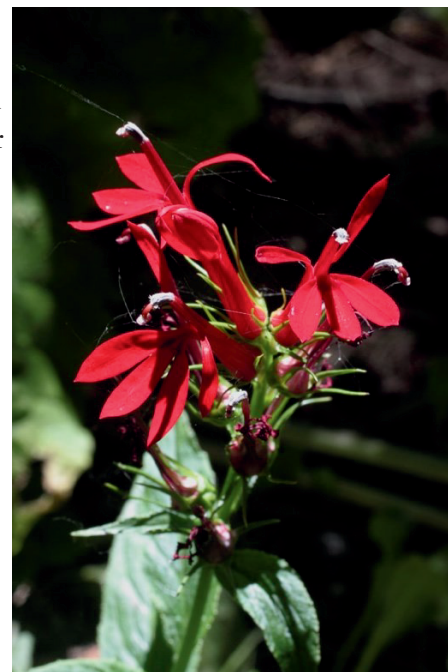
But perhaps the best surprise came in mid-August this summer when we found several cardinal flower plants on the Preserve beside the wooded swamp exclosure within 10 feet of Stream 2.

**Cardinal flower** was not reported as part of the flora at the Preserve in Suneeti Jog's 2003 survey. But we shouldn't be too surprised to find it there because it is a native plant and is known to exist in nearby wild areas such as Wildwood Park. What is a surprise is that it has appeared without being introduced by man.

### **It's a complete volunteer.**

It's a surprise that it's the **first native plant** to have volunteered at the Preserve since the original 2003 survey. We've had a few other plants volunteer, but they've all been non-natives and invasive plants, plants we would have preferred not to have on the Preserve. The Dusty Goldenrod Preserve is actually **the perfect place for cardinal flowers**. Their favorite habitats include, along streams, springs, swamps, and low wooded areas.

We hope this just the first chapter in native plants discovering what a wonderful site the Dusty Goldenrod Preserve is.



Cardinal flower blooming at the Dusty Goldenrod Preserve. Photo courtesy of Brian Gilbert.



## Decompaction to Connection by Elizabeth Hiser, Cleveland Metroparks

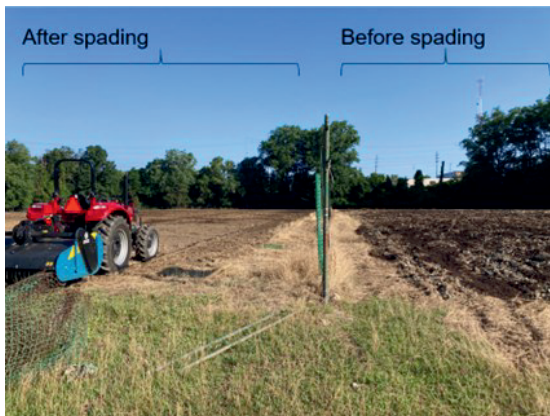
Euclid Creek Reservation has expanded its footprint with the reacquisition of the former Euclid Central Middle School property along Euclid Creek. The location of this site lends itself well to addressing stormwater impacts to Euclid Creek while providing key trail connections for the planned Euclid Creek Greenway which will connect the lakefront at Euclid Beach and Wildwood Park to the southern portions of Euclid Creek Reservation.



Center Middle School site on March 3, 2021

The highly anticipated restoration efforts have begun in earnest this summer. With funding from the Great Lakes Restoration Initiative, Cleveland Metroparks has remediated 5.5 acres of highly compacted soils that were formerly home to the Euclid Central middle school athletic fields. The remediation is done through a process called soil decompaction. This involves three steps:

- Spread 2-3 inches of compost across the soil (750 Cubic Yards!)
- Subsoil the soil and compost layer with a ripper (a tractor attachment built to aerate and loosen soil while leaving organic matter at the soil top)
- Decompact the subsoiled area with a spader (a tractor attachment used to break up compacted soil layers and to mix the soil thoroughly)



Decompaction work before and after spading

All of this work has been done by Cleveland Metroparks Natural Resources staff with insight from Dr. Stuart Schwartz, Senior Research Scientist at University of Maryland, Baltimore County (UMBC). Dr. Schwartz's prior work and research in this area has shown that this decompaction technique can reliably support deep dense tree rooting and is effective for stormwater runoff reduction. Dr. Schwartz will be monitoring the effectiveness of the soil decompaction technique with a control station and remediation station set up to monitor the soil's response to precipitation events at different depths.

The restoration has begun with the soils and next we will be planting native perennials and 1,220 trees. Cleveland Metroparks will work with a goose control operation to let the native seed establish as the site has been very popular with a large flock of Canadian geese. The majority of the trees will be strategically placed inside a large fenced area to protect them from deer pressure as they establish.

Stay tuned for the results from our soil surveys, volunteer opportunities to help with planting this fall and spring 2023, and connecting to the space through trails next summer!



Soil sampling sensor installation



Dr. Schwartz testing the mobile application that will monitor soil response to precipitation every 15 minutes.



## Water Quality Monitoring Program Updates By Meg Hennessey, Cuyahoga SWCD

The volunteers in the [Euclid Creek Stream Monitoring Program](#) have been hard at work this year, testing over a hundred samples throughout the watershed by September 2022.

These dedicated citizen-scientists gathered data on a wide range of issues, adding to our knowledge of how Euclid Creek is affected by different land uses. The information gathered can tell us how the streams are affected by winter levels of road salting, how our stream has coped with greater park use due to travel restrictions, how the stream responds to restoration projects and what kind of wildlife habitats are available for aquatic life in Euclid Creek.

In June a celebration was held to thank our volunteer monitors for all their efforts tracking the health of our local streams across the Euclid Creek, Rocky River, and Cagoon-Porter watersheds. [CSWCD](#) and [Cleveland Metroparks](#) discussed the trends in water quality found and the planning efforts going on in each watershed. Volunteers who have sampled twelve times, or one year, received a hat identifying them as a volunteer monitor to wear when out in the field. If you're interested in getting one of these hats check the Sign-Up Genius for a date you can sample!

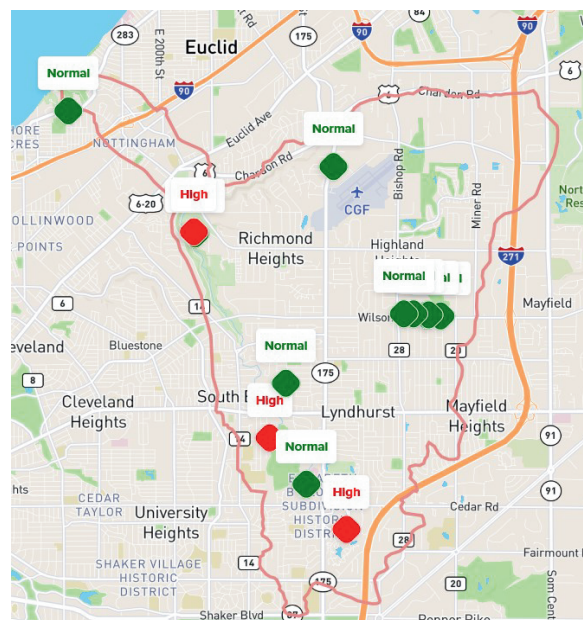
Thanks to our partners, the [Watershed Volunteer Program](#) of [Cleveland Metroparks](#), for helping fund and oversee this program. In particular, Citizen-Scientist Assistant [Breoni Turner](#) has led multiple trainings for volunteers throughout the year and remains a vital part of supporting our volunteer monitors. Only one training session is needed to join our program and sample on your own schedule! Email [Meg Hennessey](#) at [mhennessey@cuyahogawcd.org](mailto:mhennessey@cuyahogawcd.org) for details.

**Thank you to all our 2022 monitors who have dedicated their time to Euclid Creek this year!**

Neil Barrett  
Kirsten Bull  
Clark Button  
Steve Daly  
Claire Deaner  
Kipp Dietrich\*  
Lonnie Dittrick\*  
Sue Diehm  
Rebecca Fuller  
Kevin Harrison

John Hurst  
Erika Kahn  
Elizabeth McDonald\*  
Jeanne & Stuart Pearl  
Eric Rohr\*  
Howard Schemmel  
Mark Tyron  
Patricia Tsevdos  
Esther Trepal  
Fred Weber

\* Denotes new Monitors



Map of most recent volunteer salt level monitoring observations



Volunteers learn to take a sample with the water testing equipment.

### Water Reporter

Interested in our results? Anyone can find our testing results through our [Interactive Data Map](#). This online map color-codes data based on whether the results meet water quality standards.

Users can click on specific stations and see which water quality parameters are high or low, browse through past results, and see how parameters trend throughout the watershed.

Go to [EuclidCreekWatershed.org](http://EuclidCreekWatershed.org), click on [Euclid Creek Volunteer Monitoring Program](#) to check it out.



## East 185th Spillway Project by Russ Brandenburg, United States Army Corps of Engineers

The Spillway project is located at the East 185<sup>th</sup> area of Euclid Creek and is part of the US Environmental Protection Agency's (USEPA) **Cuyahoga River Area of Concern (AOC)**. The USEPA Great Lakes National Program Office (GLNPO) is providing funding to complete construction of the project. The US Army Corps of Engineers (USACE) Buffalo District is designing the fish passage project and will oversee project construction. The Northeast Ohio Regional Sewer District (NEORS) is currently working to acquire real estate and easements. Additionally, NEORS will be responsible for long-term operation and maintenance, once construction is complete.

The Euclid Creek Spillway is **the last structure remaining** in the lower Euclid Creek contributing to the Fish and Wildlife Habitat Beneficial Use Impairment (BUI) in the Cuyahoga River AOC. Habitat restoration of the Euclid Creek Spillway was identified in the Euclid Creek Watershed Action Plan endorsed by the Ohio Department of Natural Resources (ODNR) in 2006. Restoration measures for this project entail hydrological stabilization, via installation of a fish passage system, which **will result in diverse fish migration**, fish spawning, and rearing and refuge habitats for species including Smallmouth Bass, Largemouth Bass, Central Stoneroller, and Emerald Shiner.

Project benefits include access to **18 river miles of previously inaccessible stream** to native fish, enhanced estuary habitat at Lake Erie, invasive species removal, and native riparian vegetation restoration. This project also directly supports the removal of a beneficial use impairment (BUI) in the Cuyahoga Area of Concern.

Currently, USACE is working to finalize the detailed design report. Once complete, USACE will begin developing plans and specifications for the project. The NEORS is continuing real estate acquisition. Both activities are estimated to be finished by early 2024; with an anticipated construction contract award by late 2024. **Construction is estimated to be finished by 2026.**

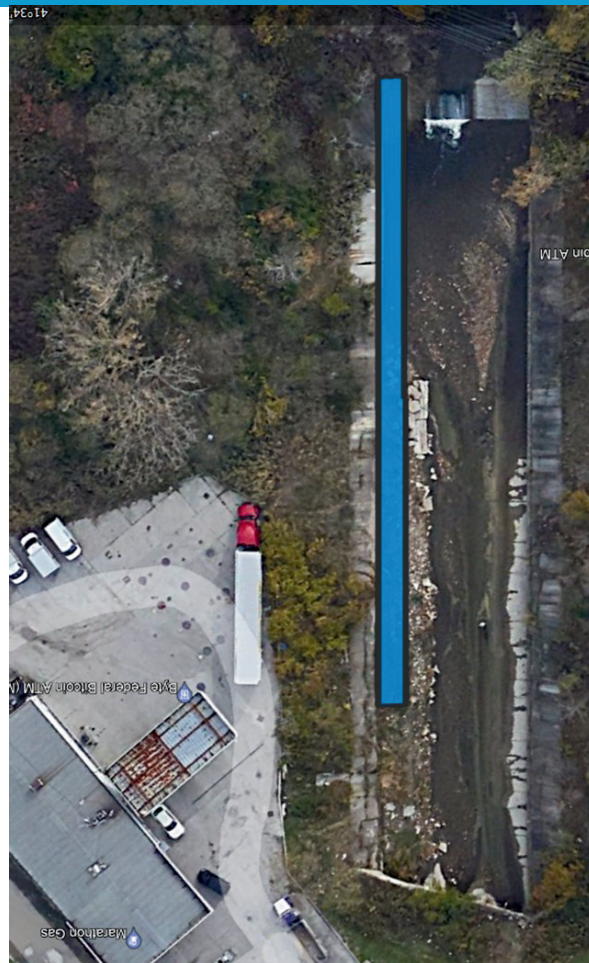


Photo showing where the future fish passage will be situated within Euclid Creek Spillway.

## The Cuyahoga AOC

*Bringing 1 river, 21 subwatersheds, and 10 miles of Lake Erie shore back to health*

The lower 46.5 miles of the Cuyahoga River, including all the tributaries that drain to that section of river, and the adjacent Lake Erie shoreline and its direct tributaries, comprise the Cuyahoga River Area of Concern. The AOC begins at the head of the Gorge Dam pool in Akron/Cuyahoga Falls, ends at Lake Erie, and includes the shoreline from the western Cleveland border to Euclid Creek on the east.

You can learn more about the Cuyahoga AOC and what steps the Advisory Committee is taking to get projects on the ground at [www.cuyahogaoc.org](http://www.cuyahogaoc.org).





# CHALET SWMP Study by Mike Blair, NEORS

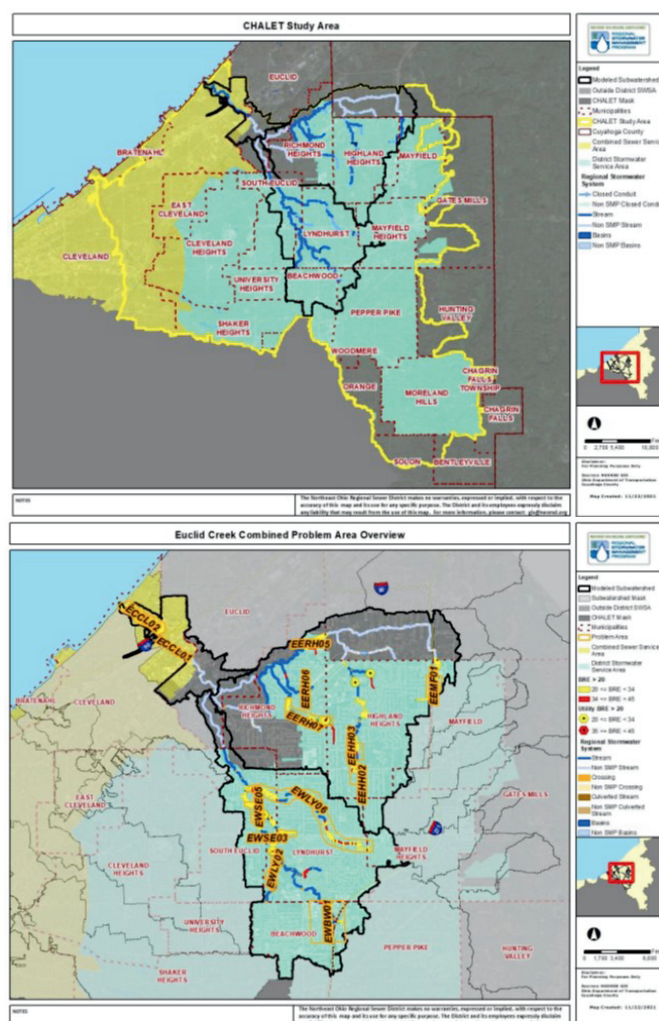
For the past several years, **the Northeast Ohio Regional Sewer District** has been working with our community members and watershed partners to develop Stormwater Master Plans (SWMPs) for each of the watersheds within our stormwater service area (SWSA). These four major watersheds include the Rocky River, Cuyahoga River, Chagrin River, as well as a grouping of smaller streams called the Lake Erie Direct Tributaries, one of which is **Euclid Creek**.

The SWMPs serve as a mechanism for us to address the needs of the regional stormwater system (RSS) and the encompassing watersheds. The RSS is the system of assets, including open streams, crossings, culverts, in-line basins and dams, that receive approximately 300 acres or more of separate stormwater drainage, and serve to convey stormwater within our SWSA. One can think of the RSS as **the watershed highway system**. While we manage the RSS, the District does not own the RSS assets (with the exception of Lakeview Dam). As a result, we rely on the cooperation of our community members, watershed partner groups and individual property owners in order to conduct maintenance or implement projects to address issues of flooding, erosion and water quality in our SWSA.

The Chagrin River and Lake Erie Direct Tributaries (CHALET) SWMP is the last of our four SWMPs and encompasses 24 subwatersheds including the Euclid Creek. The CHALET SWMP study area within the Euclid Creek subwatershed itself consists of **15,667 tributary acres** and lies within parts of 10 communities on Cleveland's east side.

During CHALET SWMP study, we worked with our consultant team to inspect all of the crossings, dams, streams, culverted streams, and basins. The results of this inspection allowed us to identify areas of **flooding and erosion**, or that have poor water quality. This in turn has allowed us to devise ways to address these issues and enhance the overall health of streams, through improved water chemistry, fish passage, and habitat.

Within the Euclid Creek subwatershed, the SWMP study has identified 14 problem areas. For each of these problem areas, the SWMP study has provided a recommended alternative to address the issue(s) of concern, with a total design and implementation of **just over 30 million dollars**.



With the CHALET SWMP study results and recommendations in hand, we are continuing to work with our watershed community members and area partners to finance, design, and implement projects within the Euclid Creek subwatershed.

Be sure to follow us on Twitter @neorsd or on our website for information and project updates related to the SWMP study in Euclid Creek.



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## #Lake Erie Starts Here



Watershed Coordinator,  
Kate Chapel  
kchapel@cuyahogawcd.org

## Find Euclid Creek Online!

[www.EuclidCreekWatershed.org](http://www.EuclidCreekWatershed.org)

[www.FriendsofEuclidCreek.com](http://www.FriendsofEuclidCreek.com)

Like 'euclidcreekwatershed' on Facebook

Follow 'ecwatershedprogram' and  
'friendsofeuclidcreek' on Instagram

Follow @EuclidCreek on Twitter



## Euclid Creek Watershed Partners

### Friends of Euclid Creek

The FOEC is an **all-volunteer** watershed stewardship organization dedicated to ensuring the health of the Euclid Creek watershed through educational programs and assisting with partner restoration projects.

[FriendsofEuclidCreek@gmail.com](mailto:FriendsofEuclidCreek@gmail.com)



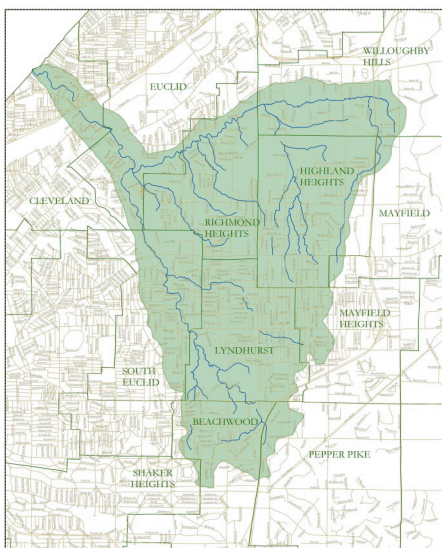
### Euclid Creek Watershed Council

This Council is composed of the **mayor** of each city that participates in the ECWC or their official designee.

They meet three times a year to approve and update the Euclid Creek Watershed Program Work Plan.

### EUCLID CREEK WATERSHED COUNCIL

BEACHWOOD • CLEVELAND • EUCLID  
HIGHLAND HEIGHTS • LYNDBURST • MAYFIELD  
MAYFIELD HEIGHTS • RICHMOND HEIGHTS • SOUTH EUCLID



Legend  
Roads  
Euclid Creek  
Municipal Boundary  
Watershed Boundary



0.0 0.45 0.9 1.8 2.7 Miles

A watershed is simply the land that water flows across or under on its way to any particular stream, river, or lake.

The Euclid Creek Watershed encompasses 24 square miles, 11 communities, and 2 counties (Cuyahoga and Lake).

Our program is directly supported by the efforts of: the Euclid Creek Watershed Council (ECWC), the Friends of Euclid Creek (FOEC) and the Cuyahoga Soil & Water Conservation District (SWCD).

Many thanks to Chagrin River Watershed Partners for their technical support and administration of the NEORS Watershed Service Agreement on behalf of Euclid Creek



If you would like to [receive this newsletter electronically](#), sign up on the website, email, or call the Watershed Coordinator at [kchapel@cuyahogawcd.org](mailto:kchapel@cuyahogawcd.org) or 216-524-6580 extension 1002.

Newsletter printed with generous support of the Northeast Ohio Regional Sewer District through the Euclid Creek Watershed Service Agreement.

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