



# ON THE LAND

SPRING 2020

## Join the Root Flare Army and Help us Help Trees

Thousands of trees are planted each year. Planting a tree is one thing, but successfully growing a tree is another. At the district, we make sure the trees we plant are planted correctly and have a plan to grow so they can succeed. Often, trees are planted too low where the critical root flare is buried and/or soil and mulch are piled around the base of the tree (volcano mulched).

The root flare is the area of the tree where the trunk meets the roots and the supporting roots emerge. It is a critical part of the tree that needs

to be visible for oxygen exchange. A covered root flare weakens the trunk of the tree, encourages girdling (choking) roots around the trunk and leaves the trunk wet so it is vulnerable to infections and diseases.

We need you to help us identify places that have poorly planted trees. We will use this information to provide best practices for trees to the property owner so their trees can thrive.

[www.cuyahogaswcd.org](http://www.cuyahogaswcd.org)  
**Let the Flare See the Air**

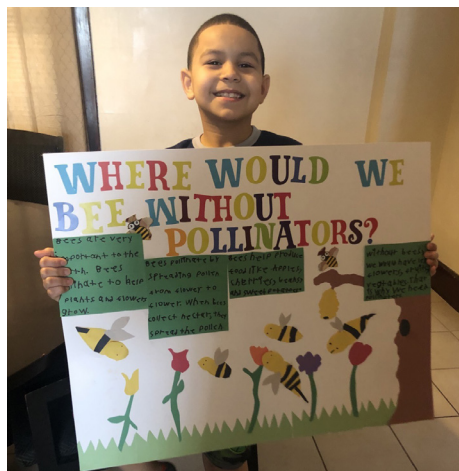


*Top: Poorly planted tree with volcano mulch.  
 Bottom: Properly planted tree with root flare exposed*

## Winners, Winners, Honey Dinners!

Congratulations to the following District winners of our 2020 poster contest: **Grades 2-3:** Ayden Gonzalez from Ms. Holyk's class at Charles Mooney, Cleveland; **Grades 4-6:** Donovan Callahan from Ms. Severson's class at Ruffing Montessori School, Cleveland Heights; **Grades 7-9:** Gianna Condelli from Mr. Lubin's Class at Mayfield Middle School and **Grades 10-12:** Emeraude Katusevanako from Ms. Brown's sustainability club at John Marshall School of Engineering, Cleveland. First place winners will advance to the state competition.

Posters can be viewed at <https://tinyurl.com/ydgavvcf>. Each included the 2020 stewardship theme: Where



*Ayden Gonzalez*

Would We BEE Without Pollinators?

Pollinators form the foundations of a healthy and sustainable future for food and the environment, but in recent years, they have shown concerning signs of decline. Working

to protect and enhance native pollinator habitats is extremely important in stemming the threat to pollinators.

Linking art and creative thinking with science, the annual poster contest provides K-12th grade students the chance to develop and share their thoughts and ideas about natural resource issues. Students are encouraged to use the poster to creatively express their ideas on how conservation improves the environment. It's a great way for teachers to instill in their students an appreciation for the environment and an awareness of the need to protect our natural resources.

# Are you a Citizen Scientist?

At Cuyahoga Soil & Water Conservation District we have watershed coordinators who work with volunteer monitors to collect water quality data in the Cahoon Creek-Frontal Lake Erie, Euclid Creek, and Rocky River Watersheds. These citizens provide important information about the levels of nutrients and sediment in the stream.

When this data is looked at over time, we can start to track trends that help inform local wastewater and stormwater management programs.



*Citizen Scientist, John Hurst*

Water quality and chemistry not your thing? That's ok, here are a few Citizen Science programs that might pique your interest:

- **Earth Challenge 2020** - Use a mobile application to report on insect population, air quality and plastic pollution. Learn more at <https://earthchallenge2020.earthday.org/>
- **EDDMapS Pro** - Website and mobile application for reporting invasive species. Learn more at: <https://www.eddmaps.org/>
- **eBird** - Website and mobile application for reporting bird species. Learn more at: <https://ebird.org/home>
- **Frog Watch** - Work with local chapters like Cleveland Metroparks to report frog and toad calls you hear. Learn more at: <https://www.aza.org/frogwatch>

Learn more about Citizen Science and search for projects that interest you: <https://scistarter.org/>



*Citizen Scientists, Breoni Turner and Keaton Henry*

**Thank you to our 2019 Water Quality Monitors!**

Neil Barret, Mary K. Evans, MaryAnne Hejna, Patrick Henry, Lillian Houser, John Hurst, Caroline Kelemen, Annie Roberto, Frank Skala, Marian Swirski, and Esther Trepal.

## Individual Acts of Conservation

While many of our typical spring programs and activities have been cancelled or postponed due to the novel coronavirus pandemic, there are still opportunities to make a difference for our local, shared environment.

Litter picked up off the street is litter that doesn't get washed into a nearby storm drain and out to the river or to Lake Erie. A tree planted in your yard benefits not just your family, but the entire neighborhood.

At its heart, conservation is about personal decisions and actions made at the individual level that benefit the larger community for generations to come. Through early May, nearly 30 individual acts of conservation had been recorded – can you help us reach 100?



*Picking up trash*



*Composting*



*Removing invasive plants*



*Sharing native plants*

[www.cuyahogawcd.org](http://www.cuyahogawcd.org)  
Click on programs, then  
Individual Acts of Conservation

## Native Seed and Plant Sale

Visit our website at [cuyahogawcd.org](http://cuyahogawcd.org)  
click on Native Seed  
and Plant Kit Sale

Deadline for  
plant kit orders July 17

Native seeds are sold  
year round.

Know what's below.  
Call before you dig.  
Call 811 (in Ohio)



# Cuyahoga SWCD Cover Crops

Cover crops are an agricultural practice that uses a variety of different plant types to manage compaction, soil erosion, soil fertility, water retention, and a host of other functions. Typically cover crops are used in the off-season (later-fall, winter, spring). Like depleted agricultural soils, urban soils are notorious for being highly compacted, nutrient deficient, biologically dead, and sometimes contaminated with legacy pollutants.

Cuyahoga SWCD, in partnership with the Cleveland Foundation, The Ohio Israel Agricultural Initiative, and The Negev Foundation, is studying whether similar cover cropping principles can be used to restore life to heavily impacted urban soils.

The goal of the study is to demonstrate that a cover crop strategy is a viable alternative to enhance urban soils as opposed to the current Land Bank property management protocols, which include importing topsoil to cover recently demolished properties. Importing topsoil

does not address the underlying conditions of the soil, rather it simply adds a veneer of healthy growing soil on top of the existing compacted and depleted soils. The result may look nice, but it is not providing any of the functions that a deeply restored healthy soil could, such as stormwater mitigation or ecosystem health. Perhaps these restored Land Bank lots could ultimately support diverse plant life and become an amenity for the community.

Through the generosity of our partners we were able to purchase a walk-behind tractor which will initially break up the soil, extend the study period to three growing seasons so we can track changes over time, and incorporate Rootella® a mycorrhizal (naturally occurring fungi) inoculant designed to increase plant nutrient uptake and encourage root growth to break up compacted soils.

Cuyahoga SWCD will go through a series of nine plantings and management cycles. The initial planting occurred in August 2019



*Megan brush hogging a cover crop site*

and included extensive brush-hogging of an overgrown site, deep tilling, and planting oat, radish, hemp, and hairy vetch seeds. In October 2019, the patchy areas were planted with cereal rye to minimize erosion during the winter months. When spring finally arrived, the hairy vetch which had grown to about twenty inches was brush-hogged, the sites were lightly tilled to expose the soil, and phacelia natra was planted. This summer will see us sow a crop of sunflower, clover, and oats.

We look forward to assessing these sites and sharing the the data as it comes in. An early indicator of possibly success was the size of the daikon radish observed in March 2020. In a 2012 study, they had only grown to about three inches while this time we were pulling out six to eight inch radishes.

## High School Students Adapt and Succeed

Congratulations to the “Cats in Suits,” the Brecksville-Broadview Heights High School Envirothon team! The BBHHS Bees finished first in the first round of the annual Ohio Envirothon competition.

This round consisted of 20 questions in each of the natural resource topics (aquatics, soil, wildlife, forestry, and a current environmental issue). Daniel Reynolds is the team advisor and the team members are Austin Vollweiter, Timothy Wilczewski, Anthony Petros, Mira Vandelinden and Jasper Jones. Cuyahoga County had a second team, Bedford High School, in the competition.



Adaptation was the name of the game this spring and the Envirothon program was no exception. Normally, each of the five soil and water conservation district areas of the state hold a regional competition in late April, but that also had to be cancelled as it became apparent that bringing together students from different counties would not be safe

even if the schools reopened in time.

The Ohio Envirothon committee used the time to brainstorm a way for all interested teams in Ohio to participate – giving students (including graduating seniors) a chance to work virtually as a team.

The next round will involve virtual presentations by the top six teams in June. Unfortunately, the international Envirothon has been cancelled, but the money raised for state Envirothon will be used to provide nice gifts for the top three overall state winners.

**Good Luck BBHHS!**

# 2019 Annual Report

## Celebrating 70 Years of Conservation



In 2019, the Cuyahoga Soil & Water Conservation District celebrated 70 years. Since its inception in April 1949, the Cuyahoga Soil & Water Conservation District has provided landowner assistance related to conservation matters. Today, with a staff of thirteen professionals, technical assistance is related to erosion and sediment control, healthy soils, stormwater pollution prevention, conservation education, native plants and pollinators, planting and growing trees and stream restoration.

More than 100 programs are offered each year and those programs provide opportunities for learning, engagement and actions that support good conservation. While our core work effort is centered on implementing portions of communities' stormwater management programs, that effort always includes a public element. The Cuyahoga SWCD staff strives to work in tandem with the various publics to listen, learn and then communicate in the most effective manner possible to implement best practices.

Thanks to dedicated staff and partners, and everyone who seeks a better environment, we have never been in a stronger position to assist in the development of a more sustainable community.

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



### Annual Theme:

### Slow It Down, Spread It Out, Soak It In

Cuyahoga SWCD works directly for 53 communities within the county to support meeting each community's requirements under the Clean Water Act. Technical assistance is provided through Public Involvement/Public Education with more than 330 outreach initiatives that include opportunities for community engagement, including events, such as stream cleanups, tree care workshops and plantings, workshops for the public and teachers and much more.



## New Initiatives

### Floating Wetlands

The pilot season of the Floating Wetlands project has turned out to be a successful learning experience. A floating wetland is an artificial platform that allows aquatic emergent plants to grow in water that is typically too deep for them. Their roots grow down into the water creating dense columns of vegetative surface area that allow microbes to grow, forming a slimy biofilm that degrades excess nutrients and toxins that enter our waterways via stormwater runoff.

The floating wetland resided in the City of Westlake's Recreation Center stormwater pond where it helped remove harmful nutrients and provide crucial habitat and shade for the pond's stocked fish population.

In the Fall, the plants were relocated to a stream restoration site in North Royalton.



*Breoni and Jaimie at the floating wetland*



# 2019 annual report

## Green Infrastructure Workforce Development Pilot Program

The Northeast Ohio Regional Sewer District coordinated an effort to train 8-10 people with soft skills and field experience related to maintaining green infrastructure within the County. Cuyahoga SWCD assisted in planning and the field experience. The overall goal was to provide participants the certifications and skills needed and to find jobs in the green infrastructure maintenance field that could provide living wages.



*Exploring green infrastructure by bike*

## Green Infrastructure Bike and Bus Tours

The first ever SWCD bike tour, in collaboration with University Hospitals, as one of the Cuyahoga 50 events, covered approximately thirteen miles with ten stops. Tour participants had the opportunity to learn about pervious pavers, bio-retention, green roofs, soil remediation, stream restoration, infiltration, and more. The bike tour consisted mainly of residents and cycling enthusiasts who did not have a deep understanding of either stormwater management or green infrastructure.

In July, a bus tour was held for SWCD supervisors and staff from around the state who learned about rainwater harvesting, reducing impervious cover, regional scale bio-retention and green infrastructure incentive programs.



*Planting trees for our urban tree canopy*

## Cuyahoga County Healthy Urban Tree Canopy Grant Program

Since its inception, the SWCD has promoted the benefits of trees to help control wind erosion, but also for other benefits, such as aesthetics, clean air, habitat and capturing rain.

Cuyahoga County Executive Armond Budish pledged \$5 million over the next five years to plant thousands of trees across the region and increase Cuyahoga County's tree canopy to help coordinate a program to combat the deleterious effects of climate change and its impacts to residents.

Cuyahoga SWCD is working with the Cuyahoga County Department of Sustainability, the Cuyahoga County Planning Commission, and the Cuyahoga County Board of Health to develop and refine the program to ensure funding is properly distributed.



*Phil Kinson prepping cages for Hawken tree planting event*



## Master Rain Gardeners

Cuyahoga SWCD has taken its rain garden initiative to a new level. Modeled after the Master Gardeners Program, Master Rain Gardener was developed in Washtenaw Michigan and adopted by CSWCD to train people to design and install rain gardens themselves, and to serve as their neighborhood expert. In total, 29 participants completed the initial course and 8 new rain gardens have been installed. Volunteers also adopted rain gardens on public lands and freshened up six existing rain gardens.



## Native Urban Tree Starters (NUTS)

Native Urban Tree Starters is a Cuyahoga SWCD program that directly and actively involves students in the process of restoring the tree canopy in Cuyahoga County.

Students collect acorns, buckeyes, walnuts, maple "helicopters" and other native tree seeds in the fall. Once the collected seeds and nuts have been properly prepared for germination, they are planted in nursery bags or



# 2019 annual report

similar containers. Trees may need to be transplanted to a larger container once germination is assured and roots become established.

By year's end, four schools and 181 students were engaged. The goal is to engage 20 schools in 2020.



*Tree Care and Root Flare Repair workshop*

## **Tree Care and Root Flare Repair**

Thousands of trees are planted each year but many are planted incorrectly. Cuyahoga SWCD teamed up with Mitchell's Ice Cream to host a sold-out workshop about tree care. Planting trees is great but growing trees is much more important. The major point was "let the (root) flare see the air" and "just say no to volcano (mulching)."

## **Willoughby Eastlake School of Innovation**

This restoration effort provided a unique opportunity to engage with the School of Innovation students and teachers. They were involved from design to planning for long-term management of the site on a tributary of Euclid Creek.

The main goals of the project were habitat restoration and flood storage. An undersized culvert was removed, and fish and macroinvertebrate habitat was created once completed.

Students in grades 3-8 were involved in the design and assisted with planting trees, shrubs and live stakes along the creek. Volunteers from



*Installing live stakes along Euclid Creek*

Friends of Euclid Creek, Northeast Ohio Regional Sewer District, and Cleveland Metroparks also assisted. Afterwards there was an increase in the number small fish in the stream. The project was featured at the Ohio Floodplain Managers Conference and on a watershed tour.



*Royalton Farms Stream Restoration*

## **Royalton Farms Stream Restoration**

This project, located on the East Branch of the Rocky River, restored 800 feet of stream channel, reconnected floodplains and provided increased habitat at Royalton Farms in North Royalton.

The project was funded by \$199,000 from Ohio EPA's Section 319 grant program and \$132,000 from the Northeast Ohio Regional Sewer District. The finished project is expected to substantially improve in-stream habitat, channel stability and floodplain access. Beyond that, this project reduces sediment loading to downstream, existing high quality in-stream habitats and begins to address the serious problem with channel instability and habitat degradation

that plagues the uppermost headwater portion of the Upper East Branch.

## **Stopping Sediment to Save Mirror Valley's Brook Trout**

This project, funded by the National Fish and Wildlife Federation-Sustain Our Great Lakes, will help stabilize roadside ditches, road crossings and streambanks to reduce sediment impacts to the habitat of the lone brook trout population in the Rocky River Watershed.



*Euclid Creek stream monitors*

## **Stream Monitoring**

Cuyahoga SWCD salutes the trained volunteer monitors who, regardless of the season, grab their tools and get out to monitor stream health. These volunteers monitor water quality trends. Volunteers do wet and dry weather sampling at select areas on a routine basis.



*Brecksville-Broadview Heights team at Envirothon*

## **Education and Involvement**

Six Cuyahoga County schools (4 new) and 9 teams total entered the 2019 Area 2 Envirothon competition. Brecksville Broadview Heights High School qualified and went to the state competition.



# 2019 annual report



*Teachers can still get S.K. Work activity (3rd grade) and coloring books (Kindergarten) from CSWCD*

Operation Soil Education will help teachers meet the Earth Science standards for soils.



*Teachers explore the Cleveland Museum of Natural History during our week long teachers workshop.*

Teacher workshops are effective in raising teachers' awareness of environmental issues, and providing grade-appropriate materials for the classroom.



*Tree giveaway at the Tree Care and Root Flare Repair workshop*

## **Tree Planting and Care**

Workshops about tree planting and tree care were offered throughout the year. The most successful was the Tree Care and Root Flare Repair workshop. It focused on the ever-increasing and terrible practice of volcano mulching. The staff also coordinated fourteen tree planting events and held an event to distribute 222 tree seedlings. Trees were planted in parks and near streams.



*Big Creek Watershed Cleanup*

## **Stream Cleanups and Garden Maintenance**

Stream clean ups and rain garden maintenance are perennial favorites and hundreds of volunteers helped. Cleanups were held in numerous communities throughout the county.

## **Stormwater and Long Term Operation and Maintenance**

Sun, rain, sleet and snow - the Stormwater Program staff is outside throughout the year inspecting active construction sites to ensure adherence to the approved stormwater pollution prevention plans (SWP3) for each site.

Cuyahoga SWCD works with 17 communities and the County's Department of Public Works. SWP3's for each site are reviewed prior to the start of inspection and the SWP3 is used as a reference for monthly inspections and compliance reporting. In 2019, 134 individual plan reviews were submitted and 118 plans were approved. A total of 322 sites were active at some point during the year. In total, 2206 inspections and reports were completed.

The staff also conducts annual inspections of post-construction stormwater control measures in 19 communities. In 2019, 746 sites were inspected. Staff responded to landowners' questions regarding proper maintenance and other types of technical assistance.

## **Natural Resources Protection**

The Blueprint to Urban Agriculture is online and continues to be updated. Grants were received from the Ohio Israel Agriculture Initiative, Cleveland Foundation and Bayer to demonstrate how soils may be improved with cover crops and pollinator protection. Cuyahoga SWCD entered into agreements with the Cleveland Land Bank to secure vacant lots for project implementation. Three different lots were planted in the fall.

## **Volunteers**

Programs and initiatives designed by staff would not be possible without the support of our communities, board members, watershed friends groups, students, stewardship organizations and the general public. Volunteers donate hundreds of hours and their commitment is priceless!

## **Board of Supervisors 2020**

Cuyahoga SWCD is appreciative of the many volunteers that assist us in our efforts, especially our Board and Associate Board Members: Sherri Lippus, Ruth Skuly, Howard Maier, Caroline Kelemen and Draye Lutton; Kathleen Bradley and Whitney Long Jones

## **Staff 2019**

Janine Rybka, Jared Bartley, Brent Eysenbach, Elizabeth Hiser, Amy Roskilly, Jaimie Johnson, Jacki Zevenbergen, Carla Regener, Kelly Parker, Justin Husher, Megan Smith, Chris Vasco, Patrick Connolly, and Colleen Berg (AmeriCorps Member)



**CUYAHOGA SOIL & WATER  
CONSERVATION DISTRICT**

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Cleveland, OH  
Permit No. 3666

# The Crappiest Dog Photo Contest

Let's face it.  
Sometimes dogs look weird,  
especially when they poop.

## We celebrate that!

Take the pledge, send us a  
photo of your dog dropping a  
deuce and tell us about your  
dog's weird poop behaviors.

Every dog who enters gets a  
bandana that says "this is a  
nudge to clean up my fudge."

Contest runs from Memorial  
Day to Labor Day.

There will be prizes!



*Buckeye - Photo by Greg Murray*

[www.cuyahogaswcd.org](http://www.cuyahogaswcd.org)  
**Crappiest Dog  
Photo contest**

**Pledge to Doo Your  
Doody and Pick up  
the Poopy!**

There are 90,000 registered  
dogs in Cuyahoga County  
alone.

A dog poops an average of  
two times a day. That is 45  
TONS of dog poop a day.  
Holy crap!

Take the pledge and receive  
a bandana for your pup!

[www.cuyahogaswcd.org](http://www.cuyahogaswcd.org)  
Pledges