

RECAP OF 2021

As we come to the close of another year, we want to share with you some of our accomplishments for the year and thank you for helping to make them happen. In this newsletter, we update you on the completion of the stream restoration project along the Stickney Branch of Big Creek, and on two green infrastructure projects that were funded for construction in 2022. As concerns about COVID had lessened, we were able to re-engage with the community through our annual clean-ups and outreach programs. Here, we review this year's stream monitoring programs with local schools and our biennial Trails & Greenways Conference held in June. And, in a follow-up to an earlier article about storm and wastewater, we give additional examples of stormwater control measures and provide info about where you can learn more.

The Board and staff at Big Creek Connects are looking forward to increasing our capacity for Big Creek projects and programs in the year ahead, as we strengthen our relationship with West Creek Conservancy and other partners. And as always, we look forward to your ongoing support.

ART HOUSE GREEN CAMPUS

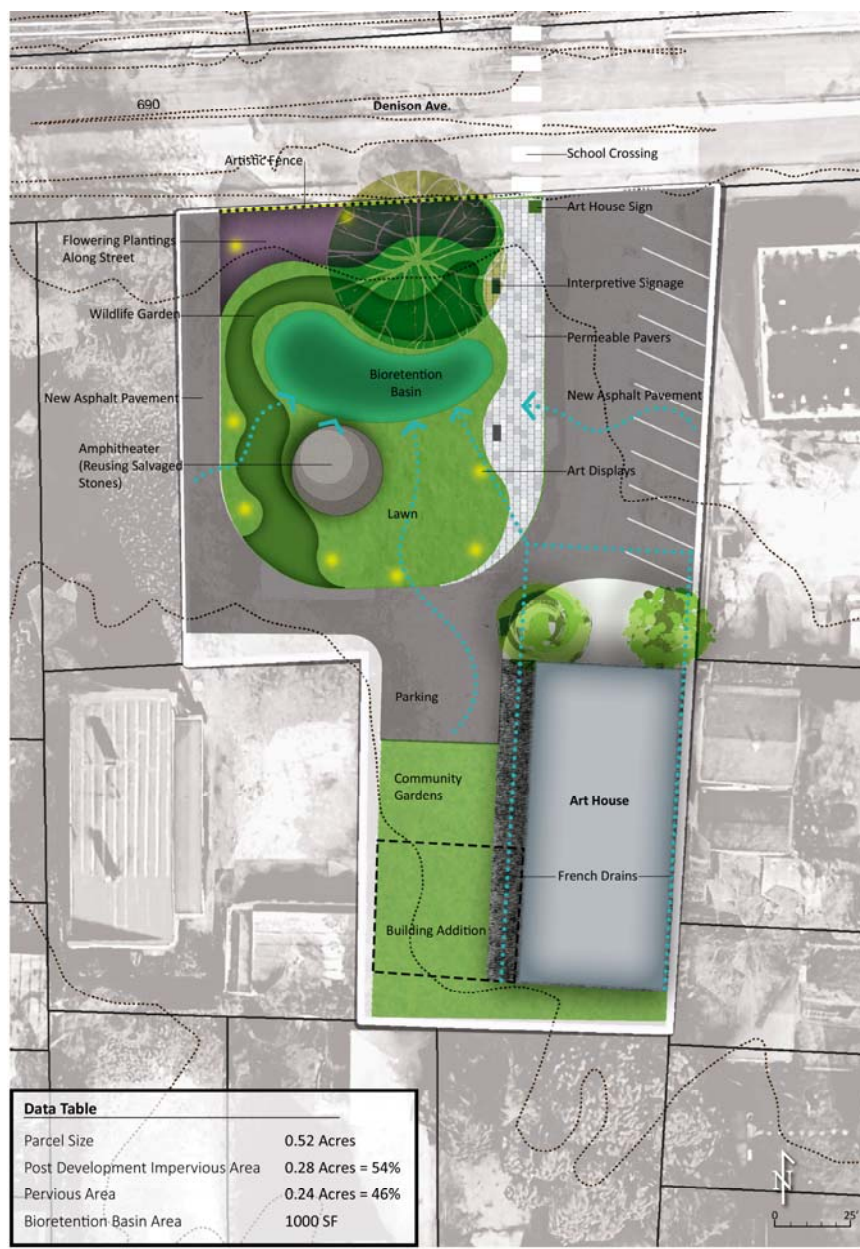
This fall, the Art House Green Campus project was awarded a Green Infrastructure Grant from the Northeast Ohio Regional Sewer District. Art House, Inc. is a non-profit arts center located on Denison Avenue in Cleveland's Brooklyn Centre neighborhood. Big Creek Connects asked West Creek Conservancy to assist with administering the \$249,880 grant. Art House, in partnership with BCC and WCC selected project consultant AECOM to assist with incorporating green elements into Art House's initial planning study for an Art Park.

The project will dramatically transform the site to support art education programming for children and the community and provide neighborhood beautification, as well as reduce stormwater runoff to the sewer system. The site will be graded so runoff will flow into a bioretention basin near the center of a landscaped area that will include a small stage with open space for seating. In 2020 the community was asked to provide input on the concept plan before submitting the grant application. The plan (see next page) will be further refined with additional community input before construction takes place during the summer and fall of 2022.



Existing
Art House
campus.

Concept plan for
Art House Campus
Green Infrastructure
project



Art House Green Infrastructure Garden - Concept Plan

AECOM

STICKNEY CREEK RESTORATION

Stickney Creek's eroding streambanks and adjacent trail in Brooklyn's Veterans Memorial Park has been restored with the creation of a vegetated floodplain, improved habitat, and new recreational trails. The project is the result of several years of watershed planning and advocacy by Big Creek Connects for the stream restoration with the support of the City of Brooklyn. BCC asked West Creek Conservancy to assist with property easements, grant administration and project management.

Project consultant Biohabitats was chosen for the landscape design. A \$300,000 grant was awarded from the Ohio EPA with a \$461,000 match from the Northeast Ohio Regional Sewer District for the stream restoration. Additional funding was acquired by the city through an ODNR Recreational Trails Program grant to enhance neighborhood connections to the park in 2022 and complete a trail loop with a new footbridge across the creek. The restoration was also catalyst to a \$1.2 million Clean Ohio grant to WCC that leveraged local funds for a total of \$2.1 million to protect 65 acres in Brooklyn and Parma that includes 2.5 miles of stream channel and 10 acres of wetland. The public is encouraged to visit Memorial Park to enjoy the naturalization and scenic beauty of the restored creek.

See photo on next page.

BARRIO COMMISSARY GREEN CAMPUS

Another Green Infrastructure Grant project awarded this fall is the Barrio Commissary Center Green Campus project. The Commissary, or Distribution Center, services the popular Barrio Restaurants. Again, Big Creek Connects partnered with West Creek Conservancy, who will administer the \$249,740 grant. Environmental Design Group was selected as the design consultant. Construction will begin in the spring of 2022 with a completion date before the year's end. The project will include bioretention, pervious pavement, an above ground cistern and underground storage to control stormwater entering the sewer system. Barrio recently acquired the large vacant parcel to the south of their distribution center where most of the green infrastructure will be located. A stockyards era building in poor condition was demolished and the site was cleared by the City of Cleveland before Barrio made the acquisition.

The underground storage will capture run-off from the parking lot and be used for washing Barrio's trucks. Runoff will be captured from the distribution center's roof and stored in the above-ground cistern for use in watering a garden for food-grade produce. The garden, bioretention, other landscaping elements, and interpretive signage will front the W. 65th streetscape as an attractive neighborhood feature.



View from West 65th Street of existing Barrio Commissary site

Below, Brooklyn students assist with plantings for the Stickney Creek Restoration Project in June 2021 (see previous page)



SCHOOL STREAM MONITORING PROGRAM

In May of this year, water quality demonstrations were given to students in the courtyard at Cleveland's Rhodes School of Environmental Studies. As concerns about COVID and its spread lessened, students were able to return to the field to resume hands-on study of local streams. In its eighth year, the Big Creek Stream Monitoring Program, funded annually by a General Motors Community Impact Grant, held two on-site stream monitoring events.

In June, Brooklyn School's 4th grade students visited Brooklyn's Veterans Memorial Park to monitor the water quality of Stickney Creek, a tributary to Big Creek, during a half-day program. The creek is the site of recent restoration work to its streambanks with the creation of floodplain habitat where the students were able to assist with plantings. (See related article) With guidance from the GM Parma Plant's environmental "E-team" and Northeast Ohio Regional Sewer District (NEORS) staff, the students also collected, sorted, and studied water samples for their physical, chemical, and biological properties.

In early October, program partners worked with students from Maple Heights High School during a full-day program. The program was held in Big Creek Reservation's Memphis Picnic Area where the East and West Branches of Big Creek converge. Samples of the two branches of the creek were collected, analyzed, and compared for their various properties. The students were guided in their study by GM's "E-Team", and NEORS and Cuyahoga Soil & Water Conservation District staff. The students were also taken on tours within the reservation by Cleveland Metroparks and Cleveland Museum of Natural History staff to learn about natural vs man-made environments and watershed stewardship.



Brooklyn students studying water bugs (foreground) and water chemistry (rear) during June 2021 stream monitoring event

To conserve, enhance, and bring recognition to the natural and historic resources of the Big Creek Watershed and develop a recreational trail network that connects these resources to each other and the community.

This is the first year the program included a school outside of the Big Creek watershed. Maple Heights High School lies within the Mill Creek watershed. Like Big Creek, Mill Creek is an urbanized tributary to the Cuyahoga River, with similar land uses. Program partners enjoyed working with the students, with GM Parma Metal Center Senior Environmental Project Engineer Diane Palmer stating that "...in the many years [we] have participated in this activity...this was probably one of the best groups of kids we have worked with..."

Thanks to the GM Foundation, we look forward to continuing this program each spring and fall with Cleveland, Brooklyn, Maple Heights, and other schools that may be interested in the program.



Maple Heights students sorting and classifying macro-invertebrates (water bugs) during October 2021 stream monitoring event



Maple Heights students on Big Creek Reservation site tour October 2021

STORMWATER CONTROL MEASURES IN THE BIG CREEK WATERSHED

In our December 2020 newsletter, we examined the difference between storm and wastewater and the importance of reducing the volume and pollution loads entering separate and combined sewer systems. We discussed how sanitary and combined sewerage is treated at water treatment plants and how storage tunnels are being built to capture the large volumes of combined sewerage that can overwhelm combined sewer systems. And we began to explore ways that the volume and pollution loads entering both types of sewer systems can be reduced — by restoring our streams and natural areas, through green infrastructure, and by raising watershed awareness. Examples of these practices are again given in this newsletter.

There are, however, other important measures that can be taken to improve how our watersheds function. These include measures that municipalities can undertake, like adopting zoning and building codes that require setbacks from streams or wetlands; incentivizing compact, walkable communities while conserving open space; reducing the amount of parking space requirements; and establishing forest cover goals for communities.

Measures to improve our watersheds that property owners and developers can do include green infrastructure methods like diverting runoff into bio-swales and bio-retention basins or rain gardens; installing pervious pavers and infiltration strips where possible; using rain barrels or cisterns; and landscaping with less lawn and planting more trees and native plants. Other measures include creating a buffer zone around streams and wetlands, reducing the use of pesticides and herbicides, picking up pet waste; and never dumping hazardous waste directly into storm drains. Another way everyone can help improve our watersheds is to get involved with, or support watershed organizations like Big Creek Connects.

There is more to learn about watershed management and stormwater control measures than can be covered in a newsletter this size. To explore these topics further, two excellent booklets are available free for download: *The Watershed Book: A Citizens Guide to Healthy Streams and Clean Water* – Cuyahoga River Community Planning Organization; and *Maintaining Stormwater Control Measures: Guidance for Private Owners & Operators* – Northeast Ohio Storm Water Training Council.

The Watershed Book: A citizen's guide to healthy streams and clean water. Cuyahoga River Community Planning Organization. cuyahogariver.org/assets/wsbookfinal.pdf

Maintaining Stormwater Control Measures: Guidance for Private Owners & Operators. Northeast Ohio Storm Water Training Council. neohiostormwater.com/uploads/3/5/0/4/35043674/maintaining_scm_manual_final.pdf

HELP PROTECT AND IMPROVE THE WATERSHED WITH YOUR DONATION

Only with the generosity of our community members can we continue to protect, improve, and connect with our environment.

Please consider a donation to help us make a lasting difference in our watershed communities in the coming year.



Send your contribution with your name, address, phone & email. Make checks payable and mail to:
Big Creek Connects, P.O. Box 609272, Cleveland, OH 44109

Corporate Sponsorships available.

Big Creek Connects (formerly Friends of Big Creek) is a greenway advocacy and watershed stewardship 501(c)3 non-profit organization.

Secure credit card payment: online at bigcreekconnects.org or scan code.

THANK YOU FOR MAKING A DIFFERENCE!

6TH BIENNIAL GREATER CLEVELAND TRAILS AND GREENWAYS CONFERENCE

After COVID-19 upended the Greater Cleveland Trails & Greenways Conference Planning Committee's program for the June 2020 Conference, we were pleased to partner with the Industrial Heartland Trails Coalition and Rails-to-Trails Conservancy for a successful June 2021 conference with the theme: *Unlocking the Economic Potential of the Region*.

Recognizing the value of trails and greenways, planners, practitioners, and trail advocates from around Greater Cleveland and the wider Industrial Heartland region convened to share ideas, discover new tools, and set the stage to transform plans and concepts into successfully completed projects. We also examined timely topics brought to the fore in the past year, including lessons learned from the pandemic, community development, and matters of equity and inclusion. Plus, of course, our always popular Showcase that recognizes and awards outstanding trail, water trail and bikeway projects; as well as creative trail programming, creative community engagement events, and people who have made notable contributions to the advancement of trails and bikeways throughout their career.

Building on feedback from our 5 previous, highly regarded Conferences, the content of the event included experts, open discussions, and site visits geared toward creating vibrant neighborhoods and aiding timely completion of the recreation/transportation network in the Greater Cleveland area. This year, we were thrilled that we could widen the scope to include the Industrial Heartland Trails, a 1,600-mile hike/bike trail network in 5 states. To learn more about this and prior year conferences, visit: GCTrails.org.

Catch recordings of the conference sessions at ihearttrails.org/summit



The June event was hybrid—part virtual and part in-person site tours. Here, Cleveland Metroparks' Chief Planning and Design Officer, Sean McDermott, speaks during a tour of the new Wendy Park Bridge and Whiskey Island Connector Trail.



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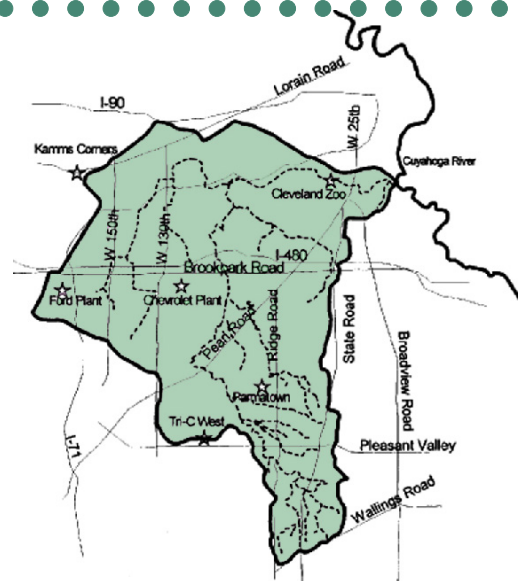


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- Derek Schafer, Executive Director, West Creek Conservancy
- Jeffrey T. Verespej, Executive Director, Old Brooklyn Community Development Corporation



Big Creek is the 3rd largest tributary of the Cuyahoga River. Its watershed contains over 130 miles of streams and culverts. Together they drain nearly 39 square miles from 8 municipalities - Cleveland, Brooklyn, Linndale, Parma, Parma Heights, Brook Park, Middleburg Heights, and North Royalton. Over 90% of the watershed's area has been developed and 39% of the land surface has been made impervious, making Big Creek the most heavily urbanized watershed of any major tributary in the Cuyahoga River Watershed. This degree of urbanization provides tremendous challenge...and opportunity.