

Euclid Creek Watershed Update



Euclid Creek Watershed Council

- City of Beachwood
- City of Cleveland
- City of Euclid
- City of Highland Heights
- City of Lyndhurst
- City of Mayfield Heights
- Village of Mayfield
- City of Richmond Heights
- City of South Euclid

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Euclid Creek Partners:

Euclid Creek Watershed Council, Friends of Euclid Creek & Cuyahoga Soil & Water Conservation District

Students Plant Rain Garden at Mayfield School Board Office

In late November, students installed the first rain garden on Mayfield City School Property in front of the Board of Education building in Mayfield Heights. This rain garden was a partnership with the Mayfield City School District, the Cities of Highland Heights and Mayfield Heights, Cuyahoga SWCD and the Euclid Creek Watershed Council. Students from Mayfield City Schools and the Gates Mills Environmental Education Center Excel TECC Horticulture Center, led by teacher Ed Tuhela, designed and planted the garden, which will demonstrate the benefits of these gardens in our community to improve our streams and natural resources.



A rain garden is an attractive landscaped area planted with perennial native plants which don't mind getting "wet feet". Built in a bowl shape, a rain garden is designed to increase infiltration allowing rain and snowmelt to seep naturally into the ground. Rain gardens recharge groundwater supply, prevent water quality problems, provide habitat for birds and butterflies, and are beautiful landscape features.

Recent studies have shown that up to 70% of the pollution in our streams, rivers and lakes is transported there by rain, in the form of runoff which negatively affects aquatic life. Some of the common "non point source pollutants" from our yards that end up in our waterways include soil, fertilizers, pesticides, pet wastes, grass clippings and other yard debris. Rain gardens can help increase the infiltration of stormwater.



Rain Garden Dedication

The rain garden was constructed to collect and treat storm water generated from 1,100 square feet of the School Board Building roof. Water that previously flowed into a storm drain was diverted into the rain garden to allow the storm water to be filtered of pollutants and to infiltrate into the soil recharging groundwater. Excess water overflows into a storm drain and ultimately into the Chagrin River.

Upcoming Meetings & Events

Sat, May 15, 9:00am-noon

Mon, May 17 6:30-7:30pm

Sat, June 5, 9:00-11:00am

Sat, June 5, 11:00am-12:30pm

Fri, June 18, 9:00-10:30am

Thu, July 8, 7:30-9:00am

Wed, July 14, 6:30-8:00pm

M-F, July 19-23, 8:30am-4:00pm

Wed, Aug. 25, 6:30-8:00pm

Sat, Sept. 11, 9:00am-noon

1st Tue of Month, 7:00pm

4th Wed of Month, 7:00pm

Euclid Creek 4th Invasive Plant Pull & Bioswale Maintenance Event, Wildwood State Park, Cleveland. *Volunteers are needed to maintain the new bioswale and to help remove invasive garlic mustard**

Wildwood State Park Bioswale tour, sponsored by Northeast Ohio Watershed Council

Rain Garden Plant Kit Sale - South Euclid, Service Garage. Orders Required by May 13th*

Rain Barrel Workshop - South Euclid, Service Garage. Registration Required by May 28th*

Euclid Creek Public Involvement & Public Education Committee, Highland Heights City Hall

Euclid Creek Watershed Council Meeting, Euclid Community Center

Rain Barrel Workshop - Mayfield Heights, DeJohn Community Cntr. Registration Required by July 7th*

Tri-C East Offers Watershed Course for Educators - Environmental Science for Educators:

Promoting Watershed Stewardship, Tri-C East Campus, Contact Dr. Rowan for details 216-987-2368

Rain Barrel Workshop - Mayfield Village, Community Room. Registration Required by August 18th*

Euclid Creek Stream Cleanup & Bioswale Maintenance Event, Wildwood State Park, Cleveland

*Volunteers are needed to maintain the new bioswale and to help clean up Lower Euclid Creek**

Friends of Euclid Creek (FOEC) meets monthly at the South Euclid Community Center

South Euclid Citizens for Land Conservation meets monthly, as needed, at the South Euclid City Hall

*Contact the Watershed Coordinator to register and for more event details at: (216) 524-6580x16 or cposius@cuyahogawcd.org

Please check the Euclid Creek website for more event listings or for more details about an event listed above.



Friends of
**EUCLID
CREEK**

From the Friends: FOEC Updates

Euclid Creek Photography Contest 2010!

The Friends of Euclid Creek invite you to share your visions of life around our watershed by submitting your photos of Euclid Creek.

The goals of the contest are to:

- ◆ highlight the beauty of the Creek as it flows through the eleven watershed communities;
- ◆ showcase the culture and historical sites of the watershed; and,
- ◆ encourage others to enjoy this wonderful natural resource.

Please submit photos in the following categories:

- ◆ Plants and Animals in the Euclid Creek watershed

- ◆ Recreation in the watershed
- ◆ Cultural and Historical Sites
- ◆ Black & White of any of the categories mentioned
- ◆ Age 17 and Under – of any of the categories

Entry Deadline is October 5.

Grand prize of \$100 for the winner.

For information, entry instructions, maps and more, go to www.friendsofeuclidcreek.org or call Larry McFadden at 216-531-7144.

Join FOEC Today!

The Friends of Euclid Creek help inform and educate the public on the many things happening in the watershed. Be part of its future by joining and supporting FOEC.

New membership dues: Individual - \$15, Family - \$25, Student or Senior - \$10, Special Friend - \$50 and Sustaining Member - \$100.

To become a member contact:

Friends of Euclid Creek
P.O. Box 21384
South Euclid, OH 44121-0384
FriendsofEuclidCreek@gmail.com

Log on to **FOEC's website & blog:**

www.friendsofeuclidcreek.org,
foecnews.blogspot.com

FOEC Officers are:

President: Fran Hogg
Vice President: Frank Skala
Secretary: Larry McFadden
Treasurer: Ken Rapport
Directors: Steve Albro, Gary Bloom, Michael Ceraolo, Lou Drasler, Larry McFadden, Kathy Schaefer, & Carolyn Suguchi

2009 Stewardship in Euclid Creek An Even Better year than the last!

We are well into 2010, but it is important to reflect on and celebrate our annual accomplishments in 2009. The Euclid Creek Watershed Program educated over 20,000 residents about our complex



storm water problems and offered solutions that anyone can implement in their backyard. Residents, city officials and the development community were educated about the annual educational theme of Low Impact Development, an ecologically friendly, lower cost approach to site development and storm water management that mitigates development impacts to water, land and air.

Nearly 200 residents put together 144 rain barrels at

Euclid Creek Watershed Rain Barrel workshops to help slow down our storm water before it enters our streams. Rain Gardens were installed by 8th graders at Hawken and horticulture students at the Mayfield School Board Building. Beachwood passed an ordinance allowing rain barrels in the City. Lyndhurst began planning for its second native wildflower meadow in a public park. Also, of notable mention is the fact that people participating in the watershed events more than doubled compared to 2008, as did the number of people signing up for the Euclid Creek Newsletter.



It's time to thank each and every one of you who participated in events and meetings. Even you reading this newsletter now, share what you're reading with friends and family and you will make a huge difference! Each incremental step will help us improve our local water quality, and without all of your support these advances would not be possible.



Euclid Creek Watershed Program

2009 Public Education and Involvement (PIPE) Summary
Theme: Low Impact Development

	Participants
Euclid Creek Watershed Council Public Meetings	120
Watershed Booth at Community Events	2,970
Watershed Events Participation	458
Water Monitoring & Schools Involvement	384
Outreach to Educators	10
Environmental Awareness Survey Respondents	243
Watershed Presentations at Public Meetings	349
Totals	4,534
Residents Receiving Information	
Educational Mailings to Households	9,030
Euclid Creek Newsletters*	4,398
SWCD Newsletter	1,765
Totals	15,193
Number of Instances	
Assistance to Watershed Residents and Officials	541
Quarterly Educational Materials to Communities	4,640
Totals	5,181

* In 2009, 231 people signed up for the Euclid Creek e-Newsletter

Help the Euclid Beach Adopt-a-Beach Team Buy New Trash/Recycling Cans at Euclid Beach

by Stephen Love of the Euclid Beach Adopt-a-Beach Team

The Euclid Beach Adopt-a-Beach team wants to buy new trash and recycling receptacles for Euclid Beach Park and needs your help! Adopt-a-Beach is a volunteer organization and subsidiary of the Alliance for The Great Lakes, a Chicago based non-profit dedicated to sustaining and improving the health of our lakes and beaches.

Each month our team conducts beach clean ups at Euclid Beach. From our waste data collected, it is apparent that Euclid Beach Park faces improper waste disposal problems. Currently, there are three 55-gallon open steel drum barrels that are used for trash disposal at Euclid Beach. These units are inadequate for containing trash because: *trash overflow is problematic during the summer months, and animals like seagulls and raccoons remove and spread trash across the beach.* The spread of trash across the beach is a likely contributor to higher levels of bacteria in the surrounding sand and water. Visibly, it communicates a lack of care for the quality of our beaches, encouraging even more littering.



Existing Open
Trash Cans



Sample New
Recycling /
Trash Can

The Euclid Beach Adopt-a-Beach Team wants to purchase and install three trash and recycling stations at each major entry point onto the beach. We are looking for trash and recycling units that are elevated, have a closed lid and are made of non-corrosive materials.

In order for this project to be successful, we need your support! Our team hopes to raise \$1,500.00 in individual contributions by early July. Any amount helps!

Mail your donation to: Northeast Shores Development Corp., 317 East 156th St., Cleveland, Ohio. Make checks payable to: "Northeast Shores Development Corp.", and on the subject line "Euclid Beach Project". For details, contact Stephen Love at slove@mail.bw.edu or 216-571-0685.

Euclid Creek Environmental Awareness Survey Results are In!

The Euclid Creek Environmental Awareness Survey results are in and a detailed report is on the Euclid Creek website (see back page for web address). 291 people completed the survey and provided valuable information that will help guide our education program in the watershed. Respondents had a great level of awareness about complex environmental issues.

Planting with Purpose

by Barb Holtz - Friends of Euclid Creek member, Naturalist, and Natural Gardener

In the past couple of decades, gardening for me has become not only a personal pleasure but also a call to conservation. What we plant and how we care for our home, school and community landscapes has a definite impact on the watershed and surrounding wild places. This is the new face of an age-old pastime and it is a face I would encourage you to know. It is *natural landscaping*.

Natural landscaping brings together beauty, benefit to the wild and budget. By planting our yards with native plants in a more naturalized fashion, homeowners can help preserve our native flora, provide food and cover for wildlife and spend less money on fertilizers, biocides and water. The greatest benefit of natural landscaping is reacquainting ourselves, or meeting for the first time, the natural world.

It is easy to disconnect the home landscape from nature. We draw boundaries around cities and our personal properties. But no matter where the line is drawn, what happens in our yard does not stay in our yard. Chemicals runoff into water sources and exotic plants escape via seed or plant pieces carried by wildlife, wind or tossing of waste. Invasive, non-native plants (and animals) are a top environmental concern in Ohio and beyond. Why? Non-native plants out compete native plants for space on the land. Native plants, or plants present in an area before European settlement, are members of an original natural community that are adapted to local conditions. Once these plants are replaced by other species, the balance and diversity in the community is lost. Our natural heritage is lost.

With the gardening season upon us, I invite you to take a stand against invasive plants in your own landscape by managing the invasives already present on your property and choosing not to plant more. Tops on the list of plants to avoid are listed below, and their **native alternatives are in (parentheses)**:

- ◆ English ivy and Vinca vine (Bearberry, Wild ginger, Hellebore)
- ◆ Purple loosestrife - do not be drawn in by claim of sterile hybrid (Blazing star, Cardinal flower, Swamp milkweed)
- ◆ Burning bush (Red or Black chokeberry, Virginia sweetspire, Black haw)
- ◆ Japanese barberry (Ninebark, Winterberry holly)
- ◆ Privet (Black haw)
- ◆ Bush and Japanese honeysuckle (Trumpet honeysuckle, Elderberry, Beautybush)
- ◆ Oriental bittersweet (American bittersweet)
- ◆ Common reed and Reed canary grass (Prairie cord grass, many native grasses!)



Cardinal flower



Wild ginger



Prairie cord grass

Intrigued? Take the next step and find out more about natural landscapes and invasive plants. Check out the Wild Ones: Native Plants, Natural Landscapes (www.for-wild.org) and the Midwest Invasive Plant Network (www.MIPN.org) websites. For a local supplier of native plants and seed, visit Ohio Prairie Nursery at www.ohioprairenursery.com or call 1-866-569-3380.

East Branch Dam Removal Project Update

Recent updates on the Euclid Creek East Branch Dam removal and stream restoration project have focused on funding and timelines, and it's time to revisit the goals of the project and the design and engineering details.

One of the biggest limitations to habitat restoration in Euclid Creek is the presence of low-head dams in the lower portion of the creek. These dams prohibit the movement of aquatic life. So, the purpose of this project is to eliminate the fish passage barrier created by the dam in order to restore free-flowing stream conditions and improve aquatic habitat and habitat diversity to this stream segment.



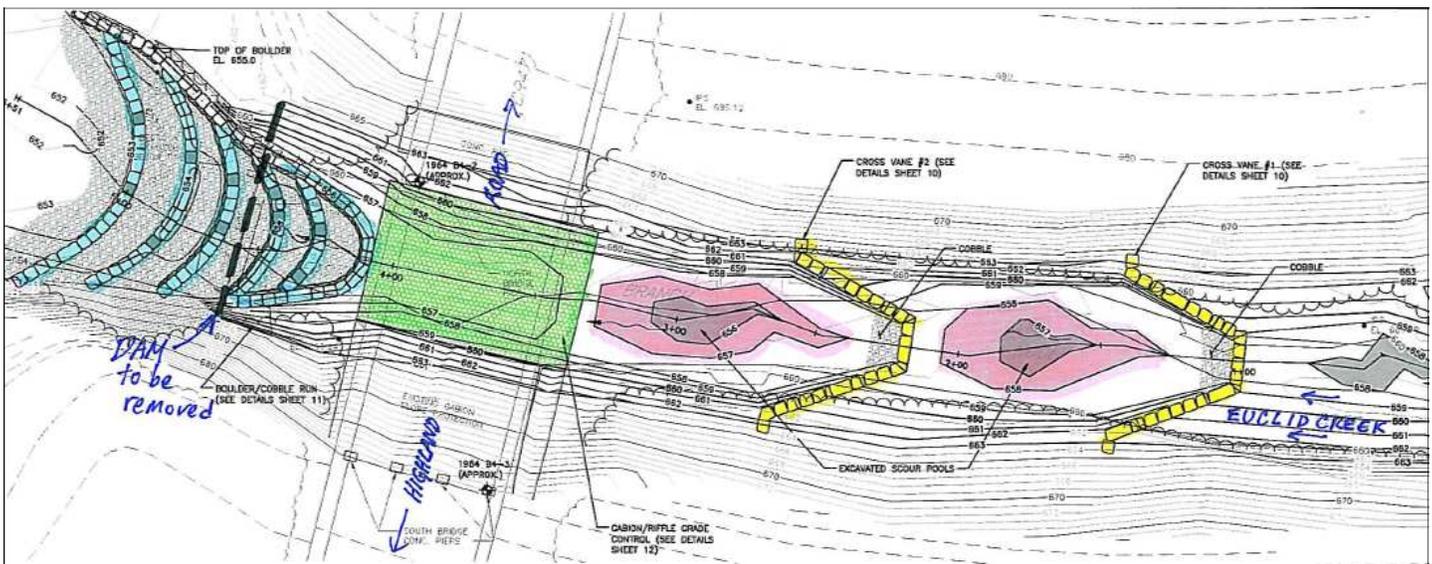
The ultimate watershed goal is to restore Euclid Creek to reach State of Ohio water quality attainment standards.

Removing this dam will open up the ten miles of the East Branch main stem and numerous headwater tributaries feeding into the East Branch to allow for fish passage. This project will restore roughly 500 linear feet of stream upstream of the dam to a more natural grade and geometry.

The graphic below shows a plan view of the dam removal and stream restoration project, designed by consultant Burgess & Niple. The engineering is more complicated than most low-head dam removal projects because Highland Road, a major County roadway, travels over this section of Euclid Creek. The footers of the bridge are just upstream of the dam and require careful engineering to keep the roadway overhead stable. In addition, urban streams experience 'flashy flows' in storms, meaning that water rises rapidly and quickly causing major erosion and damage to bug and fish habitat. Therefore the design had to take into account these difficult conditions.

The design incorporates *natural stream design*, mimicking the riffle, run and pool geometry of unaltered natural streams. The first step in the project is to remove the dam, a 6 foot tall concrete structure. The second step is to install three structures which include placing large stones in the stream to direct flow, slow flow down, prevent erosion, and protect the bridge piers. Two *cross veins* (shown in yellow in the graphic below) will control the stream grade, dissipate the energy of the water, and direct the water flow to the center of the stream away from the bridge footers. A *gabion mattress* (green shaded area) will be installed below the bridge to protect the bridge footers and to prevent degradation of the bedrock below. A *boulder-cobble run* (blue shaded structures) will act as grade control to mimic existing run features found in natural streams and will incorporate low flow pathways and resting pools to allow small fish to move upstream. Excavated *scour pools* (pink shaded areas) will also mimic the slow moving pools in natural streams to allow fish to rest and move upstream. Any excavated material behind the dam will be allowed to flow downstream as the stream has been starved of this important sediment for years. Last of all, native plants will be planted along the stream to provide habitat for fish and bugs.

More updates on this exciting project will come in the next newsletter, so be on the lookout.



Plan View of Project

Storm Water Technical Newsletter

If you want to learn more about storm water and see what our storm water program staff does, see the newest publication to come out of Cuyahoga SWCD, the [Storm Water Program Technical Quarterly](#) newsletter. Learn about the newest technologies for storm water best management practices, and Ohio EPA storm water regulations and training opportunities. Issues are electronically stored at: <http://www.cuyahogawcd.org/services-stormwater-publications.html>.

Storm Water Retrofit Opportunities Inventory Project Update

Last Summer the National Fish and Wildlife Foundation (NFWF) awarded Cuyahoga SWCD \$98,000 through its Sustain Our Great Lakes grant program to conduct a storm water retrofit opportunities inventory in the Abram, Baldwin and Euclid Creek watersheds. Christina Keegan was hired to work on the Storm Water Retrofit Opportunities Inventory, and Biohabitats Inc., a conservation planning/ecological restoration consultant, was hired to oversee the project and design concepts for the top sites chosen. Christina compiled detailed information for over 150 sites in the Euclid Creek, Abram, and Baldwin Creek watersheds. This data is being used by the Euclid and Rocky River Watershed Coordinators to prioritize storm water retrofit project opportunities in the target watersheds.

Over the winter, Biohabitats conducted a training to teach other local watershed groups and conservation organizations how to conduct a storm water retrofit inventory, so that many groups can begin working on these important projects at the same time to improve our regional water quality.

The next step is to finalize the top priority sites and for Biohabitats to prepare concept designs for these sites. Having concept designs and rough cost estimates prepared for these projects will greatly help when applying for funding to construct these projects. And by having a prioritized list of project opportunities prepared, we will have projects ready to implement that will help improve water quality and stream habitat conditions in Euclid Creek.

Euclid Creek Tunnel Project Update by Jordan McCormack, Wade-Trim (Consultant to NEORS on ECT project)

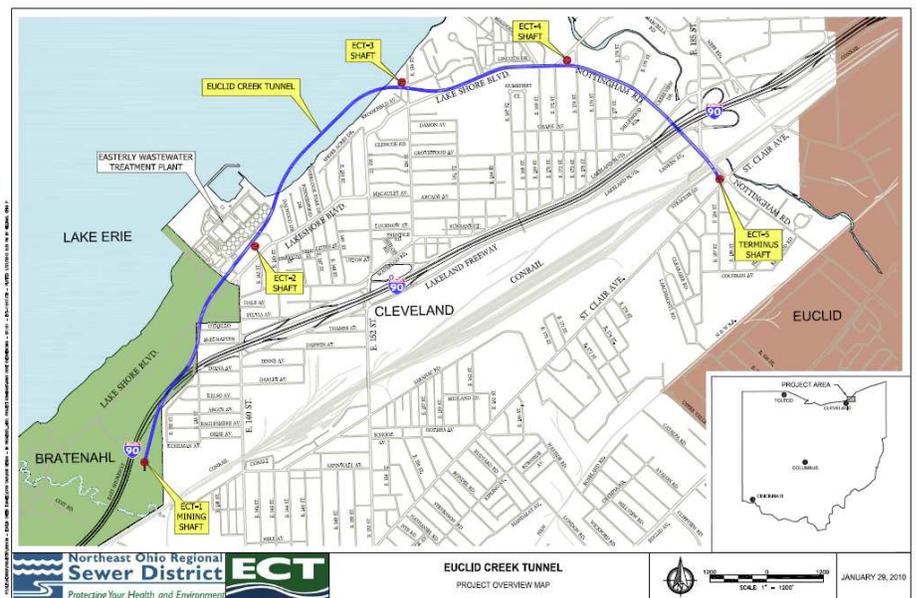
The Northeast Ohio Regional Sewer District (NEORS) is completing the design of a combined sewer overflow (CSO) control tunnel project that will improve water quality in Lake Erie and Euclid Creek. The Euclid Creek Storage Tunnel (ECT) project is designed to significantly reduce the number of combined sewer overflows to Euclid Creek and Lake Erie by rerouting the overflows into the new tunnel. A Tunnel Dewatering Pump Station (TDPS) will then pump the contaminated water from the tunnel to the Easterly WWTP for treatment. Currently, CSO's in the Euclid Creek area overflow more than 60 times a year. When the tunnel is complete, overflows should reduce to less than four times in a typical year of rainfall.

The Euclid Creek Storage Tunnel will start in Bratenahl, south of Interstate 90, and continue northeast to the District's Easterly Wastewater Treatment Plant. There, the tunnel will continue under Lake Erie for about 3,000 feet and pass under the shoreline near Green Creek at East 152nd Street. The tunnel will then head east, following Lake Shore Boulevard and Nottingham Road, and end at St. Clair Avenue (see map below).

The ECT is a 24-foot-diameter, 18,000-foot long storage tunnel that will be excavated with a tunnel boring machine at an average depth of 200 feet below ground. It will have the capacity to hold 60 million gallons of combined stormwater and wastewater. The tunnel mining site will be on a property in Bratenahl that NEORS refers to as the Nine Mile site. The Nine Mile site is east of I-90, southwest of E. 133rd St. and Kuhlman Ave., and north of Nine Mile Creek. All of the rock excavated to construct the tunnel will be removed at this site via the mining shaft, which will be 200 feet deep and 48 feet in diameter.

The TDPS will also be constructed at the Nine Mile site. The TDPS construction will begin about one year later than the ECT and be completed around the same time. An electrical substation will be constructed on the Nine Mile site to provide power for construction of the tunnel and operation of the TDPS. After completion of the ECT project, the Dugway Storage Tunnel (DST) project, which is similar to the ECT in length and diameter, will begin. The mining shaft for DST will also be located at this site, and the DST project will proceed in a southwesterly direction.

The ECT project will be advertised for construction bids in July 2010. Construction is slated to begin in late 2010 and will last four years and should be complete by early 2015. The estimated cost is \$204 million. This massive public investment will greatly improve water quality in Euclid Creek and Lake Erie, our region's invaluable source of drinking water.



ECT Project Alignment Map

*Euclid Creek Partners:
Euclid Creek Watershed Council, Friends of Euclid Creek &
Cuyahoga Soil & Water Conservation District*

Euclid Creek Watershed Coordinator
Cuyahoga Soil & Water Conservation District
6100 West Canal Road
Valley View, Ohio 44125

Phone: 216-524-6580 x16
Fax: 216-524-6584
Email: cposius@cuyahogawcd.org

We're on the web: www.cuyahogawcd.org

Then click on *Services* and *Watershed Programs*, then scroll down to *Euclid Creek!*

If you would like to receive this newsletter electronically, email cposius@cuyahogawcd.org or call 216-524-6580 x16 with your contact information.

**Only Rain
Down the
Drain**

Euclid Creek Places – Wildwood Lakefront State Park **Wild about Wildwood**

by Carol G. Ward, Park Naturalist—Cleveland Lakefront State Park

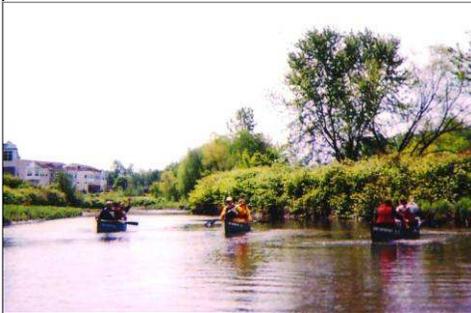
When you hear of Wildwood you might think of that water park in Columbia Station or perhaps a city in New Jersey. But you should really think closer to home – Wildwood State Park (aka Neff Road Park by the 'old timers') located on Lakeshore Boulevard near Neff Road. Originally a farm owned by Oscar Neff, it was used in the 1920's as a resort with cabins and a dancehall where a couple could check their coats for 3 cents and dance for the same amount. The land was sold to the City of Cleveland in 1936 and then added to the lease to the State of Ohio in 1978, along with other lakefront parks including Edgewater and Gordon.

Today Wildwood is no longer a place for farming and dance halls, but for fishing, boating, picnicking, and exploring nature. Despite its urban location, Wildwood is home to deer, beaver, muskrat, mink, bats, coyote – and at one time wild turkeys (until the coyotes came in). Euclid Creek, which runs through Wildwood and meets Lake Erie, hosts the perfect fishing spot

for Steelhead Trout, Coho Salmon, Bass, Catfish and more. It's also home for macro invertebrates

such as dragonfly & damselfly nymphs, amphibians – such as frogs and reptiles – several species of aquatic turtles and water snakes. Of course we can't forget to mention some of the flashier shorebirds such as Great Blue, Green and Black-crowned Night Herons as well as Belted Kingfishers.

So, next time you're looking for a place to enjoy recreation or exploration – look no further than your own neighborhood. Wildwood has much to enjoy on your own or while attending a park program with the naturalist. For a listing of spring & summer activities please visit www.clevelandlakefront.org and click on Naturalist Programs or call 216-881-8141 ext. 3001.



Canoe Trips on Euclid Creek at Wildwood State Park

