

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

2009 Upcoming Meetings & Events

- Friends of Euclid Creek Monthly Meeting***
January 6, 7:00pm
South Euclid Community Center
- Euclid Creek Public Involvement Committee**
January 23, 9:00am
Location TBD
- Euclid Creek Watershed Council Meeting**
February 5, 7:30am
Lyndhurst Community Center
- Mayfield Village Garden Club Rain Garden Presentation**
March 25, 7:30pm
Mayfield Community Room
- Household Hazardous Waste Round-Up**
May 9, 9:00am-4:30pm
Cuyahoga County Fairgrounds

*Friends of Euclid Creek (FOEC) meets the first Tuesday of the month at 7:00pm at the South Euclid Community Center.

South Euclid Citizens for Land Conservation meets the fourth Wed. of the month at 7:00pm at the South Euclid City Hall.

Euclid Creek Partners:

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

Euclid Creek Watershed Residents Encouraged to Participate in Environmental Awareness Survey

The Euclid Creek Watershed Partnership is encouraging residents to participate in a survey to help assess the level of awareness residents have with regard to common household activities and their potential impact on the quality of our local water resources.

Answers provided will serve as a tool to develop water quality educational materials for target audiences, and will help to determine appropriate methods to deliver educational messages.

Over time, the survey will help gauge the success of educational programs and ensure the effective spending of public funds.

Simply click on the link entitled [Euclid Creek Watershed Communities Environmental Awareness Survey](http://cuyahogawcd.org) at <http://cuyahogawcd.org>. By completing the on-line version of the survey, a considerable amount of time and money needed to compile answers will be saved. To request a paper copy be mailed to you, contact Claire Posius at 216-524-6580 x16 or cposius@cuyahogawcd.org.

Please be assured that measures have been put in place to guarantee the confidentiality and anonymity of the answers you provide. To ensure a meaningful number of surveys are completed, *the deadline to submit the survey is February 13, 2009*. However, we encourage you to fill out the survey at your earliest convenience.

It is requested that only *one survey per household be completed* and that only those who are at least 18 years of age and a head of the household participate in the survey.

Thank you for taking the time to assist the Euclid Creek Watershed Partnership with this effort, your participation is greatly appreciated. Results of the survey will be made public shortly after the deadline has passed.

Call for Presentations / Get Involved in Euclid Creek!

If you are a **school, garden club, boy/girl scout troop, or community group** interested in getting involved, or learning about the Euclid Creek Watershed or our programs for stream monitoring, storm drain stenciling, stream cleanups, invasive plant pulls, rain garden presentations / plantings, or rain barrel workshops, please contact the Euclid Creek Watershed Coordinator at (216) 524-6580 x16 or cposius@cuyahogawcd.org.

Call Soon—The 2009 schedule is filling up fast!

Euclid Creek Watershed Partnership

Euclid Creek Watershed Council

MEMBERS

Cities of:
Beachwood
Cleveland
Euclid
Highland Heights
Lyndhurst
Mayfield Heights
Richmond Heights
South Euclid
Village of:
Mayfield



Friends of Euclid Creek





Friends of
EUCLID
CREEK

From the Friends: FOEC Updates

The Friends of the Euclid Creek held their annual holiday party and fundraising event on December 4th. Participants enjoyed great food and music while raising money to support various watershed projects.

Several people were recognized for their outstanding work to preserve and enhance the Euclid Creek Watershed. **Ginny Aveni** was awarded the Thomas Jenkins Memorial Award. Ginny was one of the founding members of FOEC and continues to be a driving force behind all the FOEC activities. **Barb Holtz and Sunny Simon** were recognized for their work with South Euclid Citizens for Land Conservation (SECLC) in identifying key parcels of land in South Euclid for land conservation. **Frank Skala**

and Ken Rapport were recognized for their work with Love our Green Space (LOGS) which sponsored a charter amendment in Highland Heights that will require a vote of the residents on any use of park land for drilling, commercial development or sale. **Bob Gibbons** was recognized for developing an informative promotional packet for fundraising.

A recognition award was also given to **Mary K. Evans** who as treasurer steered FOEC through their loftiest endeavor, the conservation easement of the Dusty Goldenrod Meadow in Highland Heights. She also developed a database for membership and donations. The Next meeting of FOEC will be on Tuesday, January 6.

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, \$15, Student or Senior, \$10 and Donor, \$50.

To become a member contact:
Friends of Euclid Creek
P.O. Box 21384
South Euclid, OH 44121-0384

or Log on to FOEC's website:
www.friendsofeuclidcreek.org

6th Annual Euclid Creek Watershed Event – A Success!

The 6th Annual Euclid Creek Day was a shared event this year with the Cuyahoga Soil & Water Conservation District's (SWCD) 59th Annual Meeting. The September 13th Conservation Day and picnic celebrated efforts to clean-up the watershed and introduced participants to the wide variety of ways in which to get involved and be a watershed steward.

In spite of the inclement weather nearly 100 volunteers participated and got to see first hand the impacts of storm water as the Euclid Creek raged through the reservation.

A wide variety of activities were held at the Euclid Creek Reservation, including a stream monitoring training session with Dr. Nichols of John Carroll University; a visit to see the Euclid Creek East Branch Dam, a dam scheduled to be removed to allow for fish passage and stream restoration Summer of 2009; a rain barrel demonstration and talk about the benefits of capturing rain water; and a tour of the Nine Mile Watershed wetland project in South Euclid.

A picnic lunch was prepared by volunteers from the Richmond Heights Key Club. And one of the **Conservation Awards** went to an active Euclid Creek Watershed Program steward, **Joe Newman**, for his six years of dedication and participation in the Public Involvement Public Education Committee representing Mayfield Heights. Attendees had the chance to talk with 13 different environmental organizations that participated in the event, and were able to fill out an Environmental Awareness Survey in order to guide public education efforts in their community.

Additional Euclid Creek Day activities were two motor oil drops available for residents of Beachwood and Richmond Heights. And the City of Lyndhurst facilitated planting a rain garden at Schaeffer Park the with help from the Brush and Regina Environmental Clubs.

Thanks to our sponsors and supporters. We couldn't do it without you!

- * Euclid Creek Watershed Council & PIPE Committee Communities * Friends of Euclid Creek * Biohabitats, Inc. *
- * Cleveland Botanical Garden * Cleveland Metroparks * John Carroll University *
- * Legacy Village * Richmond Heights Key Club volunteers * Brush and Regina Environmental Club volunteers *



Rain Barrel Demonstration



Richmond Heights Key Club
Volunteers Cooking



Brush & Regina Environmental
Clubs plant rain garden

Cuyahoga Soil and Water Conservation District (SWCD) awarded ODNR Grant

Cuyahoga SWCD was awarded \$54,000 over three years to continue support for the Euclid Creek Watershed Coordinator position. The Ohio Department of Natural Resources (ODNR) and Ohio Environmental Protection Agency (OEPA) provided state and federal funds, and Cuyahoga SWCD and the Euclid Creek Watershed Council communities provided the local match funds. The initial grant was a six year grant that ends in 2008 and focused on writing a Watershed Action Plan for Euclid Creek which was endorsed by the state in 2006. The new three year grant will continue implementation of the watershed program by encouraging protection and restoration of critical natural resources, promoting sustainable conservation development and redevelopment, and educating property owners about ways they can help the watershed. To date, the program has leveraged 2.2 million in local, state and federal money toward plans and projects to improve Euclid Creek.

Storm Water Ordinances that Protect our Watersheds

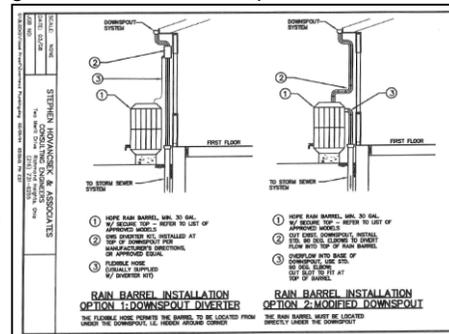
Most of the problems related to the health of Euclid Creek are due to untreated storm water runoff from rainfall or snowmelt. Contaminants like fertilizers, pesticides, bacteria and salts flow into our storm drains, streams and lakes and degrade fish habitat and water quality.

As part of the Ohio Environmental Protection Agency's (OEPA) storm water regulations, communities must have a storm water management plan in place and ordinances that address controlling construction site soil erosion and other wastes in storm water runoff, post-construction water quality runoff, illicit discharge, and protection of streambanks that have eroded and caused downstream flooding problems in our communities.

While Euclid and Richmond Heights led the way in passing these ordinances last year, many more have followed suit. South Euclid and Beachwood also passed the Riparian and Wetland Setback Ordinance, and Cleveland is currently drafting a Watercourse Protective Zone District. Beachwood, Cleveland, Highland Heights, Lyndhurst, Mayfield Heights, and South Euclid passed the erosion and sediment control ordinance. Beachwood, Cleveland, Lyndhurst, and Mayfield Heights passed the post-construction storm water runoff control ordinance. And Beachwood, Cleveland, Lyndhurst, and Mayfield Heights passed the illicit discharge ordinance.

South Euclid and Euclid went above and beyond the requirements by passing ordinances allowing rain barrels. Most communities do not permit citizens to disconnect their downspout from the storm sewer system, as the volume of water could cause flooding issues. But, communities are recognizing the value of disconnecting downspouts to allow people to utilize rain barrel systems for lawn irrigation and water conservation. Both Euclid and South Euclid require that the rain barrel be designed to flow back into the storm sewer system once full by installing a downspout diverter or by modifying the downspout.

These ordinances are pivotal to managing storm water runoff issues in the Euclid Creek communities, so please thank your Council members, administration and community leaders for leading the effort to protect our watershed.



South Euclid and Euclid's Rain Barrel Installation Detail

East Branch Dam Project Update

The East Branch Dam Removal Project was featured at the 6th Annual Euclid Creek Day, as the event was held a short walk from the dam at the Highland Picnic Area of the Euclid Creek Metroparks Reservation. Euclid Creek Watershed Coordinator, Claire Posius, gave a presentation on the benefits of dam removal / habitat restoration projects, and then took 15 interested participants to see the dam before its anticipated 2009 summer removal. Everyone was fascinated by the project, but the recurring question asked was how the dam would be removed. The answer everyone awaited was a disappointment, the dam *will not* be blown up with dynamite and fanfare, but will be carefully removed with a backhoe and demolition claw, so as to cause as little negative impact to Euclid Creek as possible.



Claire Posius discusses Euclid Creek East Branch Dam Removal project at 6th Annual Euclid Creek Day

The next major progression is that the third, and final, funding source for the construction portion of the project was finalized. In November, \$300,000 in Water Resource Restoration Sponsor Program (WRRSP) money was secured for the project. The Water Resource Restoration Sponsor program (WRRSP) is an innovative program administered through OEPA where municipalities / sewer districts borrowing money from the Ohio Water Pollution Control Loan Fund for large wastewater infrastructure projects borrow more than the cost of the project, with the extra funds directed toward an approved watershed protection or restoration project. In return, the borrowing agency receives a .1% interest rate reduction on the loan. Because the cost of these wastewater infrastructure projects are so large, the .1% rate reduction substantially lowers the borrowing agency's payments, even though it borrowed extra money for the protection / restoration project. In our case, the Northeast Ohio Regional Sewer District (NEORS) is sponsoring the East Branch dam removal restoration project alongside its own Southerly Incinerator Replacement project, both projects will improve water quality in the region. NEORS, Cuyahoga SWCD and the Metroparks entered into a sponsorship agreement for the dam removal portion of the project in November. More updates to come in the Spring newsletter on this exciting project.

Euclid Beach Pier Feasibility Study Complete

by John Boksansky, Northeast Shores Dev. Corp.

The purpose of the Euclid Beach Pier Feasibility study was to determine the feasibility of reconstructing a new pier from the shore out into Lake Erie at the site of the original Euclid Beach Park pier. The study investigated a number of issues, including; identifying the various permits and approvals required to build the pier; investigating the site conditions affecting the design of a pier at the site; gathering community and stakeholder input regarding pier uses, programming and aesthetics; and determining probable cost.

The study concluded that constructing a new pier at Euclid Beach is feasible. The report was prepared by URS for Northeast Shores Development Corporation under an award from the National Oceanic and Atmospheric Administration, U.S. Department of Commerce through the Ohio department of Natural Resources, Office of Coastal Management. To view the complete report check out:

<http://www.northeastshores.org/initiatives.php>.

Lyndhurst Encourages Diverse Solutions to Storm Water Management

When Walgreens decided to build a new store at the corner of Brainard and Mayfield Roads in Lyndhurst, Jeff Filarski, P.E., of Chagrin Valley Engineering (Lyndhurst's City Engineer) thought that the construction project would be a great opportunity to install bioswales for managing storm water. A bioswale is a linear, shallow channel that is filled with a special soil mix and water-adapted plants. The purpose of a bioswale is to collect rainwater and slowly release it to the storm sewer system. Bioswales are a more environmentally friendly and aesthetically pleasing way to manage storm water runoff than utilizing a sediment basin or underground detention system. The bioswales help the City to comply with its OEPA Stormwater Permit.



Open curb allows parking lot runoff into the bioswale to filter pollutants

Visconsi Companies (Developer), Walgreens, Neff & Associates (Civil Engineer), DAS Construction (Contractor), and Chagrin Valley Engineering are all pleased with the results of the collaboration to utilize the bioswales on the re-developed site. In addition to saving valuable space on the site, the bioswales also filter out many of the pollutants found in storm water runoff before the discharge reaches the storm sewers. The bioswales are functioning as both a flow regulator and water *quality* management practice.

How exactly does the bioswale work? Water is routed across an impervious surface, such as a parking lot, into the bioswale. Water ponds in the depressional areas within the swale and then slowly percolates through the soil mix, removing pollutants. Once water has filtered through the soil and mulch layer, it is collected into an under drain system which connects to the storm sewer system. The bioswales at Walgreens are designed to treat and release the storm water runoff within a 48 hour period.

We are excited about this project and will continue to report on innovative ways the Euclid Creek Watershed communities are improving our water quality one project at a time!



Mayfield Heights Plants Trees to Green Up and Beautify Mayfield Road

The City of Mayfield Heights applied for, and received, a \$50,000 Community Development Block Grant (CDBG) for improvements along Mayfield Road, between the Lyndhurst corporate limit to Lander Road. The City applied a \$17,500 match for a total of \$67,500.

The funds were used to provide landscaping along Mayfield Road through the planting of trees and other landscaping elements. A total of 127 trees were planted, 95 Honey locust and 32 Serviceberry trees.

The planting of the trees is expected to improve aesthetics, reduce travel speeds and the heating effects of an urban landscape, absorb carbon dioxide, and reduce noise pollution and storm water runoff. The trees were planted in early November of 2008 by the Mayfield Heights Service Department.



Photo mock-up of Mayfield Road when trees and plantings are established. Source: URS

Thank your City officials for this fantastic street enhancement—if Mayfield Heights had not pursued this outside grant funding, trees would not have been incorporated into this portion of the Mayfield Road improvement project.

Three Euclid Creek Communities Recognized for Recycling Efforts

Three Euclid Creek Communities were given awards at the Cuyahoga Solid Waste District's annual Trash Oscars event.

Beachwood awarded 'Best Supporting Community in a Recycling Role': The City of Beachwood had the 2nd highest recycling rate in Cuyahoga County in 2007 - recycling 67.13% of its waste. They were also recognized for leading-edge composting and automated collection programs.

South Euclid awarded 'Most Improved Recycling Producers': The City of South Euclid had the most improved recycling rate for two years in a row, increasing recycling by over 20% since 2005.

Cleveland awarded 'Best Director in a Leading Role': Cleveland's Commissioner of Waste Collection, Ron Owens, was recognized for his leadership in organizing Cleveland's first automated waste collection program, and for reinstating curbside recycling.



Nine Mile Creek Wetland Retrofit Update—South Euclid

Last year, the Nine Mile Creek / Langerdale Detention Basin retrofit project was highlighted as underway in South Euclid. Nine Mile Creek is a heavily urbanized stream that drains to Lake Erie and is negatively impacted by polluted urban runoff and habitat degradation—a stream with similar issues as Euclid Creek.

South Euclid will spend just under \$800,000 on this innovative project to convert the 1960's Langerdale concrete flood detention basin into a naturally vegetated wetland to alleviate flooding issues in the neighborhood. \$320,000 will be City funded and the remainder is paid for by Ohio Public Works Commission grants and loans. The new wetland will increase water storage during storm events, convert the channelized drainage way into a natural channel slowing down the water flow, and creating aquatic habitat found in wetland environments. This habitat will not only serve the new function of cleaning the water, but will be home to birds, butterflies and other important wildlife in need of habitat.



Detention Basin - Before



Wetland Retrofit - After

Construction began this summer and included many green features during construction. Concrete from the removed channel was reused on site, excavated soil was used in another South Euclid project, and topsoil was stock piled and reused. The 13 pools and weirs are in place and 13,000 native plants were planted this Fall. South Euclid will also build an overlook for birders and the community to enjoy vistas of the wetland. And local businesses like Koehn Sculptors on South Green are promoting this new wetland in their back yard. This project is a model for the Euclid Creek Watershed communities and is one of the first *green infrastructure* detention basin retrofits in Cuyahoga County and in an inner-ring suburb.

City of Euclid's Long Term CSO Control Plan—Update

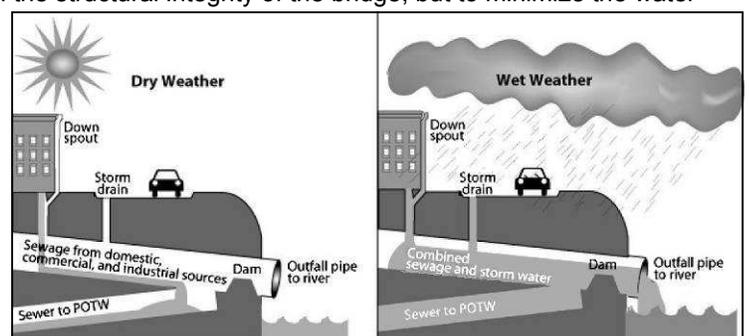
Combined sewer systems (CSSs) are wastewater collection systems that carry sanitary sewage, industrial waste and storm water runoff in a single pipe to a wastewater treatment plant. Combined sewer overflows (CSOs) are outlets that dump excess water from the CSS into streams and rivers during storm events, when increased waterflow overwhelms the system. There are three CSO's in the lower reaches of the creek in City of Cleveland and two on the Lake Erie shoreline adjacent to the mouth of Euclid Creek that are a major source of pollution on the beaches and lower reaches of Euclid Creek, and limit the resource protection and recreational use of the coastal areas. These CSO events occur an average of 50 times a year, which has led to the Northeast Ohio Regional Sewer District's (NEORS) plan to construct an enormous tunnel to reduce overflow events in Euclid Creek in the next decade. Because these systems were built around the turn of the 19th century, the infrastructure is aging and in need of expensive updates.

As reported in 2006, the City of Euclid is implementing its Long Term CSO Control Plan (CSO Plan) to protect and improve water quality in Euclid Creek and nearby Lake Erie tributaries. Over the past several months the City has been in negotiations with the Ohio Environmental Protection Agency (OEPA) in order to finalize the CSO Plan, which will bring all CSO events within the city into compliance with OEPA regulations.



Two projects relate directly to the water quality of Euclid Creek. The first project was completed in the fall of 2008. The city received Issue 1 funding assistance to complete the rehabilitation of the combined sewer pipe located under the Euclid Avenue bridge near Highland Road. The bridge was built circa 1904 and the sewer was installed in 1924. The beams that support the sewer were badly corroded and in need of replacement. The project presented the City, together with Nerone & Sons, with some tough decisions on how to not only maintain the structural integrity of the bridge, but to minimize the water quality impacts to fish and wildlife habitat during construction. Best Management Practices (BMPs) such as, Erosion and Sediment Control, maintaining native riparian vegetation, and minimal disturbance of the stream banks and riparian areas were implemented to maintain the water quality of the creek during and after construction.

The second project, scheduled for the beginning of 2009, will modify the combined sewer regulator located on Bishop Lane. This is Euclid's only combined sewer system that discharges into Euclid Creek. When complete, the scheduled improvements will capture approximately 98% of the combined flow and transport it to the Wastewater Treatment Plant. The City of Euclid is doing its part to improve our water quality!



Combined Sewer System - During dry weather, all flows are handled by the publicly owned treatment works (POTW). During large storms, the relief structure allows some of the combined storm water and sewage to release untreated to local waterbodies. Source: US EPA Outreach.

*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
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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 e-newsletter automatically, email cposius@cuyahogawcd.org or call 216-524-6580 x16 with your contact information.

**Only Rain
Down the
Drain**



History of a Place—US Army Corps Flood Control Channel

One of the most influential impacts in Euclid Creek history was the intense flooding events in 1975 particularly in the area north of Interstate 90. During that year, four flooding events occurred causing extensive property damage due to rapid urban development upstream in the headwaters of the Euclid Creek Watershed. In the early 1980's the US Army Corps of Engineers was commissioned to develop a flood control strategy for the area, which resulted in the existing concrete channel between Lakeshore and Villaview Roads and a diversion channel approximately 1,000 feet north of Lakeshore Boulevard near the existing oxbow.

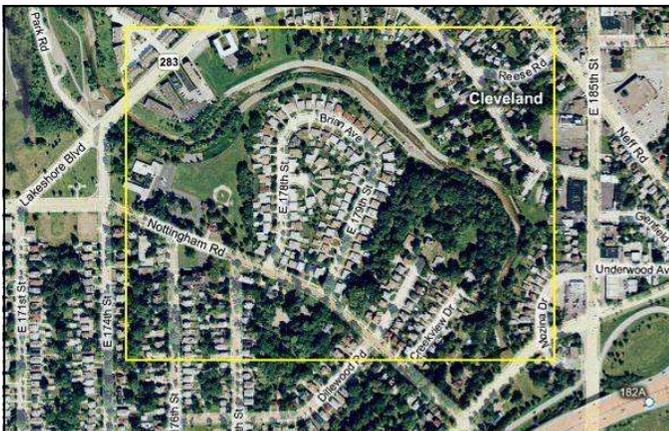


Habitat and wildlife returning to the channel!

The measures included the construction of a narrow concrete channel with levees and a new bridge installed at Lake Shore boulevard to allow less restricted flow for the creek. This project was designed to meet the 100 year flood flows predicted within the creek.



Since completion, shoaling, which is the accumulation of sediment / debris, has continually been occurring which is reducing the level of protection from flooding events. The shoaling has continued to be identified to be a concern in 1995, 2001 and 2004 during US Army Corps annual inspections. As the recommendations examine the chemical, physical and biological conditions developing restoration alternatives that will meet the flood management concerns within this area will be essential to the sustainability of this reach of Euclid Creek.



Concrete channel constructed to alleviate flooding between Lakeshore and Villaview Roads, north of I-90

