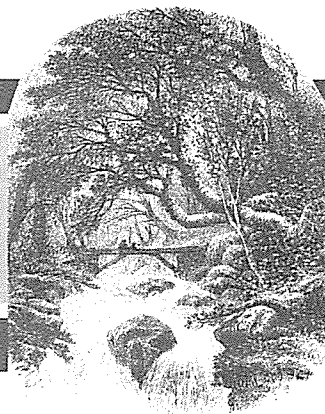


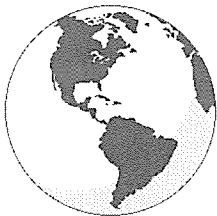
# Ravines

Advocate for a Community Resource



# Quarterly

Volume 1, Issue 4



Ravine Clean-ups are scheduled for Saturday, April 25th and Sunday, April 26th, as part of the Earth Day activities which begin earlier in the week on April 22nd.

A clean-up of the Glen Echo Ravine is scheduled for Saturday April 25th in conjunction with the University Clean-up Day, also referred to as 'High on Pride.' The clean up will include an area from Lane Avenue to the south, Glen Echo Ravine to the north, the Conrail tracks to the east and the Olentangy River to the west. (See map below)

Friends of the Ravines will help coordinate a clean-up of the ravine between Indianola Avenue and High Street, continuing through the remaining ravine area west of High Street to the Olentangy River. We will meet in the parking lot at the North High School on Arcadia Avenue east of High Street Saturday morning at 9:30.

A second group will meet at the bottom of the steps off Cliffside Drive at 9:30 AM and will work on a clean up of the Glen Echo Park area between the railroad tracks and Indianola Avenue. For more information, contact Julie Boyland at 294-7300 or Salle Cleveland at 470-1832.

Free ponchos and T-shirts will be available through the University for all participants. We invite neighborhood participation in the clean-up along with the University effort. Please plan to come out and join us!

A Sunday clean-up, organized by Friends of the Lower Olentangy Watershed (FLOW), is scheduled for April 26th, beginning at 9:30 AM at Rush Run Park in Worthington. The park can be accessed off Broadview Boulevard west of High Street.

For further information about the Sunday event, contact Amanda Davey at 262-8876.



## Care for the "Old Ones"...

### ***Ravines Quarterly***

Advocate for a Community Resource

Volume 1, Issue 4

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Submissions and suggestions are welcome

#### **Ravines Project Advisory Committee**

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Mark Balson

Our sense of history is not only embodied in books, buildings and documents but things of the natural world as well. A singular white oak, over 100 years in age, remains in Overbrook Ravine, with its roots deep in the nineteenth century.



Long before Overbrook Drive cut a swath in front of it, the tree undoubtedly stood with others of the same era which are now gone. Two very much like it died several years ago, according to Ann Mall, one of the property owners nearby. (see story pg.2) This remarkable oak, the remaining "old one," stands on City right of way adjacent to Overbrook Drive. Like people, older city trees need regular care in order to survive.

While inquiring about the oak with the City last year, I learned that Columbus has no adequate funding that will maintain these old treasures, unlike twelve other cities in Ohio including Cincinnati, Toledo and

Cleveland, which utilize a mechanism by which adequate funds are made available to properly maintain their street trees.

In cities having adequate tree care programs, funding is raised through a mechanism called footage assessment. All frontage property adjoining a public right of way is assessed by the lineal foot across the front of the property. According to Bill Fitsch, Forester with the Division of Parks and Recreation, this amounts to about 15 to 20 cents a foot for every homeowner, and pays for the maintenance (fertilization and pruning), planting and removal, when necessary, of trees on city property.

Mr. Fitsch stated that in the City of Columbus, not nearly enough funds are available to take care of the trees because the money coming from the general fund is not earmarked for tree maintenance as funding through an assessment program would be. A mere \$15.00 to \$20.00 a year per homeowner would be enough for the proper maintenance and planting of city trees.

According to Mr. Fitsch, Parks and Recreation are now seriously underfunded, with 4 crews versus the 12 that they need to take care of the trees in the city properly. Jack Lowe, City Forester, said that in order to implement the program in Columbus, their Division will have to prepare an "ordinance of necessity" which would then have to be presented for approval to the Columbus City Council. To this date, an assessment procedure has never been formally presented to Council.

In the case of this particular oak, Davey Tree Company gave the tree deep root fertilization last summer on behalf of Friends of the Ravines.

Salle Cleveland

## Adena Brook Needs Our Help

by Jerry Wager

Adena Brook is struggling to survive. The small urban stream drains about four square miles of Clintonville and an area east of I-71 stretching from just south of Cooke Road to Morse Road on the north and Karl Road on the east.

Since 1993, students have been measuring the quality of Adena Brook's water. For all its problems, the stream is still relatively healthy, supporting a good popula-

tion of minnows throughout the year.

Crayfish have also been seen in the stream. However, the amount and diversity of aquatic insects is very limited, with only two species (crane and midge fly larvae) identified to date.

The intermittent (drying up in summer months) nature of Adena Brook prevents insect colonies from reproducing.

*"...chemical pollution originates from lawns, waterlines and sewage."*

Two species of fish were re-introduced in December 1993, one of which, black nosed dace, survived and have populated several miles of the stream.

### Chemical Pollution.

Most of the public's attention has focused on pollution discharges associated with industries on Indianola Avenue. However, chemical pollution originates from lawns, waterlines and sewage pipe leaks.

Higher than desirable levels of phosphorus have been measured at several locations on Adena Brook, probably resulting from lawn fertilization and air deposition.

Phosphorus is a plant nutrient and helps stimulate the growth of algae, which contributes to the loss of oxygen when it dies and decomposes. Ammonia levels are routinely too high in the stream as well. Ammonia can be toxic to aquatic life when temperatures and pH levels are higher, especially in the summer months.

Sources of ammonia include pet wastes, which are ubiquitous along almost all sidewalks and streets, as well as seepage from broken sewage pipes.

Chlorine is assumed to be a protec-

tive chemical, since it is put into drinking water to kill bacteria. Unfortunately, even at levels of less than one milligram per liter, it can be toxic to aquatic life.

Water line leaks are commonplace in Columbus, especially in older urban areas such as Clintonville.

Chlorine concentrations above toxic levels have been found routinely in Adena Brook over the past four years, especially in areas near High Street.

Every year fire hydrants are opened to purge waterlines; large amounts of chlorine treated water run directly into storm sewers. Monitoring of Adena Brook during these periods has not been done, so it can't be determined if this practice results in fish kills.

Illegal chemical and wastewater discharges from industries along Indianola Avenue have received lots of publicity. They usually result in water discoloration and/or smell, which accounts for their rapid detection and reporting to the City of Columbus and Ohio EPA.

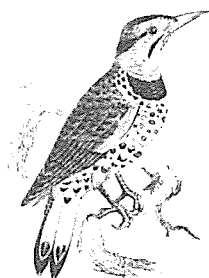
Usually the impacts of these discharges are confined to the eastern half of the ravine area between Indianola and High Street. Correction of these incidents has been particularly costly for some companies, the last of which was Midwest Poultry, Inc.

Ohio EPA has inspected several of those responsible for past discharges. Pollution prevention is a goal of illegal cross connections, improvements in loading practices, and reconstruction of parking lot drainage.

Additional pollutants that have been tested by students are copper and detergents. These tend to be indicative of illegal wash waters connected to storm rather than sanitary sewers, runoff from car washes, and some metal losses associated with high volume roadways, such as I-71.



continued page 6



### Wildlife Caretakers

Ann Mall, a nearby neighbor, whose property adjoins the city's, has lived on the Overbrook Ravine since 1954. She and her family have taken care of the wildlife they've shared the property with in the intervening 44 years.

She remembers that thirty years ago a windstorm knocked over one of the old trees on the hill behind her house. A family of what grew to be yellow shafted flickers, housed in a cavity of the tree, fell with it. The Malls rescued the nestlings and nursed them until they were old enough to fly. Two of the three survived.

Mrs. Mall said that the flickers, having adopted the Mall family as their own, stayed near the house long after they learned to fly and would come perch on their shoulders while they sat on the patio.

The family has come to know, and to care for when necessary, an assortment of raccoons, rabbits and other wildlife since she's lived on the ravine property.

## Sharon Heights - Ravine History

by Grant Hilliker

"No-Name Brook" is a mystery, flowing east to west between the State Schools for the Blind and the Deaf. Its one tributary (running partially underground) runs from north of Lincoln Avenue-parallel to Rush Avenue between Charleston and Kanawha, and into the main ravine.

Never officially named, it is sometimes called "Adena Brook North" due to past confusion with the real Adena Brook which runs through Overbrook Ravine. The stream serves as a storm sewer in the view of officials who share the desire of the Sharon Heights Community Association (SHCA) to preserve or restore it.

In a city that can hardly be said to have much interesting topography, ravines feeding major north-south creeks (Big Walnut, Olentangy, and Scioto) are the exceptions. Our brook long ago dug a deep ravine from east of Sinclair Road across the township to reach the Olentangy River.

It meanders past old trees, gravel banks, and occasional boulders through terrain that is otherwise remarkably flat to produce a floodplain - moderately sloping and without waterfalls - that is typically about 30 yards wide and averages 30 to 35 feet deep.

Researching historical records of what were once southern parts of Sharon Township is almost as interesting as the results.

Accidents of past ownership helped save some of the ravine's natural aspects between Indianola and High Street. East of the railroad, through commercial and light industrial property, and west of High Street, between Graceland shopping center and Wesley Glen retirement home, much of it is damaged or destroyed.

You may not even detect any stream at High Street (or at Indianola), since before getting there it goes underground into conduit built many years ago.

West of the Sears-Orchard store, the city has recently added rocks to riprap

the banks and even built a rock dam, to slow erosion. In doing so heavy equipment had to carve a road into the steep slope and repeatedly churn up and down the stream bed. More work is planned west of Indianola, where SHCA has urged that less intrusive methods be used.

Sharon Township once included a five-mile swath from the Olentangy River east to the railroad tracks, and from Columbus city limits (then at Morse Road) to Worthington village. By the mid-1930's, only a few streets had

yet cut into the farms in this area (See photo below).

It would be nice to go back that far, or farther, and see woods and fields where now are service stations, billboards, asphalt, and lawncare problems. But at least part of the ravine preserves that memory, as it also absorbs developmental runoff.

The State Schools of the Deaf and of the Blind, fronting Morse Road and High Street respectively, now straddle the ravine. Old maps show that the north side of the ravine east of High Street was successively owned by D. Parmilee



View of the State School of the Blind and Deaf properties circa 1938. High Street is to the left. Elks Lodge Golf Course. The ravine and stream run through the central portion of the photo.



(1842), J.L. Gordan (1883) and by Milton Smith (1910). The Franklin County Auditor's database shows title going in 1921 to the Columbus (now Grove City) Elks Lodge golf course.

Thereafter, this piece went to Glenn Brown in 1931 and to the State of Ohio on July 21, 1944. Not until 1953 were the two state schools relocated to the area between Indianola Avenue and High Street, north of Morse Road, the Blind School property situated near High Street and Deaf School east of there, near Indianola Avenue. None of the old maps gives a name to the brook which flows through the ravine, transversing the prop-

erty.

The whole area of south Sharon Township was fought over by Worthington and Columbus in the mid-1950's until the City won the annexation of most of it, including schools. The endorsement of Bill 552 (see article page 6) will permit the construction of water towers off Morse Road and grants Franklin County Soil and Water Conservation District a conservation easement on the ravine through the two school properties.

The State Department of Education warns that the easement area will not

become a park open to public use for "hiking or picnicking." The ravine itself and a field at the southwest corner will be posted with "NO TRESPASSING" signs for students' safety, as are other open spaces and school buildings.

On January 28 of this year, a committee of the SHCA recommended that the brook running through the property be aptly named "Bill Moose Run."

Moose was an Indian, the "last of the Wyandots", who lived in his shack alongside the railroad near Indianola and Morse Road until he died in 1937. Moose hunted on the now state-owned grounds during his lifetime. The proposed name will still need to be approved at other levels through the U.S. Geological Survey's Board on Geographic Names.

Grant and Adele Hilliker live north of the ravine. Historian Ed Lentz contributed leads and information for this article.

## ***Preservation at Hand for Ravine***

by Chris Kasselmann

Clintonville's northernmost ravine and stream will be protected from further development as the result of legislation introduced by Representative E.J. Thomas in August. House Bill 552 authorizes a conservation easement for land currently owned by the State of Ohio's Department of Education.

The Franklin County Soil and Water Conservation District board of supervisors voted in July to secure the easement on the properties that are home to the Ohio State School for the Blind and the Ohio School for the Deaf.

The easement will encompass the ravine and stream which flows through the property, including approximately 75 acres of State owned property from Indianola Avenue west to the boundary of the Ohio State School for the Blind property, approximately 1200 feet east of High Street.

The Department of Education has joined together with Representative

Thomas, 

continued page 7



photo and Indianola Avenue to the far right. White areas are the sand traps which were part of the eroded by wooded areas.

Neither of these pollutants has been found in high enough concentrations to cause concern.

### Habitat Modification.

Although the impacts associated with chemical pollution have been devastating, Adena Brook has shown a resilience and ability to recover, as long as the pollution sources are corrected.

The gradual elimination of illegal discharges by industries in the Adena Brook watershed, less use of lawn fertilizer, and cleaning up after pets can reduce the incidences of poorer water quality.

Painting "Don't Dump" and outlines of fish on storm sewer inlets reminds residents that yard wastes, oil, anti-freeze and other pollutants should not be placed in streets where they can run off directly into storm sewers.

However, the one area where little progress is being made - which may be the most environmentally destructive - is modification of the stream habitat, primarily by the City of Columbus.

Over the past three years, the city has channelized over 1000 feet of Adena Brook with concrete and riprap (large rocks).

All of this work has occurred in the most environmentally sensitive parts of the Brook - the ravines between Indianola Avenue and High Street and in Whetstone Park. These activities are more harmful than chemical pollution because they are practically irreversible.

Once the channel has been altered by "hardening" the natural banks with rock and the in-stream habitat (like fallen logs) removed, Adena Brook acts like a drainage ditch and not as a stream.

Modified portions of the stream will generally only support the most pollution tolerant forms of life such as simple algae, leeches, and snails.

In public meeting after meeting, city officials continually refer to Adena Brook as a "ditch". In their minds, it has



Students perform water quality sampling in Adena Brook.

but one function, to move storm water. "Natural" stream channels with their meandering, curving paths, deep pools

*"Once the channel has been altered by "hardening" the natural banks with rock and the instream habitat (like fallen logs) removed Adena Brook acts like a drainage ditch and not as a stream."*

and hiding places from fallen trees are seen as less efficient water movers.

However, natural streams are scenic, and they provide habitat for fish and other wildlife. Surprisingly, they can be far less costly to maintain when their flood plains are protected and not built upon. This is true of Adena Brook's ravines.

They provide areas for floodwaters to spill out, dissipating the destructive energy of floods and nourishing the plants that inhabit ravine bottoms. They also absorb many of the pollutants in storm water, as well as the large sediment loads associated with heavy rains.

However, when banks are hardened with riprap or concrete, all the stream's energy is confined, producing more erosion and possible property destruction farther downstream.

Streams become less sinuous, adding to the problem. They also tend to down cut their beds, reducing their connection to the floodplains. Habitat is lost, along with the dependent aquatic species.

The city intends to dump even more

storm water into Adena Brook, adding water from the east side of I-71 and areas south of Indianola Avenue. This additional water will aggravate channel erosion problems, and create stronger "ratinales" for more riprapping of more of the stream.

Some of this storm water now percolates into the ground and is discharged slowly to the stream, helping to maintain cooler, more sustained stream flows.

Denying rain water to the water table will hasten Adena Brook's complete biological collapse, since there will be no water, even in pools, to help fish survive the dry summer months.

While traditional engineering theory subscribes to the belief that natural streams in urban areas don't work, a more innovative approach has been taken in Whetstone Park over the past three years.

Previously mowed areas next to creek are being allowed to grow again, providing deeply rooted vegetation to hold banks in place and provide shade and habitat to the stream.

Concrete debris along the stream is being removed, and the Brook put back into a more sinuous, or curving geometry. Surprisingly, there is less erosion now in areas without rock-lined banks.

### Conclusion.

Would Overbrook Ravine be as beautiful and diverse with a dry, rock-lined stream bed? Certainly we are moving in that direction.

If the alteration of the Brook is allowed to proceed, further chemical sampling will be of little value, since most aquatic life will no longer be present due to habitat modification. This seems like a very sad legacy for the children of Clintonville at a time when educational institutions in the community are beginning to discover what an important resource it has.

## Glen Echo Ravine Gets More Concrete

In the aftermath of work carried out by the City of Columbus Division of Sewers and Drains this fall, the Glen Echo Ravine has lost more natural vegetation and the slopes have been further "concreted" (See photo).

The fundamental problem with work carried out by the Division is the apparent lack of concern for the ravine environment. In fact, while other cities such as Milwaukee, Wisconsin already have plans in place to remove concrete from their urban streams, Columbus continues to line the stream bed and banks with concrete and in the process, further degrades a natural resource which needs to be preserved and protected.

The problem stems from the fact that

among their objectives.

Traditional bank stabilization by concrete and riprap not only causes an aes-



Area behind Tim Hortons on High St. where the City completed work last fall.

thetic transformation of a diverse natural environment to a sterile one of concrete and riprap but also removes the well adapted qualities of soil stabilization inherent to native vegetation. Loss of wildlife habitat, water quality degradation and loss of instream life are among the other resulting impacts.

A stream-channel maintenance system needs to be adopted by the Division of Sewers and Drains which takes into consideration the protection of what's left of the natural environment in our ravines. But that kind of approach appears to be nowhere on the horizon.

I would suggest that those in charge of reshaping our ravine environment read and adopt the principles put forth by Ann Riley in "Restoring Streams in Cities," which explains every aspect of and

reason behind restoring the environment of our urban streams.

Much of this information taken from the book "Restoring Streams in Cities" by Ann L. Riley.

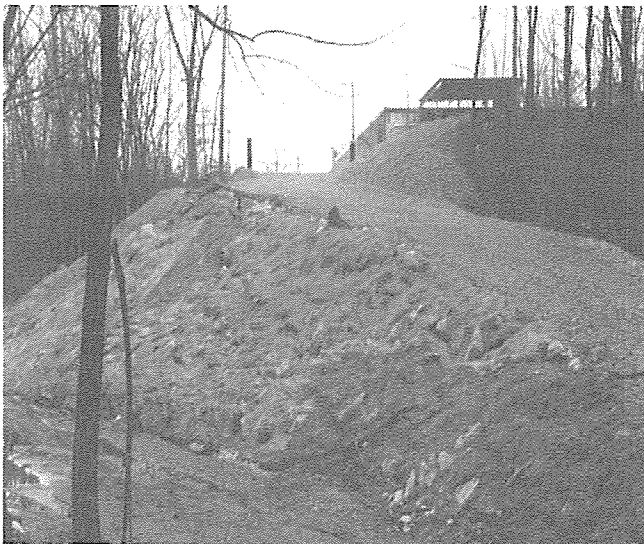
the (FSWCD) and the Ohio Department of Natural Resources (ODNR) as parent agency of the District) in a commitment to preserving in perpetuity the last remaining undeveloped ravine in northern Columbus. The agencies are now exploring various funding mechanisms that will help address some of the land management issues on the property. These include previously dumped materials and stream bank erosion that has resulted from stormwater runoff from increased development in the watershed during the 1980's.

Also included in the Bill is the conveyance of 1.3 acres to the City of Columbus for the construction of two water towers. The Clintonville Area Commission (CAC) and the Sharon Heights Community Association (SHCA) had adamantly opposed this project, passing resolutions last year urging the city to reconsider alternative sites. When it became clear that the city would not change its position, Representative Thomas began working with the various agencies and organizations involved to achieve a resolution that would protect the stream and green space and prevent further degradation of the ravine caused by development.

Although the water tower will not structurally impair the ravine, many residents continue to view them as an aesthetic scar and a use incompatible with the natural ravine resource. However, the mitigation provided by the easement's protection of approximately 200 acres and the land management expertise and financial resources that will follow from the FSWCD and ODNR are seen by the community to far outweigh the loss on the 1.3 acres.

These sentiments were expressed by the SHCA when it passed a resolution November 18 supporting House Bill 552. And Paul Carringer, SHCA's representative to and chairman of CAC, has publicly expressed his gratitude to Representative Thomas for his defense of the community and its request to protect this unique resource.

The bill was passed by the Ohio House of Representatives on February 1st of this year and on March 17th was passed by the Senate. The bill is now awaiting the Governor's signature.



Area behind Tim Hortons on High St. showing road construction into the ravine where the City completed work last fall.

the stream has long been regarded by the City as simply a stormwater channel, or ditch, and the primary purpose assigned to it has been to convey storm water during rain events. Conventional stormwater and flood control engineering does not include aesthetics or ecological values

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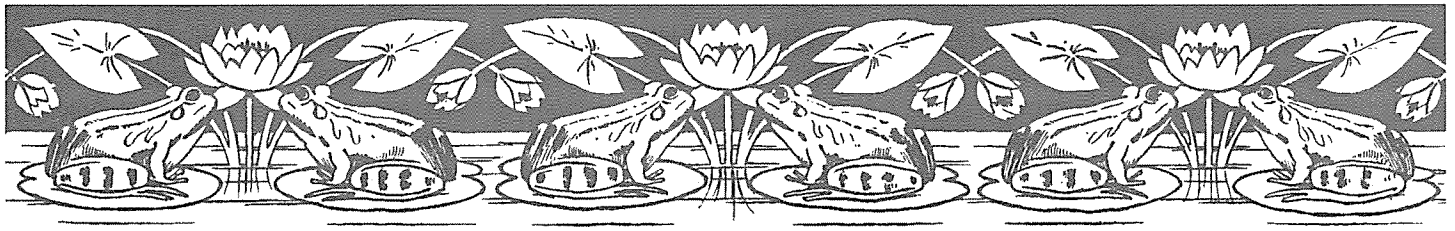
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