



# RAVINIA

*An Advocate for Community Resources*

Published by Friends of the Ravines (FOR)

Spring/Summer 2020

## Ravines are Forests to Save

by Maureen Lorenz

As E. Lucy Braun states in her definitive Woody Plants of Ohio, "Native or indigenous plants are those which occur (or did occur within the period represented by Ohio herbaria) naturally in Ohio. They grow where they do because of natural forces." (Braun. 1961)

Presumably, some of the natural forces at work are water, weather, and landforms. After the last glacier went through Central Ohio about 10,000 years ago, water created our system of rivers and drainage patterns. Water also carved the ravines.

To find the perfect definition of ravine is a difficult task. The dictionaries define ravine

as a steep-sided landform bigger than a gully and smaller than a canyon. I know from my childhood roaming around in the woods, ravines carry a meaning for me that is so much more.

Besides the steep slopes, there is often water involved. In Central Ohio, most of our streams run north/south and our ravines run east/west. This gives the ravines north and south facing slopes. Ravines are often connected to our lower lying drainage streams and also lay in the direction of the prevailing winds. All these factors can make for unique microclimates and create areas of very diverse flora. Because of their steepness,



*A local area ravine*

*Courtesy of Maureen Lorenz*

ravine slopes are often less disturbed and, therefore, can harbor a rich seedbank or be a refuge for once more common flora.

The connection of ravines to streams creates buffer areas for wildlife to move around more safely even within an urbanized area. The biodiversity of species is generally higher in a ravine than the surrounding area because of the variety of habitats, microclimates, and water.

One of the most ubiquitous features of our ravines seems to be the presence of trees. Ravines are considered scenic and desirable

as part of a development. Their steep slopes create challenges and expense for development, as well. These attributes afford ravines a greater chance to be left as an amenity during development.

It is often more comfortable and, therefore, desirable for humans to live around ravines. The presence of the trees in the ravines brings shade creating cooler climate areas. These trees can direct breezes and a host of other significant factors that are important during a time of increasing Heat Index days.

*continued on page 3*

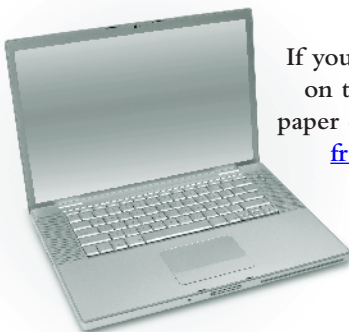
## LETTER FROM THE CHAIR

**B**ig changes came to our community from a very small source this year. The corona virus is impacting the lives of virtually all central Ohioans now and for the foreseeable future. Area ravines have seen more visitors than I ever recall as people do their best to abide by shelter-in-place orders and social distancing. This pandemic demonstrates the need for greenspaces in our community. As Columbus continues to grow, we should be planning for more and better parks. Not just parks with playgrounds and athletic facilities, although these features are popular and should certainly be part of the program. Parks without these features provide an important purpose; unscheduled time to recharge the batteries of the soul and calm the anxieties of our busy lives. Here's a happy thought! The pandemic has been difficult for many, but it seems that dogs may be having their day in the sun. With non-essential workers furloughed, many, many pets are able to enjoy more leash time. Fresh air is good for both our four legged friends and us.

Friends of the Ravines did enjoy a small victory since our last issue of *Ravinia*. In the autumn of 2019 there was a contentious zoning case for a "grab & go bakery" that was planned for the corner of Cliffside Drive and Indianola Avenue on the former site of an old Sohio gas station. The proposal came before the University Area Commission and then needed approval from City Board of Zoning Adjustment (BZA) to proceed. The owner needed a parking reduction from 35 to 10 spaces, a variance from requirements for trees and landscaping and they sought a reduction of the setback from Indianola Avenue from 10 feet to 0 feet. It seemed there was a good amount of community support for the project, but a patio was proposed that would bring the building dangerously close to the 30-foot cliff for which Cliffside Drive was named. FOR opposed the patio addition knowing that there would be impacts to Glen Echo Ravine from litter, noise and lighting. The City did approve all of the variances sought by the owner, but they added a condition that the patio shall not encroach into the ravine. We hope the owners will see Glen Echo Ravine as an asset for their restaurant and respect BZA's restriction.

I hope to see you in a ravine soon.

Alice Waldhauer



If you would prefer to read *Ravinia* on the Web instead of receiving a paper copy, please send an e-mail to [friendsoftheravines@gmail.com](mailto:friendsoftheravines@gmail.com) and let us know.

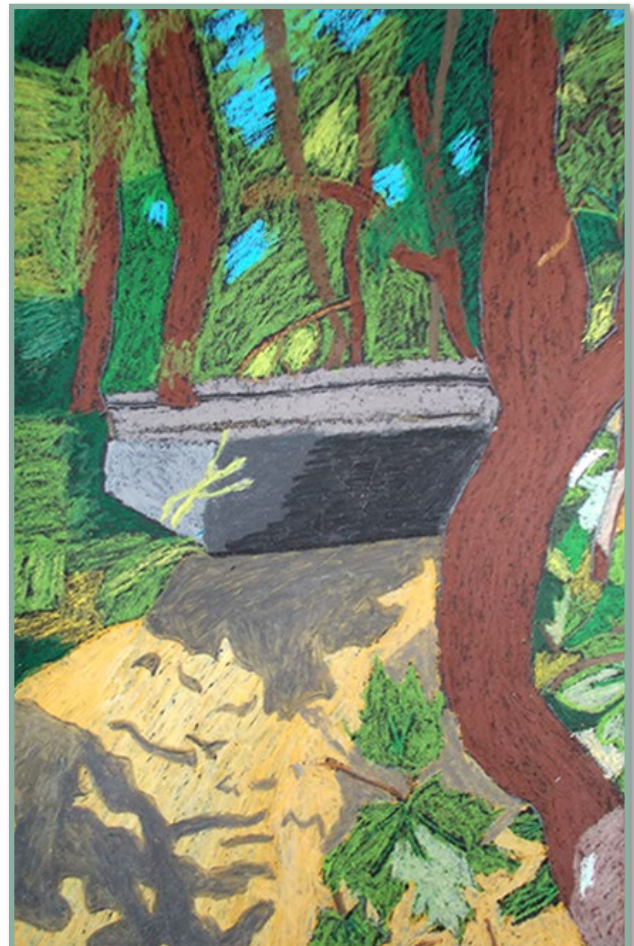
We'll e-mail you when a new issue is ready to read.

## RAINY SPRING

*Christine Hayes*

Nature's dress is in a mess,  
A hillside full of squish,  
The rain begets small rivulets,  
I look up from tea and dish.  
Myrtle shouts out, "Green, green, green!"  
Hyacinth murmurs pink and grape,  
Daffodil utters butter, long stems careen  
From moist heads in downward drape.

Nature's cape falls from her nape,  
Old leaves compress into the loam,  
Warm and wet we don't regret,  
For mushrooms make loam their home.  
Morels we scramble with the eggs,  
The onions, succulent, home-grown chives,  
We drink spring's flavors to the dregs,  
The air, the soil, the skies.



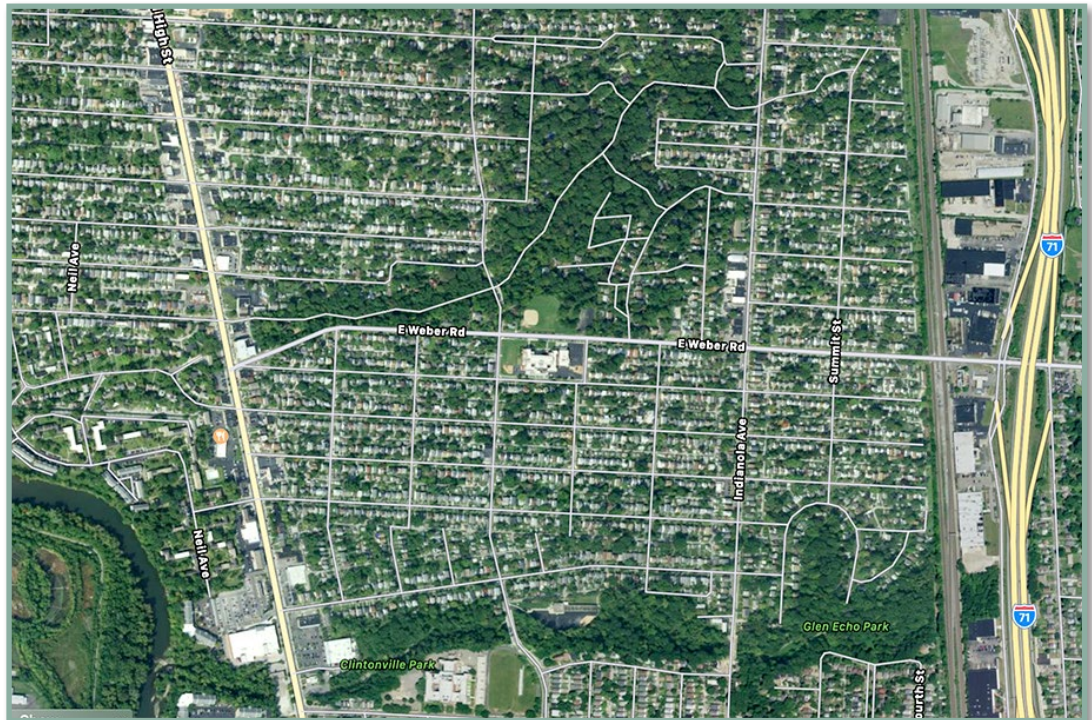
*Ravine Art Contest 2016 entry from the Columbus Gifted Academy*



Doing a fly-over of Franklin County via Google Maps or GoogleEarth you can almost locate ravines as the remaining areas of dense tree stands.

For all the reasons above and more, ravines need protection. These unique landforms need to be conserved along with their major living component, the trees.

As land-use has changed surrounding the ravines, it is likely that native tree species exist within them. The area around Glen Echo Ravine is densely developed, and has had it's natural drainage area doubled by connecting storm sewers to carry double the amount of water. And yet, black oak (*Quercus velutina*)



*Ravine Forests, Cols., OH*

*Courtesy of Google Maps*



*Black Oaks in Glen Echo Ravine*

*Courtesy of Maureen Lorenz*

and hydrangea (*Hydrangea aborescens*) can be found within the ravine. Black oak, once common, is all but extirpated from the surrounding area.

There is a new focus on trees for another reason: trees can mitigate climate change. As trees grow, they absorb the carbon dioxide emissions that drive climate change. According to Tom Crowther at ETH Zurich who studies ecosystem ecology, planting 1.2 trillion trees worldwide could reduce atmospheric carbon by 25 percent. The idea of planting one trillion trees by 2030 even made it into a speech mention by President Trump at Davos.

The tree canopy in Central Ohio has been recently ravaged by the emerald ash borer (EAB) infestation, development, and invasive species. Over 200,000 ash trees have been lost from the urban forests. Concerned about the impact of tree loss, in 2015, the City of Columbus conducted an Urban Tree Canopy Assessment study. The outcome found Columbus has an average tree canopy cover of 22%. Most scientific studies recommend 40% canopy cover to sustain quality of life in urban areas. The recommendation from this study was to have no net loss of existing canopy and identify areas to plant trees to increase canopy cover.

The City of Columbus is now embarking on a new endeavor, the Urban Canopy Forestry Master Plan. The tenets of the plan are to recognize the tree canopy importance to climate resiliency, maintain the benefits to Communities, strive for equity, and to offset the impacts of expected population growth. This requires a plan and partners and politics to implement.



The current canopy provides Columbus residents over \$36 million in benefits and services each year. Trees are responsible for air quality improvements, carbon absorption, and stormwater interception. Each of these benefits has far-reaching benefits on multiple layers to human health and economic impact.

Paraphrasing liberally from the Master Plan background information regarding tree canopy services, trees reduce water pollution and improve water quality by capturing water on leaves and slowing down runoff. An individual mature tree can intercept 500 gallons of rainwater per year. Forested ground absorbs rainwater. Increasing impervious surfaces especially at the expense of forested areas acerbates the negative impact of storm runoff on storm sewers and natural systems.

Trees can remove up to 60% of street level contaminants in the air we breathe. This translates to cleaner air where trees are present, an obvious benefit to people with breathing impairments.

The cooling affect of one, healthy mature tree can provide the equivalent of 10 room-sized air conditioners running 20 hours a day. Well-placed trees on property can provide a significant savings in energy use.

Studies show that consumers will stay and shop for a longer period of time in shaded and landscaped business districts. Not only will they shop longer, but consumers will pay more for the goods and services in these areas.

At my former days of reviewer for Development in City of Columbus, I'll never forget the developer of an apartment complex who opposed my request to keep a small stream and little ravine open, rather than pipe and fill. He ended up changing the layout to produce the same number of units, but leaving the greenspace and trees along the stream in place in a 50-foot minimum buffer, each side. He called me later and said



Aerial of Conservation Buffer: Ravine Saved

Courtesy of Google Maps

## City of Columbus Geographic Summary: Planning Areas

This table summarizes the UTC metrics by Columbus, OH Planning Areas in Acres and % including Urban Tree Canopy (UTC), Possible Planting Area Vegetation (PPA Vegetation), Possible Planting Area Impervious (PPA Impervious), Total Possible Planting Area (Total PPA), and Areas Unsuitable for Planting (Unsuitable)

Table 19: Planning Area Assessment Results

Plan Area ID	Plan Area Name	Total Land Acres	UTC Acres	UTC %	% of Total UTC	PPA (Veg.) Acres	PPA (Veg.) %	PPA (Imp.) Acres	PPA (Imp.) %	Total PPA Acres	Total PPA %	Unsuitable UTC (acres)	Unsuitable UTC %
1	Hayden Run	2,360	327	14%	1%	557	24%	283	12%	840	36%	1,320	53%
2	Far Northwest	4,405	1,332	30%	4%	1,352	31%	374	8%	1,726	39%	1,379	31%
3	Far North	5,264	1,079	20%	3%	1,491	28%	1,000	19%	2,491	47%	1,762	33%
4	Rocky Fork-Blacklick	6,923	2,099	30%	7%	2,399	35%	580	8%	2,979	43%	1,973	28%
5	Northwest	5,603	1,301	23%	4%	1,363	24%	726	13%	2,088	37%	2,407	42%
6	Northland	8,322	2,093	25%	7%	2,603	31%	1,245	15%	3,847	46%	2,446	29%
7	Far West	4,542	468	10%	2%	1,403	31%	749	16%	2,152	47%	2,008	44%
8	West Scioto	4,575	1,182	26%	4%	1,322	29%	502	11%	1,824	40%	2,015	40%
9	West Olentangy	4,432	1,001	23%	3%	1,168	26%	751	17%	1,918	43%	1,760	38%
10	Clintonville	3,880	1,600	41%	5%	990	26%	255	7%	1,245	32%	1,074	27%
11	North Linden	5,867	1,880	32%	6%	1,835	31%	503	9%	2,338	40%	1,670	28%
12	Northeast	7,237	1,277	18%	4%	2,189	30%	1,110	15%	3,299	46%	2,911	40%
13	Near North/University	2,607	515	20%	2%	402	15%	414	16%	816	31%	1,318	50%
14	South Linden	4,507	959	21%	3%	1,400	31%	558	12%	1,958	43%	1,601	35%
15	Hilltop	7,807	1,777	23%	6%	2,274	29%	949	12%	3,223	41%	2,830	36%
16	Frankinton	1,787	292	16%	1%	471	26%	252	14%	723	40%	900	47%
17	Greenlawn/Frank Road	3,741	713	19%	2%	1,366	37%	330	9%	1,696	45%	1,536	39%
18	Downtown	1,497	108	7%	0%	157	10%	361	24%	518	35%	929	60%
19	Near East	2,310	573	25%	2%	538	23%	211	9%	749	32%	998	43%
20	Eastmoor/Walnut Ridge	6,235	2,079	33%	7%	1,888	30%	436	7%	2,324	37%	1,884	30%
21	Far East	4,449	1,074	24%	3%	1,588	36%	635	14%	2,223	50%	1,191	27%
22	Near South	6,003	1,118	19%	4%	1,416	24%	686	11%	2,102	35%	2,985	48%
23	Far South	7,104	1,415	20%	5%	2,600	37%	704	10%	3,304	47%	2,739	37%
24	Eastland/Brice	9,478	2,347	25%	8%	3,094	33%	1,153	12%	4,247	45%	3,132	32%
25	Westland	7,764	1,036	13%	3%	2,329	30%	813	10%	3,142	40%	3,730	47%
26	Rickenbacker	6,176	1,047	17%	3%	1,595	26%	361	6%	1,956	32%	4,043	57%
27	Southeast	4,559	450	10%	1%	1,741	38%	166	4%	1,907	42%	2,319	50%
TOTALS		139,435	31,143	22%	100%	41,533	30%	16,106	12%	57,639	41%	54,859	38%

2015 Columbus Canopy Assessment by PlanIT Geo, Arvada, CO.

he couldn't believe how quickly his apartments were being occupied, especially the units overlooking the greenspace.

One of the more alarming statistics for Columbus is its ranking as the #2 city as an heat island and associated health risks from that effect. Trees have the power to absorb carbon, provide shade, and act as an air purifier has been demonstrated in numerous studies. Individuals with access or views to greenspace tend to be healthier. Patients recover faster with fewer drugs with only a view of greenspace.

The presence of trees in urban areas has been demonstrated to slow traffic and make streets more walkable. Reduced speeds and trees located in street islands create a buffer for pedestrians to feel safer.

Urban areas with street trees present see less graffiti, vandalism, and littering than areas with no street trees. Buffers of trees also reduce not only pollution but also noise. A buffer along highways of 100 feet depth and 45 foot height can reduce highway noise by 50 percent.

Trees lead to stronger communities. This statement might be less quantifiable but there are studies that show residents in areas with trees socialize more and feel safer. One of the more severe discrepancies of the Urban Forest Canopy is equity.

Columbus developed a system of treed greenspace buffers along the streams that not only support

and protect water quality but also offer wildlife habitat in an urban area. These connected greenspaces protect the fly-way designation by the National Audubon Society for migratory birds. These treed greenways provide critical stopover habitat during spring and fall migration, Glen Echo Ravine has a fair number of mature trees, especially oaks, providing habitat for breeding birds that are uncommon within the city limits and serves as a foraging area for winter residents. A bird walk in Glen Echo revealed as many warbler species as sighted at Magee Marsh, an ODNR wildlife area on the shores of Lake Erie. A healthy wildlife population indicates a healthy place for people to live, too.



With all these benefits and more, trees are important. Trees are also living. One of the recommendations from the 2015 Tree Canopy Assessment study was to have no net loss to the tree canopy. The Master Plan is the next logical step in identifying the vision of our future. The decisions that are to be made will involve changes to our current business conduct. Having buy-in from the Community as a whole is part of the plan.

The City is tackling on another front reduction in carbon emissions. This effort along with growing the tree canopy will have the quickest and most significant chance of success against climate change, heat island effect, and maintain a diverse and healthy environment.

Planting trees is always worthwhile and will have significant challenges. In fact, reforesting the earth may be the best way to accomplish a healthy planet. Most of the planting sites for new trees, however, are on private property. The only way to accomplish this is to reset values and create partners.

With our current system of property rights and privileges, much needs to change. A master plan that makes the case to the community can make all the difference.

Maintaining the existing tree cover is a major component of the change needed. Reviving and developing the 21st Century Druid practice of revering Nature and particularly trees is an option seldom mentioned for some reason. Options that have been implemented include the 2015 Executive Order instructing City of Columbus projects to preserve existing trees or replace them. Perhaps we need to develop new “Tree Banks” of mature existing trees to operate similarly to a wetland bank. If a tree is to be removed, a similar sized tree or trees are preserved and protected elsewhere, but within the

*Tree-hugger Druid in Training*

*Courtesy of Maureen Lorenz*

impact area to keep the benefits in the Community. Strategies need to be developed to begin to offset the loss of existing trees from the canopy.

The forested ravine areas are identifiable on aerial maps of the City. It is important to focus on these areas and encourage Conservation Easements or protected Greenspace for these areas. Preserve these areas and we preserve their trees, and so much more in our start to the Future.

Information about the Columbus Urban Forestry Master Plan can be found at:

<https://www.columbusufmp.org/get-involved.html>

#### **References and More Reading:**

The Woody Plants of Ohio. E. Lucy Braun. Ohio State University Press. Columbus. 1961.

The Urban Forestry Master Plan: <https://www.columbusufmp.org/get-involved.html>

<https://www.historic-uk.com/HistoryUK/HistoryofWales/Druids/>

Executive Order 2015-01: <https://www.columbus.gov/Sustainable-Columbus/Trees/>

“Richard Powers on the Standing of Trees”: <https://www.thenation.com/article/environment/richard-powers-overstory-great-smoky-mountains/>

“A Trillion Trees”: <https://www.nytimes.com/2020/02/12/climate/trump-trees-climate-change.html>

Urban Tree Canopy Assessment, Columbus, Ohio. 2015: [https://issuu.com/planitgeoissuu/docs/columbus\\_urban\\_tree\\_canopy\\_assessme](https://issuu.com/planitgeoissuu/docs/columbus_urban_tree_canopy_assessme)





# The Rush Run Landscape in Worthington

by Sherrill Massey

Two ravine streams traverse the City of Worthington in Franklin County: Tucker Creek and Rush Run. There are other smaller creeks crossing these streams that flow east to west to the Olentangy River.

The headwaters of Rush Run are in a retention pond north of I-270 at Lakeview Plaza Boulevard in the Campus View Development, dating back to 1986. The Franklin County Road Map Atlas does not usually show retention ponds as those types of water features are not generally a good match for the map due to scale limitations. The maps tend to focus attention more on roads, road labels, and jurisdiction information. Typically, that information would have to be updated through photogrammetry, according to Franklin County Engineering cartographer, Ben McCown. He is not sure if anyone updates that information from development plans, however the Franklin County Auditor's website does show retention ponds.

The stream travels south and west about two miles to Rush Run Park on the eastern edge of the Olentangy River, its terminus. Rush Run Park is designated a nature preserve of the City of Columbus. A nature preserve brochure states:

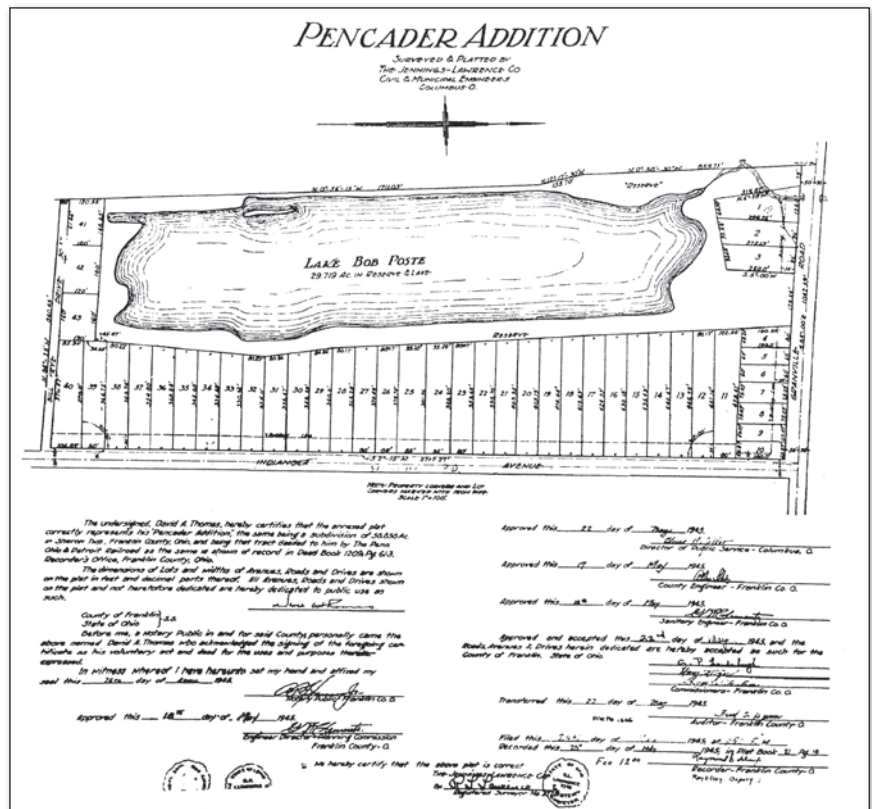
The confluence of Rush Run and the Olentangy River has an excellent diversity of flora. This preserve is mostly comprised of riparian woods with a variety of hardwoods including tulip, cottonwood, sycamore and sugar maple. The state potentially threatened nodding rattlesnake root can be found at Rush Run. Rare and interesting species include: Nodding Rattlesnake Root *Prenanthes crepidnea*, Bluebreast Darter, *Etheostoma camurum* and Belted Kingfisher, *Megasceryle alcyon*. <https://www.columbus.gov/Sustainable-Columbus/Nature-Preserves/>

East of that Park is Walnut Grove Cemetery, established 1859 and owned by the City of Worthington since 1931. Rush Run has eroded the edge of the historic cemetery.

Rush Run is historically known for Rush Creek Village that applies to the 49 houses that were constructed mostly between 1954 and 1976 along with 30 acres of rolling ravine land. The ravine topography influenced the designs of individual houses, as well as layout of property lines and streets. Many houses are sited for bank views overlooking Rush Run and its tributaries. The designs of the houses were designed by Architect, Theodore Von Fossen who was influenced by Frank Lloyd Wright (see <https://www.friendsoftheravines.org/wp-content/uploads/2014/05/Fall-2004-Winter-2005.pdf>)

Additionally, traversing the landscape but in more straight lines are railroads. As railroads developed in the county often a ravine was filled in to support the track being built. If there was a ravine stream it would sometimes be put in a culvert to let it flow through. If a stream is not covered and open it is called "day lighted." Many streams have been covered and put in culverts for development.

There is no shortage of railroad enthusiasts and having the Ohio Railroad Museum near Rush Run is a unique location as there is a description of *Worthington Culverts—History and Physical Description of the Rush Run Culvert System* by Martin Davis & Alex Campbell, exploring how the railroads were challenged by Rush Run. <http://www.columbusrailroads.com>



1945 Subdivision plan, Sharon Township

I was curious about the Bob Poste Lake near Dublin-Grandville Road (161) east of Rush Run featured on a Franklin County Road Atlas and its relationship to Rush Run.

A Columbus Dispatch, August 12, 2007 story by Kevin Kidder explains the lake: *Private paradise—Bubbling spring makes lakefront living possible in city:*

"It's like a little paradise," said Bob Leonard, 77, who moved to the pocket in 1988. "You can get away from the city, and yet you're in the city. This is a little-known secret."

*Like many lakes in Ohio, this one is manmade.*

*Poste Lake began life around the turn of the 20th century as a gravel pit for the Pennsylvania, Ohio & Detroit Railroad, which used the stone when laying nearby rail beds.*

*"The bulldozer hit a spring and (the pit) filled," said Rod Crane, president of the Pencader Association, to which all the residents belong.*

*Today, trains still rumble by on tracks barely a hundred feet from the western side of the lake. In the 1920s, the railroad allowed a fishing club run by namesake Bob Poste to use the lake.*

*Resident Dwight Moody's home on the north side of the lake incorporates the original log-cabin fishing lodge.*

*In the late 1940s, the railroad sold the land, including the lake, now owned by the homeowners' association.*

*Most of the lots surrounding the lake are narrow but deep, surrounding all but the western side of the lake, where an embankment borders the north-south-running railroad tracks.*

*The association maintains and regulates the lake and surrounding environs. Dues are about \$100 a year.*

A survey conducted in 1945 shows Bob Post Lake as annexed and recorded by Franklin County from the Penn Ohio & Detroit Railroad to David A. Thomas for a subdivision called the Pencader Addition. This lays out the subdivision lots and where Rush Run filled the pit forming lake near Dublin Granville Road and the railroad. In 1947 a transfer was recorded in the Franklin County Auditor's office to the Pencader Fishing Club et al.

Chittenden Avenue in the University area is the beginning of the north/south Indianola Avenue which ends into the private former Harding Hospital site on East Dublin-Granville Road. The hospital was founded in Worthington in 1916 by Dr. George T. Harding II as one of the earliest programs in psychiatric medicine in the United States. The hospital trained hundreds of psychiatrists, social workers, nurses, art therapists and more. In 1999 it was integrated into The Ohio State University Medical Center and then sold to Step By Step Academy, a mental health program for people with autism and developmental disabilities. Currently the campus is owned by Boundless, a private not-for-profit organization which provides direct services and residential options for intellectual and developmentally disabled individuals throughout central Ohio. Rush Run traverses that site from the Rush Creek Village area. Deep shale cliffs on that campus topographically measure over 900'. <https://engb.topographicmap.com/maps/lpdq/Columbus/>

The Ohio Railway Museum overpass at Dublin Granville Road and offers a history of the railroad at this site and others. Founded in 1948, The Ohio Railway Museum is one of the oldest railroad museums in America. The museum began with the acquisition of Ohio Public Service Interurban Car #21, which is now listed on the National Register of Historic Places. The museum is designed to educate through displays and demonstrations, the role and effect of the railroads in the life of the people and businesses of Ohio and the United States. <http://www.ohiorailwaymuseum.org> Railroads were formed to move goods in and move goods out. Factories were often built near with a railroad spur to a loading area to move out again with the goods. Railroads often formed the commercial

and industrial spine of a community. This railroad area was Worthington's industrial spine.

Worthington resident for over 60 years, Jim Loeffler, remembers as a boy how he used to put coins on the tracks to flatten them. Some railroad workers would let a few of them switch the tracks under the switchman's control. He said that after the lake filled, the lake became useful for the railroad would take on water from the lake to fill the steam engines but when steam engines changed to diesel the water was no longer needed and the railroad sold the property to the neighbors. Loeffler says that sometimes a train would be a mile long and there could be two engines in front, another engine midpoint and one or more at the end. The number of engines needed would depend on the quantity of cars and weight the train was hauling. It was mostly limestone gravel and coal he recalls.

A surprise find to me was my first visit to Huntley Bowl Park. A Worthington website states: Established in 1986, *Huntley Bowl Park is in Worthington's industrial area and was primarily created as a retention basin for rainwater. The park is 28 feet deep and has a total of 7.5 acres, 3.5 of which are located at the bottom of the bowl as an athletic field. This field is used for soccer and rugby games and occasionally for archery tournaments. One side of the bowl has been modified and functions as a sledding hill. Other amenities include picnic tables and a parking lot at the top of the bowl.* Rush Run skirts the north and west edges of Huntley Bowl Park at the rear of 6225 Huntley Road.

Rush Run heads north to cross Schrock Road, Worthington Galena Road and E. Wilson Bridge Road. On the north side E. Wilson Bridge, Rush Run balloons into a retention pond where the signage on the Commerce Park and Rush Creek Burgers & Brews acknowledge the stream's existence.



480 E. Wilson Bridge Rd. Worthington

Courtesy of Sherrill Massey

A culvert directs it under Interstate 270 as it travels to Sancus Boulevard and finally turns west to Lakeview Plaza Boulevard to end at two retention ponds and find the headwaters of Rush Run north of Lakeview Plaza.

A Worthington annexation map shows that the headwaters of Rush Run was added in 1960 perhaps anticipating the construction of I-270 in 1962 and to capture the entire watershed of the stream. <https://www.worthington.org/158/Maps-for-Download>



# The Importance of Stream Habitat

*By Dennis Mishne*

**W**e live in a society where so many things are expected to be neat and clean, smooth and sleek. While this may be appealing to us, it is a serious problem when applied to nature, especially streams. The removal of trees and other native vegetation along the banks of streams puts a big stress on nature's ability to take care of itself. Let me explain.

Have you ever seen a stream which runs through a housing development? Often there are no trees at all, and the grass is mowed right up to the edge of the banks. When the streams were first aligned and constructed, the banks were graded to a 45 degree angle and planted with grass. Now the original V-shaped channel has a short section of angled bank with a large drop-off down to the water level. The grass-lined banks didn't keep their manicured shape for very long. In farm country there are countless ditches which are lined with grass. In many cases big chunks of the banks have slid off into the channel resulting in steep banks and excess sediment within the stream. While grass prevents erosion from the force of falling raindrops, it is no match against fast-moving water in a stream channel.

In contrast, notice how tree roots hold the banks in place. The best example is the sycamore tree. These monstrous trees often lean at steep angles over the water. Their roots are firmly embedded in the banks, able to hold thousands of pounds of weight without ripping loose from the soil. Willows, cottonwoods, and silver maples are other examples of tree species which grow along streams and help to hold banks in place.

A comparison of tree roots to grass roots shows each plant's usefulness in various situations. Most trees have tap roots which go deep into the ground. Some species have shallow roots which spread out many feet from the trunk and are embedded in the soil. Large roots definitely have a lot of grip. The positive feature of grass is that it has a very fibrous root system capable of holding soil in place from the forces of rain and wind. However, the shallow roots cannot withstand the power of flowing water. For best results, grass should be reserved for areas above the normal bank-full level of a stream, away from the erosive force of flood waters.

Another benefit of trees is that they provide shade for streams. Shade helps to keep water temperatures lower by not letting sunlight directly hit the water. Lower temperatures enable water to hold more oxygen. High dissolved oxygen levels help streams to support diverse and healthy aquatic biological communities. Shade also hinders the growth of algae. Shaded streams have considerably less algae than open areas. In contrast, treeless ditches are often clogged with algae during the heat of summer.

Trees are often the number one source of habitat for life within a stream. Fallen trees, branches and roots provide cover for fish.

Any fisherman knows that structure is a key thing related to fish habitat. Many types of insects live on and within woody debris in the water. Logs protruding from the water provide habitat for turtles to sun themselves. I recently heard a story about a man who cleared out all but one of the fallen trees in the river which ran through his farm. One day he noticed that the lone tree had about 20 turtles sunning themselves on it. That one tree was so important to the turtle population that every turtle in the vicinity flocked to it.

Regarding water quality, a wooded buffer absorbs chemicals and sediment which run off the land. It has been scientifically documented that a 50-foot-wide buffer of mature trees can filter out 95 percent of the phosphorus (fertilizer) from the land before it reaches the stream. The reduction of nutrients is key to reducing algae growth within bodies of water. It is interesting to note that 50-foot barriers are recommended at construction sites near streams. A 50-foot vegetated separation combined with the proper installation of sediment fences is sufficient to keep most construction runoff from entering a stream.

Did you know that leaves play a vital role in the food cycle in aquatic habitats? Leaves fall into the water. Aquatic insects cut, shred and eat the leaves. With food matter available for insects it allows for a large population to be present. This in turn encourages insect-eating fish to be present. If the stream is large enough, predatory fish such as bass will be able to thrive on the smaller fish. The cycle goes even further with fish-eating birds such as kingfishers and great blue herons taking advantage of the bite-sized meals.

Lastly, a wide tree-lined riparian provides shelter and habitat for birds which are dependent upon insects. Flycatchers, swallows and others feed on swarms of insects which hatch from the waters. Branches serve as perching and resting places. Large mature trees provide nests for hawks or squirrels. Old and dead trees provide food and shelter for woodpeckers, mammals and even wood ducks. On the upland-facing side of the riparian, trees provide habitat for land species which live in the transition area between woods and fields.

In all fairness, I must address some of the arguments against having trees in agricultural areas. Tree roots clog drainage tiles. Trees fall over and obstruct stream flow and cause localized flooding on fields. And, trees shade crops. In response to these valid situations, I have been involved in cases where farmers have been encouraged to cut down the trees on the north side of a creek only, thus allowing the stream to be shaded from the trees on the south side. Trees can also be removed only from reaches where they might clog field tiles. Regarding log jams, leaning trees and other potential obstructions, many farmers are turning to methods which are environmentally friendly. Instead of cutting everything down, or bulldozing long stretches of streams, they address only the areas where there are problems.



I hope that we can all see the importance of keeping things as natural as possible. In cases where something needs to be done, let's limit it to just the problem areas. As outdoor

enthusiasts, land owners and environmental stewards, let's do our best to be informed about our environment and work to keep everything in its proper balance.



## The Nature Committee at Wesley Glen loves Bill Moose Run!

by Maureen Lorenz

The Wesley Glen Nature Committee recognizes and appreciates the unique setting they enjoy within easy access to Bill Moose Run and its wooded buffer. The enthusiastic members include a professor *emeritus* from the Natural Resource field at OSU and a self-taught field botanist/lepidopterist as Chairman. They know they have something special in their ravine and have asked Friends of the Ravines to help them document the secrets of their greenspace.

Much is written about the benefits that a natural area offers people who are recovering from illness, grieving, or lonely. Approximately 14% of the US population is 65 years old or older and this number will double by 2060. Along with this, 80% of people live in urban centers with limited access to greenspace. And yet, greenspace offers so many health benefits.

Having a natural area or greenspace nearby leads to better quality of life.

Safe routes and paths to and through a greenspace lead to the likelihood of more walking and mild exercise by older adults. This exercise results in a decrease in complaints of pain, sleep loss, and other problems compared to adults that do not go outside.

The physical benefits are paired with the restorative affects and well-being offered by proximity to Nature. Just to look at a natural area increases mental health and decreases the chance of depression, reduces stress levels, and improves cognitive function. Nature is also particularly effective in helping individuals deal with the loss of a loved-one.

Opportunities for positive encounters while walking or just out watching Nature can increase the quality of life for aging populations. Access to Nature can help alleviate loneliness and isolation while increase social connections.

Recognizing the benefits, the Nature Committee at Wesley Glen had a few initiatives they wanted to pursue to make the best use of their proximity to their greenspace. Their motivation was to enhance the lives of the residents at Wesley

Glen. They wanted to develop activities such as Nature Walks to encouraging walking the path along the Bill Moose Run. Another goal was to identify trees and label them with tags or create a map showing the location of significant trees.



Wesley Glen Nature Preserve Courtesy of Maureen Lorenz

The presence of concretions and glacial erratic along the banks of Bill Moose Run meant they would like to investigate the geology and natural history of the ravine. The final result would be to combine all this information and produce a guide or pamphlet for the use of residents in helping identify butterflies and wildflowers in bloom.

Most striking when walking the existing path through the wooded buffer along Bill Moose run are the giant sycamores. Large pawpaw stands exist in the floodplain of the stream. When you see this greenspace hemmed in by a shopping center, parking lots and buildings, you see how fragile and special it truly is.

This ravine is a treasure and Friends of the Ravines is delighted to be asked to help document all that is there to love.

Invasive species are present and residents have been working to eradicate them. Developing a management plan and augmenting these efforts will help to restore and maintain this greenspace making it possible for the wildflowers to continue to delight.

The Nature Committee Chairman, Bill Conlon, has identified, photographed, and documented many of wildflowers and butterflies present in the ravine. Friends of the Ravines, with the help of knowledgeable volunteers, will continue this effort for the benefit of the residents at Wesley Glen and the health of the ecosystem of which it is a part.

Literature Cited/further reading:

<https://naturesacred.org/nature-seniors/>

<https://www.sierraclub.org/sierra/their-words-elementary-school-kids-why-nature-important>

<https://www.nathab.com/blog/the-outdoors-and-the-elderly/>



# Violent Storms Damage Glen Echo & Walhalla Ravines

*Text by Martha Harter Buckalew  
Photos Courtesy of Chris O'Leary*

On June 8th, FOR's Glen Echo Ravine Liaison Chris O'Leary, sent the following report:

It's been a tough couple of weeks for Glen Echo Park. We lost at least 6 mature trees in the windstorm a few weeks ago, and last week's heavy rain brought heavy erosion. There was so much rain that new channels were carved into the ravine slopes on both the north and south sides. Some of the reeds planted on the sides of Glen Echo Run were torn out entirely. It's difficult to show the scope of the damage in photos, but I've tried to document some of the damage in the pics that I sent. A separate account from Walhalla Ravine reported a number of downed trees and forceful water tearing pavement from Brynhild Drive.





# A Walk Around Walhalla Ravine

By Martha Harter Buckalew

It was with great regret that Friends of the Ravines had to cancel its 2020 Spring Plant Walk. But this photo of our 2017 Spring Plant Walk in Walhalla Ravine recalls better times before the coronavirus. Except for the absence of social distancing, the photo could be taken now: Walhalla stream flows around the bend and walkers admire the graceful slope of ravine walls cradling the water. Walhalla is just one of more than fifty Franklin County area ravines.

What exactly is a ravine? The origin of the word dates back to the 1400s from the French and means torrent. Current dictionaries such as Miriam-Webster, Wikipedia, and Urban Dictionary, give a variety of synonyms and illustrations. Simply speaking, a ravine is a deep narrow steep-sided valley especially one formed by running water.

Some maps of Franklin County, call ravines “ditches.” I presume that the use of this belittling term refers to a ravine with a shallow depth and sparse vegetation. That is not the case with most of Franklin County ravines which are considered very desirable real estate and are noted for their lush vegetation, breath taking depths, and urban wildlife.

In spring of 2020, Glen Echo Ravine Bird Club (GEBC) reported numerous migratory bird species. One birder spotted over 50 species in one day! Ravines also provide refuge for all kinds of bugs and spiders, and

for opossums, skunks, and deer, who, annoyingly to gardeners, consider decorative yard plantings (such as hostas) deer candy.

So what is a ravine? It is many things and it has many attributes, too many in fact to list here. On page 12 of this issue you will find FOR’s mission statement. When we protect our ravines, we protect all of the ravine’s critters, plantings, and landscape. And we are thankful for the richness that the Franklin County ravines bring to our lives.



Courtesy of Sherrill Massey

## YES! I WANT TO BE A SUPPORTING MEMBER OF FRIENDS OF THE RAVINES.

Name \_\_\_\_\_ E-Mail \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_ City/State/Zip \_\_\_\_\_

Indicate any special instructions for listing of your name in the Roster of supporting members. \_\_\_\_\_

**Membership Category** *Make Check Payable to Friends of the Ravines.*

☐ Friend: \$15      ☐ Sponsor: \$35      ☐ Sustainer: \$50  
☐ Contributor: \$25      ☐ Household: \$40      ☐ Patron: \$100      ☐ Corporate (Over \$100) \_\_\_\_\_

I want to volunteer to help Friends of the Ravines carry out its mission to protect ravine areas and educate the public. I can help by:

☐ Distributing *Ravinia*      ☐ Writing Articles for *Ravinia*      ☐ Preparing Mailings  
☐ Assisting with the Website      ☐ Giving Computer Advice      ☐ Helping with Ravine Cleanups  
☐ Planning Events      ☐ Removing Invasive Plants in Ravines      ☐ Becoming an On-Call Volunteer

My special area of expertise is \_\_\_\_\_.

My favorite ravine is \_\_\_\_\_.

Friends of the Ravines, PO Box 82021, Columbus, Ohio 43202  
friendsoftheravines@gmail.com

## Supporting Members:

(September 16, 2019–May 13, 2020)

S.E. Anderson	Melodee Kornacker
Eric & Valerie Barth	Kroger Rewards Program
Maryjo Bole	Sharonah Laemmle
Christine Bratka & Charles Fannin	Patricia Larson
Lynn Boyce	Joanne Leussing
Judith Boyland	Susan Logan
Paul & Deborah Brower	Alan Magnuson
Dale Brubeck	Frank & Karen Martens
Martha Buckalew	Sherrill & Charles Massey
Jeanne Budde	John & Carla Matthews
Eric & Linda Burden	Beverly May
Stephen C. Burson	Carrie Morrow
Ciel Conrad	Jacqueline R. Pasternack
John A. Cooley	Sam & Kerry Pathy
Philip & Barbara Courtad	John Paulson & Barbara Hotchkiss
Gregory Cunningham	Laura Plachta
Laura Daniel	Leah Reibel
Donna Sigl Davies	Margaret Ann Samuels
Patricia Eiben	Doreen Uhas-Sauer
Joyce M. Fasone	Edda Schurter
Barbara Fleming	Pete Taylor
Robin Frees	Olga Tebben
Kevin George	Adam Wagenbach & Kathleen Murphy
Mary & Frank Graziano	James & Virginia Wagner
Jane Gross	Colleen M. Weaver
Barbara June Hunt	Diane Weeks
Karen E. Irving	Mary Wiles
Karen A. Jennings	Mary & Jesse Williams
Tim & Lena Jochim	Scott Wolf & David Wolfe
Stuart Klapp	Joseph & Sarah Zarick
Andrew Klein	
Don Kloss	
Nancy S. Kremer	

Ravinia  
P.O. Box 82021  
Columbus, Ohio 43202



*Ravinia* is the official publication of Friends of the Ravines.

### CONTRIBUTORS

Martha Harter Buckalew	Maureen Lorenz
Emily Foster	Chris O'Leary
Sherrill Massey	Dennis Mishne
Christine Hayes	Alice Waldhauer

### FRIENDS OF THE RAVINES BOARD OF TRUSTEES

Martha Harter Buckalew	Maureen Lorenz
Sherrill Massey	Carrie Morrow
Alice Waldhauer	Jeff Yakes

Friends of the Ravines is an all-volunteer non-profit 501c3 organization whose mission is to foster the protection and restoration of ravine areas in Franklin County through community education and conservation.

Website: [www.friendsoftheravines.org](http://www.friendsoftheravines.org)  
e-mail: [friendsoftheravines@gmail.com](mailto:friendsoftheravines@gmail.com)



Find us on Facebook



## Thank You:

### Assistance & Support

Clintonville Beechwold Community Resource Center  
Indianola Informal K8 Science Class and  
Teacher Jarad Laughbaum

### Operation Assistance

Kenwel Printers  
Proofreaders

### Special Thanks

Jim Loeffler, Assistance with Rush Run Article  
Teel Slike & Ben McCown, Franklin County  
Engineering

### Ravinia Design & Production

AJaX Designs



100% recycled paper, 20% post-consumer waste