

## The President's Pen

By Jaclyn Rhoads, DCVA President



Many people are concerned about the potential contamination that may exist in Lower Norwood. The Environmental Protection Agency was contacted by residents regarding their concerns with a cancer cluster in the portion of Norwood that is closest to what was formally used as an informal landfill site almost 50 years ago. DCVA requested a brief review of EPA's preliminary site inspection to help get a better sense of what they found at the site. The land of concern is adjacent to the Muckinipattis Creek which is part of the Darby Creek Watershed.

A preliminary review of EPA's report on the Norwood Landfill (Final Site Inspection Report Norwood Landfill, Norwood, Delaware County, Pennsylvania, Weston 2018) was conducted for DCVA. There were no samples collected from the residential yards, parks or schools. However, based on the data collected in the undeveloped areas in proximity to the residential area, which show contamination exceeding EPA's acceptable screening levels, the EPA concluded "there is a contaminated soil source at the Site". All of this indicates that additional sampling is needed to understand the extent of contamination at the Site and potential health risks for the residential neighborhood.

### Here are some of the issues:

1. **The samples collected were inadequate.** It appears the samples collected are not adequate to determine whether the site is causing negative impacts on the health of residents in the nearby neighborhood.

- There were no soil samples collected in any residential yards, parks, or schools, despite EPA indicating that "the site consists of a suburban residential neighborhood." All soil samples were collected in undeveloped areas of Tracts 24 and 35.
- There were no groundwater samples collected.
- There were no fish samples collected despite the presence of two floating docks and evidence of fishing in nearby Muckinipattis and Darby Creeks.
- There were no air samples taken.

## **2. Contaminants of concern are present at concentrations exceeding EPA risk-based screening levels.**

- Soil samples collected immediately adjacent to the residential yards were elevated for many contaminants of concern, and exceed EPA's residential screening levels for PAHs, metals (arsenic, cobalt, copper, manganese, and vanadium), and PCBs (1 location). Some of the highest concentrations were closest to the residences (SS-05). The previous report conducted by USFWS showed elevated concentrations of pesticides in subsurface soil.
- Surface water samples exceeded EPA risk-based screening concentrations of aluminum, barium, and lead. The highest concentrations were found in sample SW-02 which is adjacent to the residences.
- Sediment samples exceeded EPA risk-based values for PAHs, pesticides, and several metals (arsenic, cobalt, chromium, copper, lead, manganese, mercury, nickel, and zinc).

## **3. Potential health effects of contaminants at the Site.**

- EPA has identified PAHs and PCBs as human carcinogens.
- Metals have numerous health effects including cancer (arsenic, chromium, mercury), neurological effects (lead). Zinc can cause immunological and hematological effects.

## **4. Additional sampling needed.**

- Surface soil, subsurface soil, and groundwater samples are needed in the residential yards to determine if these areas are contaminated.

Since this review was completed, EPA agreed to do more sampling and created a web page with information. DCVA hopes to provide more resources to help the community understand what is going on at the site - <https://www.epa.gov/norwood>.

## **Watershed Science Talks– It's Easy to Stay Informed!**

**By Derron LaBrake, David Bressler, Susan Miller, Lauren McGrath**

In late 2019 DCVA, along with Willistown Conservation Trust and Stroud Water Research Center, began planning a series of watershed science talks to inform and educate our watershed residents. In an effort to cope with the COVID-19 situation in early 2020 we transitioned this "Watershed 101" public education series to an online format. To date, we have conducted a number of online seminars for a number of participants from across the Darby Creek region. We have some amazing scientists in our region and DCVA has been able to tap into those resources to bring our membership and watershed residents a free informational and educational training series.

The live webinars normally run once day a week at noon, in hopes that people working would be able to join us. We have had an enthusiastic response from the community and hope to continue the series throughout the year. The webinars are recorded and can be found at [http:// www.dcv.org/Citizen-Science-Stream-Keeper/](http://www.dcv.org/Citizen-Science-Stream-Keeper/). You can also visit our event webpage to sign up for upcoming Watershed 101 lunch with series to learn more about the watershed. Webinars to date are:

**[Watershed 101- Darby Creek Watershed- Introduction](#)**  
**[Watershed 101- Model My Watershed App](#)**  
**[Watershed 101- Lunch with Bugs- Macroinvertebrates](#)**  
**[Watershed 101- Winter/Summer Salt Watch](#)**

## Music Dances Round

Words and music by Jan Haigis

**When all the world has laid you low  
And you are feeling sad and blue,  
There is a place that you can go.  
Let music take good care of you.**

**There's a place where you can go  
Where joy and hope abound,  
Where happiness is found,  
Where music dances round.  
It's a wondrous place  
Where smiles can light your face.  
You'll see the world through  
grace.  
Let music take you there.**

**When the world has burdened you  
with care  
And you don't know what to do,  
Let music whisper like a prayer.  
Let music take good care of you.**

**There's a place where you can go  
Where joy and hope abound,  
Where happiness is found,  
Where music dances round.  
It's a wondrous place  
Where joy can light your face.  
You'll see the world through  
grace.  
Let music take you there!**

Go to this link to hear Jan sing this song:

<https://www.youtube.com/watch?v=WgQBBaCEquU>



Bartram Park

Photo by John Haigis

### A Note from Jan about Music

Music has always been a joy to me. I love to sing, to dance, to listen and to dream to music. In hard times, it consoles; in good times, it adds even more delight to my joy. This song was written a few years ago when I broke a bone in my foot, had limited mobility, much frustration, and little patience with staying at home on my couch! I started singing old Broadway Show tunes to pass the time and, low and behold, it lifted my spirits and "Music Dances Round" was born!!

In these trying days of pandemic, fear, social distancing and sheltering in place, music has been a life-line for me to hope and solace, determination and comfort. I most often listen to classical music during these stay-at-home days, but switch to rock and roll to restore my upbeat (literally!!) nature and get chores done.

I wanted to share my poem and song with you all, in hopes that you will keep strong and positive in the midst of the very difficult situations we now must deal with. Music has been my way to do this and, perhaps, will help you, too. Along with laughter, prayer, natural beauty and kindness, music can bring us strength and togetherness even when we are apart. It can help us cope now and prepare us for whatever work is necessary when these current trials are done.

Wishing you good music, good health, good friends near or far, and much patience and resilience,

*Jan*

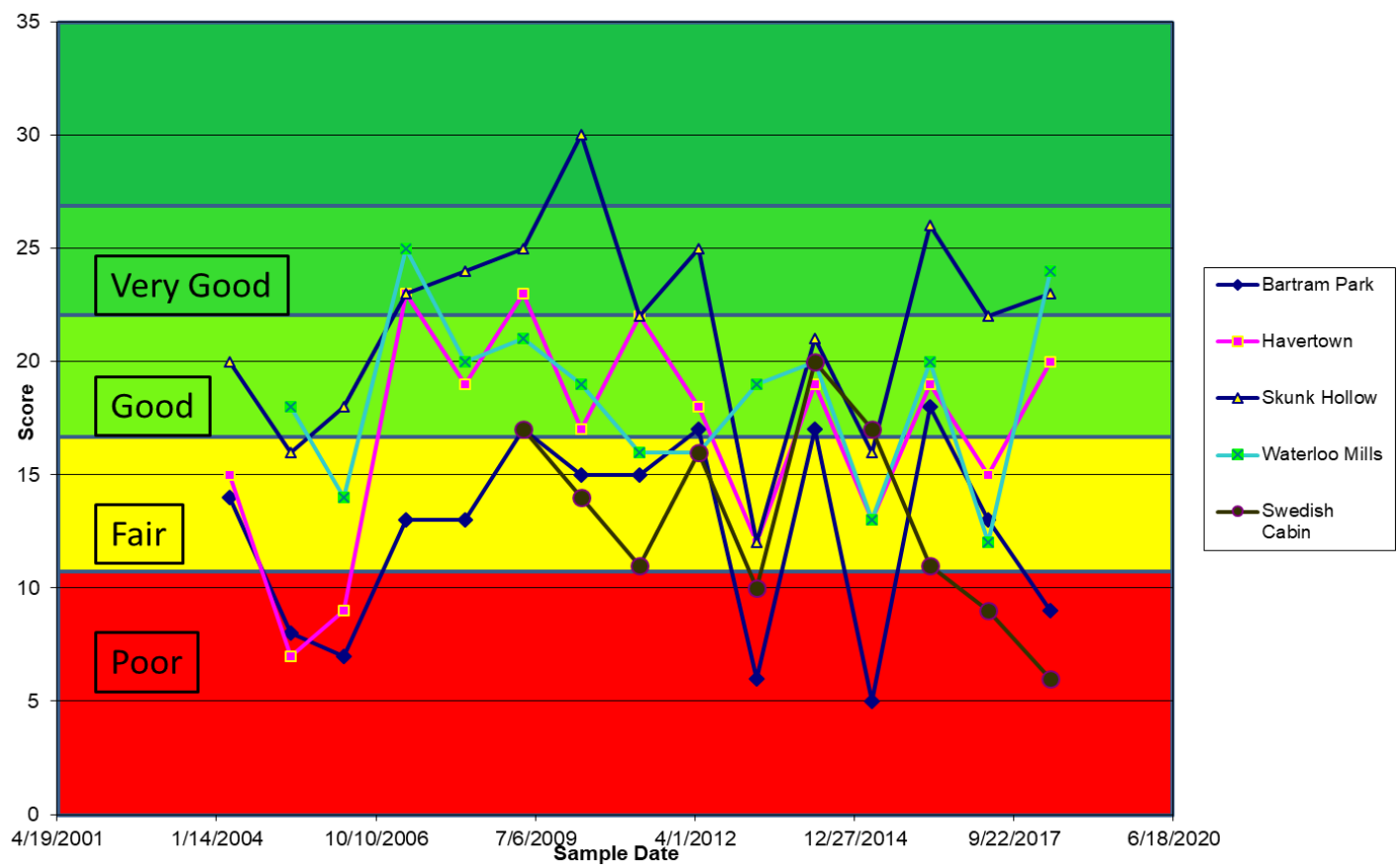
# Another Successful Insect identification Workshop! By Alan Samel

We had our annual Insect Identification Workshop January 25, 2020 at the Haverford Reserve. The environmental lab is a great place for us to set up and take a look at the samples we took from stream the past year on April 6, 2019. We also had lunch supplied by DCVA, too! Beautiful!! Many thanks to the folks who came out and made the Workshop a success. You broke the record for the number of participants: almost 30 people!

The annual Stream Watch was April 6. We took 12 samples, 2 from each site. Thanks to the small army of volunteers who helped make this a great day. It was a beautiful day to get wet! It was sunny and about 60°F. Samples were taken from six locations on Darby Creek: Bartram Park in Darby, Darby Creek Road in Havertown (downstream from the Haverford Reserve), Skunk Hollow in Radnor, the Brandywine Preserve at Waterloo Mills in Easttown, the Swedish Cabin in Upper Darby, and a new site we call the pumping Station site in Radnor. Expanding to a sixth site is a great tribute to the expanding interest in the stream watch program and recognition of its importance to monitor the health of Darby Creek.

The insects and bugs we collect provide a snapshot of the health of Darby Creek. We have been conducting these sample collections and identifications for almost 20 years. From this long-term sampling, a trend of the stream health at each site has been determined. Each year we compare our findings from the water quality determinations from the previous years. It's a way of getting the big picture from a lot of very small bugs! But getting into the stream and collecting the bugs is only part of the streamwatch program.

**Macroinvertebrate Analysis**





The next step was to identify the bugs pulled from the stream. We then identify the level of water quality for that section of the creek. The purpose of the workshop is to identify the aquatic organisms taken in samples during the Stream Watch. The results provide an assessment of the water quality of Darby Creek at each site during that period of time will be assessed based on the organisms present during sampling. The 2019 samples showed decreases in water quality at all locations. While one year does not point to a problem, we will monitor this closely. The next stream watch is scheduled for this coming April 15<sup>th</sup>.

This insect identification workshop is not anywhere near as hard as it sounds. Yes, we use microscopes. Yes, the bugs are small. And yes, there is mud and twigs and leaves. But NO, it is not difficult. Heck, this year we had kids process samples collected! So much energy; it was great. And they did a great job. This was about the 15<sup>th</sup> year for this workshop, so we have gotten pretty good at it.

This past year, the results were very variable. One year does not provide an unequivocal conclusion about the water quality at each of our sites. It takes years of data before we can get an idea of the overall water quality at any one site. With about 15 years data at some of the sites, we have a pretty good idea of what to expect, and what would surprise us. For example, the Havertown site just downstream from the Haverford Reserve trends over time to be in the fair-good range for water quality; this year is no different. At the other end, the Skunk Hollow water quality is almost always very good. This year that water quality metric went down to fair. Why? It was a warm winter, so that could be it. Or, was it something else?

We really won't know until we sample that site again to see if there is a continued trend down or if it was just a one year blip.

Unfortunately, we were not able to conduct our annual stream watch for 2020 due to the Covid 19 virus. The stream watch event is very time sensitive and must occur in the early spring before the aquatic insects emerge as adults. We need these insects because they tell us a lot about the water quality at that site at that time. If we collect mayflies, which are very sensitive to stress, then that is the indication of a stream location with high water quality. If we collect no mayflies at a location but expect them to be there, then that is an indication that this site might be stressed.

It is unfortunate to lose an entire year, but I know that I can depend on this army of volunteers to be ready to go in 2021. In the meantime, stay healthy, protect our waters and watershed!



Photo Above: Rich Horwitz (center ) and Tim Devaney (right) Photo Bottom Left : Matt Morse (left) and Trina Vanderwall (right)

*Photos by Alan Samel*



## Dumps and Water Quality

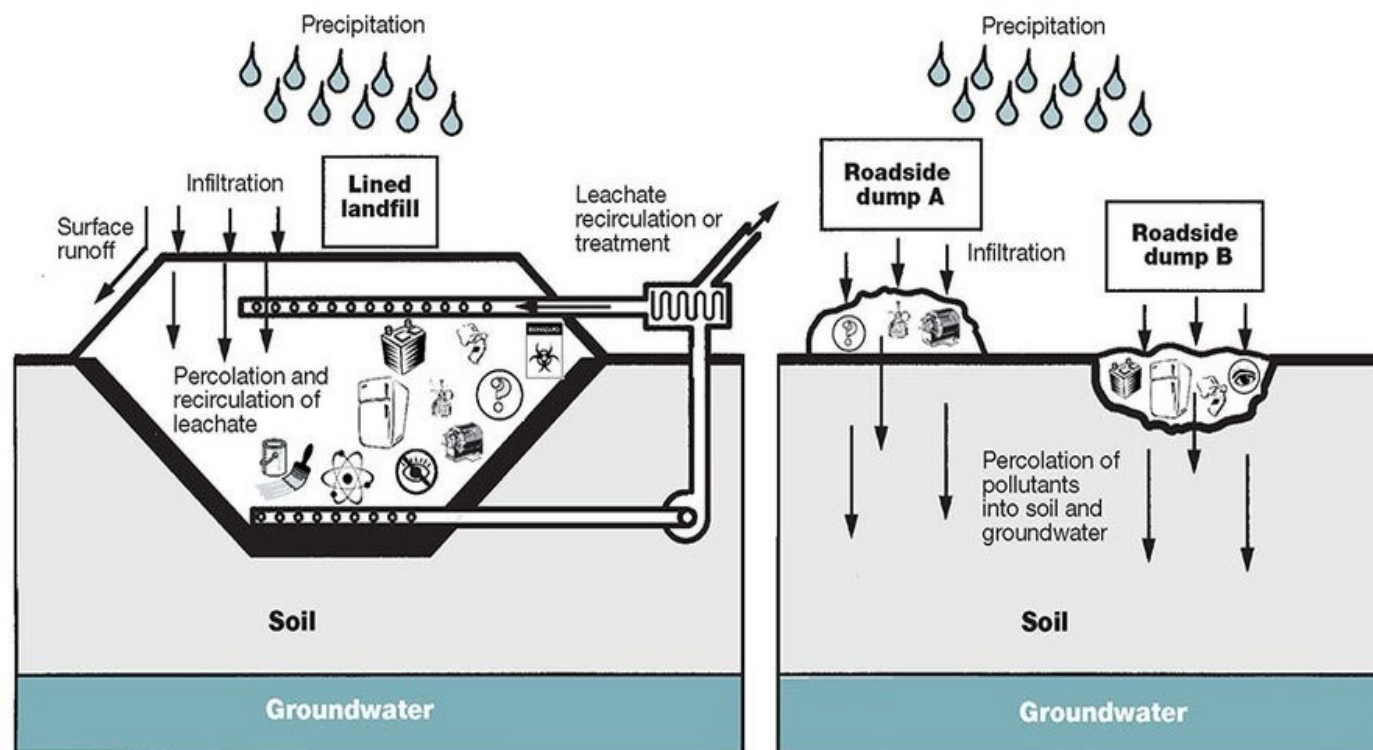
### Why are Dump Sites a Hazard to Water Quality?

*This excerpt from a Penn State Extension Roadside Dumps and Water Quality publication addresses the complex issue of water quality as it is affected by solid wastes that have been mismanaged, including roadside dumps. The full Penn State Extension Article can be found online at:*

<https://extension.psu.edu/roadside-dumps-and-water-quality>

When precipitation, surface runoff, or a high groundwater table infiltrates into a landfill or dump, leachate is created. Water percolating through the wastes causes chemical compounds to be dissolved or suspended in the leachate. As a result, leachate may contain high concentrations of various bacteria, viruses, metals, nutrients, and organic compounds. Bacteria may also alter the leachate composition over time.

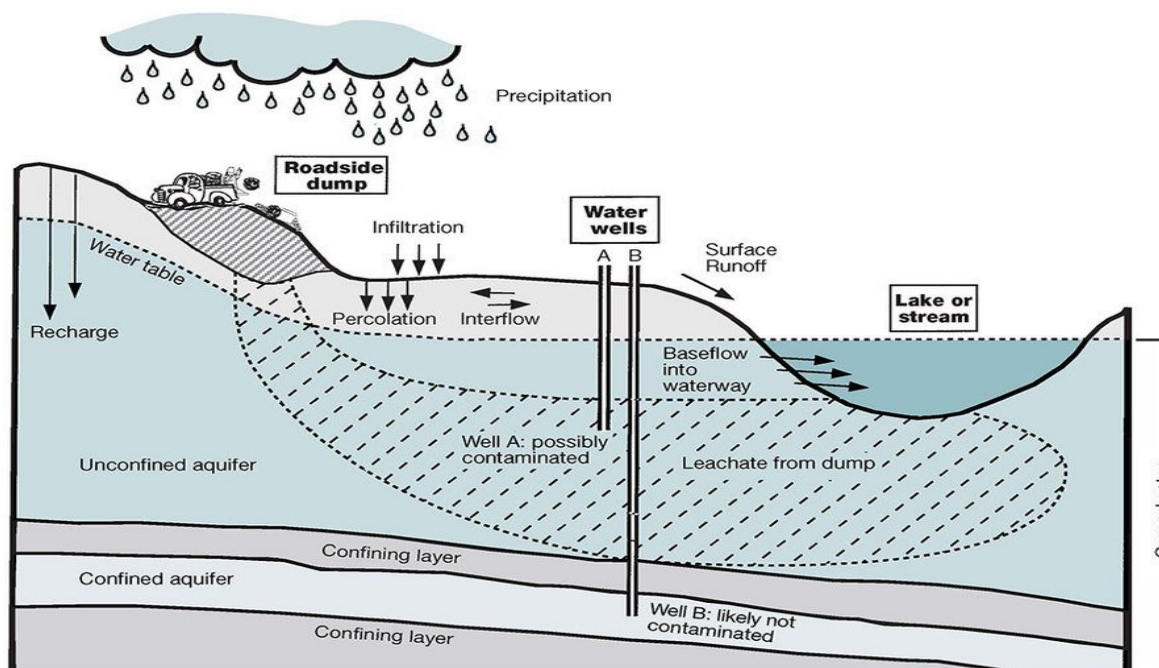
Understanding the elements of pollution formation and the effects pollutants have on our environment is helpful. Figures 1a and 1b show how leachate may form in a municipal landfill and two open dumps. Note that the materials in the dump determine what pollutants will move, or leach, as well as the extent of contamination of groundwater. The age of the dump along with physical, chemical, and biological conditions inside determine the extent and rate of degradation of materials and the release of pollutants. Important factors include temperature, the presence of oxygen, pH, the presence of bacteria, precipitation, mobility, and leachability of contaminants. The impact a dump has on water quality depends on more than just the material that has been dumped. The opportunity for leachate to migrate to groundwater or surface water depends on the topography, soils, bedrock type and layout, and local and regional water flow patterns. The figure below shows how an open roadside dump can contaminate groundwater and surface water. The influence of leachate on nearby wells and surface



streams will depend on proximity and the type of underground flow patterns. Note that groundwater generally flows in the same direction as surface water (downhill). As a result, wells (such as Well A) or streams that are downhill from dumps are more likely to be contaminated by the leachate coming from these dumps. In some cases, a layer of watertight rock (called a confining layer) might prevent the leachate from moving deeper into the ground and contaminating other deeper underground water storage reservoirs, called aquifers. Wells drilled into these deeper aquifers may not intercept contaminated water, which is not the case in the overlying unconfined aquifer. Pumping may cause contaminated groundwater to move through the confining layer(s).

The impact a dump has on water quality depends on more than just the material that has been dumped. The opportunity for leachate to migrate to groundwater or surface water depends on the topography, soils, bedrock type and layout, and local and regional water flow patterns. Figure 2 shows how an open roadside dump can contaminate groundwater and surface water. The influence of leachate on nearby wells and surface streams will depend on proximity and the type of underground flow patterns. Note that groundwater generally flows in the same direction as surface water (downhill). As a result, wells (such as Well A) or streams that are downhill from dumps are more likely to be contaminated by the leachate coming from these dumps. In some cases, a layer of watertight rock (called a confining layer) might prevent the leachate from moving deeper into the ground and contaminating other deeper underground water storage reservoirs, called aquifers. Wells drilled into these deeper aquifers may not intercept contaminated water, which is not the case in the overlying unconfined aquifer. Pumping may cause contaminated groundwater to move through the confining layer(s).

Precipitation eventually ends up in the water well in a variety of ways. Note that arrows indicating water flow have been isolated to simplify the illustration; however, in actuality, these flows occur in all locations depicted. Water can weave its way past confining layer(s) that resist water flow, or it can percolate deep into aquifers. Some of the water remains in aquifers, while portions of the flow exit at lakes, streams, springs, or pumping wells. Notice in the figure below how some water is recharged into the unconfined aquifer, and when this water percolates through a roadside dump, the resulting leachate (pollutants) may contaminate down-gradient drinking water supplies.





# Missouri Gravel Beds- Make Your Bed and Plant in It

By John Haigis

Trees are essential for life, giving us oxygen, shade and beauty and even though, as the poet Joyce Kilmer wrote, "Only God can make a tree," humans are helpful to plant the trees, and then to tend the trees once they are planted. Trees for planting are often B&B (balled and burlap) where the tree is dug from the ground and the root ball is wrapped in burlap and planted in a hole of sufficient size to accommodate the root ball. This method often requires equipment for moving the heavy root ball and digging the hole. Another method becoming increasingly popular is bare root planting where trees with no soil around the roots are planted in the late fall or early spring when the tree is dormant. Bare root trees are lighter, easier to handle, and less expensive to purchase and transport. In addition bare root trees grow quicker and adapt better to their new conditions than potted trees, but they are often small and have a narrow window in which they can be planted.

A Missouri gravel bed (MGB) is a way to increase the fibrous root system, recover poor root systems, grow the tree, and prepare for planting at a later date. A gravel bed is a low-tech hydroponic system that allows bare root trees and shrubs to be planted any time of the year with outstanding survival. Gravel beds can be a community project, taking small trees, letting them grow, and at the appropriate time, selling or planting them when they are ready. This can transform vacant lots and communities and serve as a focus of civic pride.

The Missouri Gravel Bed was developed at the University of Missouri Horticulture Research Center about 1985 when bare root Washington Hawthorn trees were grown in aerated water and after 8 weeks survived planting in midsummer. While aerated water grows good roots, it does not provide any support, creating problems in plant handling. The studies since 1986 have used creek gravel as the support and root growth medium.

There is nothing high tech about MGB. All that is required is a layer of gravel and a time clock controlled irrigation system. Plants are simply placed with their roots in the gravel, and allowed to grow until time to plant. A surface application of slow release fertilizer has proven effective in keeping the plants green. (1)

University of Missouri Professor Chris Starbuck writes:

**Layout:** The beds can be constructed in 4' x 25' modules using 1/2" gravel with about 10% sand (passing a #10 screen), 14" to 18" deep. Railroad ties or dimension lumber can be used to make the bed look tidy. The drip irrigation lines should be spaced 1 foot apart and running the length of the bed from a header across the 4' width. Emitters (0.5 gph) are spaced every 6" in the line.

**Bed Management:** Plants are placed in the bed by digging a trench in the gravel and then shoveling gravel back over the roots. It is helpful to wet the gravel before making the trench. Spacing of plants in the bed will depend on the plant size. Staggered rows work well for trees with 6'- 8' trees as close as 16" in the row. Up to 100 trees and shrubs can be placed in a



Bed.

It is best to get the bed set up by mid-April to allow for good root development before the onset of hot temperatures. Until plants leaf out, watering is not critical. Set the time clock to water two or three times a day for about 5 minutes. When the plants have begun to flush, set the time clock to irrigate about 3 or 4 minutes every hour during the daylight hours. Later, when the growth has slowed, the irrigation frequency can be reduced to once or twice per day. Let the plants be your guide. Slow release fertilizer granules should be applied to the surface of the gravel. Use a rate similar to that for topdressing container stock but apply at monthly intervals.

**Planting:** When removing plants from the gravel, lay the plants on a piece of plastic and spray them with water. A bundle of five or ten plants can be wrapped up and tied with twine. If the bundle is not opened and kept in a cool place, the plants can be kept for several days before planting. Dipping the roots in TerraSorb gel does not seem to provide any real benefit and may actually interfere with root growth in some cases. It is best to check occasionally and spray the roots with water. Later in the season, after the top growth has hardened, the roots can be placed in a bag and the tops left exposed. Water added to the planting hole is often the only care required as the roots begin taking up water from the backfill soil immediately. (1)

In the King James version of the Bible, Genesis 1:28 says "Be fruitful and multiply and replenish the earth and subdue it:" Although the word "replenish" is missing from modern translations, gravel beds, and planting and tending more trees, may be a way to do that.

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**Material for this article primarily from these two sources:**

(1) Growing Bare Root Trees- Howard Garrett, The Dirt Doctor

[https://www.dirtdoctor.com/garden/Bare-Root-Trees-The-Missouri-Gravel-Beds\\_vq3232.htm](https://www.dirtdoctor.com/garden/Bare-Root-Trees-The-Missouri-Gravel-Beds_vq3232.htm)

(2) ALL YOU NEED TO KNOW ABOUT COMMUNITY GRAVEL BEDS

[http://www.mntreesource.com/uploads/2/0/7/0/20706756/all\\_you\\_need\\_to\\_know\\_about\\_community\\_gravel\\_beds\\_2013\\_edition.pdf](http://www.mntreesource.com/uploads/2/0/7/0/20706756/all_you_need_to_know_about_community_gravel_beds_2013_edition.pdf)

Photo from <http://www.rneighbors.org/missouri-gravel-bed-project/>



# Cricker's Corner

By Tom Roy Smith

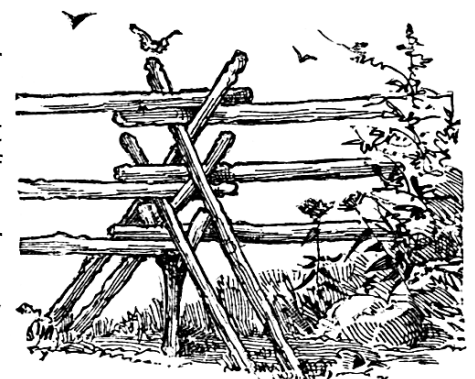
In 1971 I began interviewing older Upper Darby residents about their memories of silent film maker Sigmund Lubin. The stories related to me were over 70 years old at the time, and 120 years old today. I begin with Ellwood Story, born 1884 in central Upper Darby. At that time the township had many dairy farms, and Elwood was a farm boy. He remembered an incident that intrigued the whole neighborhood. In 1898 Sigmund Lubin and his crew shot a photoplay at McGrath's farm near Naylor's Run, entitled "Passion Play" which depicted the crucifixion of Jesus. According to Lubin scholar Joseph Eckart this production was filmed both along the Schuylkill River in Fairmount Park and in Upper Darby.

Advertisements made the point that this film was "a mile long." Elwood Story recalled that one Lubin work was shot in a farmyard. The cameraman was braced by post and rail fences to the left and right. Story and his friends sat on the top rail of a fence, just out of sight. A farmer was supposed to bring his cows into the pen. When the farmer was leading the cows, one of Elwood's friends fell off the fence and rolled into the frame of the camera. Mr. Story said that he and his friends later went into Philadelphia and actually saw that scene in the film.

I learned something relative to this. I wrongly thought that scene was part of something larger. From the Smithsonian I found many early moviemakers shot short films of ordinary activities, known as "actuals", because people were so fascinated by the miracle of filmmaking in those days.

From talking to informants, I discovered many places where Lubin filmed, such as Drexel Hill, along Darby Creek, Cardington, (Upper Darby,) along Cobbs Creek, in the middle of Upper Darby, near Naylor's Run, Lansdowne, Yeadon, Clifton Heights, and Springfield. He often used the dirt road leading up to the middle-1600 Swedish Log Cabin on Darby Creek. In Wild West robbery scenes he often used a stagecoach with a team of horses dashing toward the cabin. Locals were sometimes hired as extras. This cricker actually interviewed one male and one female who had acted for Lubin. The woman was an ordinary citizen. The young man, David Wolfendon, was the son of a local textile mill owner. Lubin was always careful to ingratiate himself with the local powers that be. In one film David rode a horse and dressed as both a cowboy and a Native American at different times. David's dog "Choo-Choo" also appeared in the film, and might be considered a forerunner to such later canine stars as Rin Tin and Lassie.

A bit more about filming at the old Swedish cabin which is now a national historic site. The cabin stood directly across from an old textile mill. In the era before air conditioning buildings had large windows. This cricker spoke to mill workers who were told that they needed to pay attention to their machinery and work. However, they could not resist watching Lubin shooting movie scenes on the other side of Darby Creek. At noon the mill's lunch whistle would blow. Workers then crossed a small bridge to the cabin to get a closer look at the movie shoot. When the whistle again blew, signaling workers to return to their work stations, a number would stay behind, preferring to see Lubin's crew in action.



I conversed with several workers at the mill who sheepishly told me that there were many ways to re-enter the mill. Mill owner Nelson Kershaw and his sons tried to catch stragglers coming back to work late. My informants told me that they always managed to avoid the Kershaws. A battle was averted between the Lubin film crew and the Kershaws. Mr. Kershaw demanded that Lubin stop filming before the noon whistle blew and not start up again until the employees had finished lunch and returned to work.

Lubin sometimes did comedy shorts. One person told me that a clown-like figure with a fishing rod performed one scenario. He cast his bait. Then there was a jerk on the line. For several minutes, with acrobatics, he went forward and backward, holding onto the rod. The film concluded with him falling backwards and rolling on the ground with a gigantic fish on the hook.

Most of Sigmund Lubin's films had a cowboy-western theme. As indicated, the Swedish Cabin made a great backdrop. Frequently, there were fight scenes near the creek bank. Many, such as the one between a gold prospector and cowboy, ended up with the combatants splashing into the creek and slugging it out, getting totally soaked in the process. The history of our watershed is quite interesting, and it is a joy to relate it to you.

## Reusing old buildings as a way to emerge from the age of Covid-19

by John Haigis, Academy of Building Conservation

Change is the only constant, and it is likely we will emerge from this pandemic different than we were when it started. Nature has had a chance to regenerate, social distancing has changed our patterns of interaction, and we have all had a chance to reflect on what is important in life with a new appreciation for doctors, nurses, first responders and "essential" workers who risk their lives daily to keep us safe. People are finding creative ways to cope with hardship and our actions may and will have an impact upon the post-pandemic world. Disasters bring out the best, and worst in us all. For example, the storms which ravaged South Carolina gave impetus to the American College of the Building Arts which systematically began to restore the old houses in Charleston and is now the M.I.T. of the restoration trades. Creation of such a school in our area could build upon assets that we already have, provide training for people who have lost their jobs, and enhance quality of life by creating new life and opportunities for buildings, people, and communities.

Our area is blessed by a built environment reflecting our 300 years of history. From the 1650 Swedish Cabin in Darby Creek in Clifton Heights to the Victorian splendors of West Philadelphia, our older buildings inspire us, give us a sense of place, and make us feel better, but taking care of those buildings is a challenge. Our area is home to many educational institutions including Williamson College of the Trades, which is the Harvard of trade schools, but by the terms of Isaiah Williamson's will, does not admit women. We have an abundance of older, solid, but neglected buildings in need of care. Donovan Rykema and others point out that the most ecologically sustainable building is the one already built because of the embodied energy of materials and past investment. Older buildings utilize strong timber that is simply no longer available and many are still standing 50, 100, or 150 years after they were built. Can this be said of our "modern" buildings? Our frontier has turned inward and it may be time to take a new look at assets we already have and transform our first-ring suburbs into desirable places to live. There's an old joke that asks, what is the difference between a row house and a townhouse? The answer is "about three zeros."

Working on older buildings requires a different skill set and a fuller understanding of older methods such as flat plaster which is considered a "dead" art but which is in virtually every building built before 1939. Plaster is a skill that takes about four hours to learn but is it taught in any of our schools? Passiv House is a concept that started in Germany where the building creates more energy than it uses. There are new techniques and technologies like heat recovery ventilation, insulating plaster and green roofs that can be integrated into an older home, and ways to retrofit older buildings with modern requirements. Where are the schools to teach these skills of building conservation? Where are the schools to educate women in the building trades? Where are the schools to harmonize old and new, and teach the three pillars of architecture which are strength, utility, and delight.

The best way to learn is by hands on experience, and as we emerge from this pandemic, we have an opportunity to teach, learn, and transform the places we live. For more information, visit "Healing History" at <http://www.darbyhistory.com/ABC--plan.html>

## Illegal Dumping- You Can Report It

by Susan Miller

Many people do not realize that they should call 911 if they see someone carrying out illegal dumping. DCVA has heard from many citizens over the years that they do not know to which government agency to report illegal dumping. Out of this need, DCVA has started an Environmental Watch Dog Program, to help educate people on the potential environmental hazards of illegal dumping and how to report it.



Illegal dumping is a serious concern for the Darby Creek Watershed. Illegal dumpsites can be found in every county within Darby Creek watershed. In addition to contaminating our soil, surface and groundwater supplies, illegal dumps are unsightly and negatively impact property values. They are a public health hazard as they attract disease-spreading rodents and mosquitoes by giving them a place to live and breed. Socially, they send a message that no one cares about the community or property. The quality of life can be negatively impacted as well as economic development.

According to Keep PA Beautiful, cleanups conducted by local municipalities are costly, averaging about \$600 per ton, or roughly \$3,000 per site, and divert tax dollars and staff resources that could be better spent on community infrastructure, parks, or social programs. DCVA has been doing costly clean ups since 1984 and has removed thousands of pounds of debris over the years. While some areas have improved, there is still illegal dumping.

A list of organizations and agencies can be found at on our website that can help guide you to the appropriate agency to report illegal dumping or other issues. There is also a link to Keep PA Beautiful's Illegal Dump Free Pa Program site to which individuals can report illegal dumping or dump sites. Keep PA Beautiful will in turn report it to the appropriate authorities: <https://illegaldumpfreepa.org/report-it/>.



# A Sign of the Times: Introducing the Delaware County District Attorney's Environmental Crimes Unit

by Melissa Muroff, Assistant District Attorney, Chief of Delaware County Environmental Crimes Unit

The Office of the Delaware County District Attorney, led by DA Jack Stollsteimer, is not "business as usual." His election last fall signaled Delaware County voters' support for his "Smart on Crime" platform, emphasizing government ethics, gun violence reduction, criminal justice reform, workers' rights, and environmental protection. To that end, DA Stollsteimer unveiled his Office's Environmental Crimes Unit in January of this year.

County-level Environmental Crimes Units are unusual; in fact, no other Pennsylvania District Attorney's Office includes a Unit dedicated to environmental law. We're hoping that changes. The time for a proactive, County-level defense of our Commonwealth's environmental laws - and our Constitutional environmental rights amendment - is long overdue.

Understanding how the government initiates an environmental lawsuit helps to illustrate why an Environmental Crimes Unit in the District Attorney's Office is so important:

Violations of Pennsylvania's environmental laws can be addressed by different state officials. In limited instances, certain state agencies and commissions (e.g., Pennsylvania Department of Environmental Protection and the Pennsylvania Fish and Boat Commission) have authority to prosecute some - but not all - violations of the Commonwealth's environmental laws. For environmental cases, Pennsylvania's Attorney General, by law, must rely on referrals either from these state environmental agencies and commissions or from the district attorneys. The Attorney General does not have original jurisdiction over environmental law cases. Because most district attorneys' offices don't focus much on environmental crimes, if at all, the state agencies and commissions, in practice, tend to function as Pennsylvania's duly appointed environmental watchdogs. As a result, our courts are not seeing that many environmental cases.

DA Stollsteimer believes that local law enforcement - which includes the District Attorney's Office - can and should play a larger role in environmental protection and environmental justice. Because this DA's Office has original jurisdiction over environmental crimes that occur in Delaware County, it can collaborate with the state's environmental agencies and commissions and investigate and prosecute environmental crimes itself or refer them to the Attorney General's Office when the Commonwealth's considerable resources are required.

How prevalent are environmental crimes and violations in Delaware County? We are trying to answer this question as we refine the vision of the Unit. All the southeast Pennsylvania counties along the Delaware River face unique environmental challenges; Delaware County is no exception. Illegal dumping is a persistent and expensive challenge across most municipalities. Like much of the Commonwealth, Delaware County is trying to strike a balance between community health and safety and its role in Pennsylvania's oil and gas industry. The DA's Office also is focused on communities along the lower Delaware River that have hosted polluting industrial waste and chemical manufacturing facilities for generations. Pollution is an unfortunate byproduct of most industry and not always illegal, but illegal discharges and dumping must be redressed. These communities that have been fighting for environmental justice for decades deserve a willing partner in the DA's Office.

Assistant District Attorney Melissa Muroff

Chief of the Environmental Crimes Unit

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## New “Navigable Waters Protection Rule”

by Robin Mann

Just in time for Earth Day, the Trump administration issued the final rule redefining what waters are protected under the federal Clean Water Act. The new "Navigable Waters Protection Rule" was published in the Federal Register on April 21, 2020, finalizing the administration's efforts to replace the Obama administration's 2015 Clean Water Rule. In announcing the issuance, U.S. EPA Administrator Andrew Wheeler noted that his agency and the Army Corps of Engineers "are providing much needed regulatory certainty and predictability for American farmers, landowners and businesses to support the economy and accelerate critical infrastructure projects." Whether business and industry interests are in fact well-served by the new rule, it spells serious threats to the public interest in protecting water resources from pollution.

The Navigable Waters Protection Rule dramatically narrows the definition of "waters of the United States" that are covered under the Clean Water Act. Conversely, it opens up a vast proportion of the nation's surface waters to unbridled discharges of pollution. Ephemeral streams, i.e. streams that flow in response to precipitation, and many wetlands that are not immediately abutting or lack a surface connection to streams and other surface waters are stripped of protection. The EPA's own documents estimate that at least 18 percent of streams across the country and as much as 51 percent of wetlands lose protection under the new rule.

Already, multiple lawsuits have been filed against the rule, by a group of 17 states, and by two different groups of environmental organizations; a challenge has also been filed by a property rights organization claiming the rule is still too broad.

The group of 17 States<sup>1</sup> are challenging both the legal and the scientific validity of the rule. In particular, they argue that, to craft the rule, the Agencies are relying on the restricted definition of waters put forward by Justice Scalia in his opinion in the Supreme Court's 2006 *Rapanos* decision, an opinion that a majority of the justices failed to support. In legal cases brought since 2006, no federal appeals court has agreed with Scalia's definition. The States also argue the Agencies are jettisoning the scientific reasoning for the broad definition issued just 5 years ago; they note the Agencies "virtually ignore their prior findings and the comprehensive, peer-reviewed synthesis of current scientific understanding in the 2015 Connectivity Report," which studied the chemical, physical and biological connections between upstream and downstream waters. The States point to the EPA's Scientific Advisory Board's characterization of the rule, in its draft form, as departing from EPA recognized science " 'without a fully supportable scientific basis, while potentially introducing substantial new risks to human and environmental health.' " <sup>2</sup>

The Southern Environmental Law Center has filed suit against the rule in the U.S. District Court for South Carolina on behalf of over a dozen national and regional environmental groups. Announcing their suit, SELC's attorney Blan Holman noted: " 'This unlawful rule puts the water

<sup>1</sup>CA, NY, CT, IL, ME, MD, MI, NJ, NM, NC, OR, RI, VT, WA, WI, MA, VA, NC, DC and the City of New York

<sup>2</sup>U.S.D.C. for No. CA Complaint *Xavier Becerra, Atty. Gen. of Calif., et al. v. Andrew R. Wheeler, Administrator USEPA, et al.*

used by hundreds of millions of Americans for drinking, bathing, fishing, and business at risk as well as countless communities that deal with floods and hurricanes. ... You don't have to be a rocket scientist to know that pollution dumped upstream flows downstream, but the agencies shut their eyes to science and common sense.' "<sup>3</sup>

Another group of environmental plaintiffs filed suit in Massachusetts, making similar arguments and particularly underscoring that far from achieving the regulatory certainty the rule purportedly intends, it uses "ambiguous and undefined terms that will create confusion and make the Rule extremely difficult to implement." <sup>4</sup> For example, the basis for deciding if a stream is intermittent or ephemeral, hence whether it is protected or not, is on its flow in a "typical year;" the groups argue the Agencies' definition of "typical year" is unworkable and ignores changing climate patterns.

While Pennsylvania is not among those 17 states challenging the rule, it is to be expected that the divergence of the definitions of waters protected under the federal Clean Water Act and the Commonwealth's Clean Streams Law will hamstring PA DEP's ability to ensure protection of Pennsylvania's headwater streams and wetlands. To date, DEP has relied on the partnership with EPA and the Army Corps in permitting and enforcement programs, in implementing state protections. Now, with the greatly narrowed Clean Water Act protection, DEP will need to pick up a lot of slack in the midst of severe stress on state financial resources.

In the near term, citizen monitoring seems all the more important, keeping our eyes and ears out about proposed projects and enforcement issues. Longer term and hopefully, the new rule will fail in the courts, or be rescinded by another administration. Even better would be Congress passing legislation providing clarity, after decades of legal back and forth, that the Clean Water Act is intended to protect all the nation's waters. In the meantime, it's fair to say the Navigable Waters Protection Rule will have a hard time living up to its name.

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<sup>3</sup>Jeremy Jacobs, "Enviros sue to stop 'unreasonably narrow' Trump Wetland Rule, *E&E Greenwire*, April 29, 2020

<sup>4</sup>U.S.D.C. for MA Case No. 20-cv-10820 *Conservation Law Foundation et al. v. USEPA*

## Delaware County Conservation District Still Here to Help

By Karen Wilwol

In an effort to prevent the further spread of COVID-19, Delaware County Conservation District staff are working remotely and continuing to perform essential operations during the public health emergency. All staff are available via email and phone. The District's programs and operational activities are continuing remotely during this time, such as the Low Volume Road Program, DCCD's Mini-grant Program, TreeVitalize Watersheds Program, technical assistance, addressing complaints, reviewing NPDES permit applications, and conducting pre-construction meetings via teleconference.

Routine site inspections are currently being carried out upon request without the presence of the responsible party in order to comply with social distancing procedures during this time. Staff are responding to complaints and inspecting the site(s) in question on their own, especially if there is a pollution issue or the potential for pollution. Communication with the complainant is taking place remotely after the site visit.

The District depends upon the local community to refer sediment pollution violations to us, especially with the large number of active sites throughout County. If you witness best management controls that are not maintained, sediment pollution to a stream or wetland, or storm-water causing accelerated erosion, please feel free to give us a call at (610) 892-9484.

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***Friends of Heinz Refuge presents the....***

**VIRTUAL**




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**SATURDAY, JUNE 20TH**

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**How does it work?** Register for the event on our website or Facebook page. You will receive a Zoom link once you complete registration. Click the link to join the meeting at any time during the event. If you need assistance, email [info@fohrefuge.org](mailto:info@fohrefuge.org).

- **Registration begins JUNE 1ST!**
- First 50 registrants receive a Wawa gift card (event attendance required)
- Additional prizes will be raffled off to all registrants





Just a few of the special activities we have planned include a Sun Salutation yoga with Deanna Santiago, live sing-along music with Glen Waldek, bird identification, and a "How to make a s'mores indoors" demonstration!

*Festivities will begin in the late afternoon and conclude at sunset*

Upload your favorite sunset photo to Instagram using the hashtag **#FOHRsummersolstice** and we will feature it during the festival!

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**John Heinz National Wildlife Refuge at Tinicum**  
 8601 Lindbergh Blvd, Philadelphia, PA 19153  
 SEPTA routes 37, 108, & 115 stop at 84th and Lindbergh  
 Blvd. Eastwick Train Station is 0.5 miles away.

  @friendsofheinz  
 [www.fohrefuge.org](http://www.fohrefuge.org)  
 [info@fohrefuge.org](mailto:info@fohrefuge.org)



## Darby Creek Salt Levels Reach Toxic Levels

By Susan Miller

DCVA , along with our other Delaware River Watershed Initiative (DRWI) Up Stream Philadelphia Suburban Cluster partners participated in the Izaak Walton League ( IWL) National Salt Watch Program . Under the direction of Kevin Roth, Educational and Outreach Coordinator for Pennypack Ecological Trust, Citizen Scientist signed up , and received a free test kit from IWL and began sampling our local water ways for chloride level, an indicator of salt levels, content and uploaded their data to Water Reporter, a social media app for watershed organizations.

The Izaak Walton League released a press release of the findings and on May 28th the Philadelphia ran the article Road Salt Levels in some Philadelphia-area streams hit toxic levels. Fresh water streams should contain little to no salt , and levels over 230 ppm are toxic to aquatic life. The Philadelphia area levels ranged from 318 ppm – 800 ppm. The 2 highest levels were in the Darby Creek, Berwyn at 800 ppm and Drexel Hill 583 ppm. Increased salt levels in our streams corrode pipes, harm our pets, and reduce the amount of clean water available to fish and wild-life. Water treatment plants are not equipped to filter out excess salt, so that salt can end up in our tap water, which can cause health concerns for people with high blood pressure. Government officials and community members need to work together to limit salt use on roads and sidewalks, find alternatives to road salts, and stop the pollution of our nation’s streams and rivers. For more information about road salts or join the Winter Salt Watch program visit [iwla.org/saltwatch](http://iwla.org/saltwatch). To find out more about DCVA’s Citizen Science Program email [director@dcva.org](mailto:director@dcva.org). Full Philadelphia Inquire article can be found: <https://www.inquirer.com/news/delaware-river->

### JOIN THE DARBY CREEK VALLEY ASSOCIATION TODAY!

*The Darby Creek Valley Association (DCVA) is dedicated to the protection and enhancement of all of the watershed’s resources, including water, wildlife, historical sites, and the floodplains. The organizations immediate goals are to prevent all forms of pollution in the Darby Creek and its tributaries, to prohibit dumping and construction on the floodplain and to expand our educational programs for all residents within the watershed. It Also seeks to improve water quality and maintain a debris-free stream through clean-ups and public education. DCVA works to preserve historic properties, such as the Swedish Cabin and the Blue Bell Inn. The Association would like to set aside the more than 30 miles of valley for use as a greenway for all residents to enjoy. We need your support. Help us continue to protect the environment for ourselves and our children.*

**We invite you to fill in the form below, check member category, and mail form with your check to:**

**Darby Creek Valley Association, PO Box 732, Drexel Hill, PA 19026 or join at [www.dcva.org](http://www.dcva.org)**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Email Address: \_\_\_\_\_

**DCVA is a 501(c)(3) Non-Profit Organization– All Donations are tax deductible to the fullest extent of the law.**

\$15 Senior/Student Membership    \$25 Friend Membership    \$50 Supporter Membership    \$100 Patron Membership

\$250 Protector Membership                      \$500 Steward Membership                      \$1000 Guardian Sponsorship

\$2500 Conservationist Sponsorship                      \$5000 Preservationist Sponsorship                      \$10,000 Super Hero Sponsor

**The Valley is the quarterly publication of the Darby Creek Valley Association.**

**Send your articles to Kathryn Goddard Doms Editor [kgoddard@ursinus.edu](mailto:kgoddard@ursinus.edu)**

# CALENDAR

DCVA Board Meeting.....Third Saturday of each month

See [www.DCVA.org](http://www.DCVA.org) for upcoming webinars or recorded webinars on lots of informative topics!

Dear Members and Friends of DCVA:

PLEASE EMAIL Kathryn Goddard Doms at [kgoddard@ursinus.edu](mailto:kgoddard@ursinus.edu) or call me at 610-291-5800 if you would like to save paper and receive an email copy of *The Valley* only, and not a paper copy by US postage. We are updating our records.

Thank you!!

Kate Doms

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