



THE

Valley

Spring 2023

DARBY CREEK VALLEY ASSOCIATION



The President's Pen

By Jaclyn Rhoads



Board Members Rock!



It is often that the President's Pen is about issues, membership, fundraising, programs, and other interesting topics, but I don't believe I have ever really focused on our board members.

What a fantastic group of individuals from all walks of life on the DCVA board - scientists, professors, parents, non-profit leaders, and more. I have the pleasure of partnering with board members who have dedicated years of their time, if not more than a decade, to the Darby Creek watershed. I can't express my gratitude enough for the board members who recruited me, welcomed me, and brought me into the fold of such a wonderful organization. I have to say that the DCVA is so great due to the dedication and passion for the watershed shown by our members, particularly the board members.

Board members often participate in 4-6 programs per year besides attending monthly board meetings. This dedication amounts to at least 80 hours or more per year. Sacrificing their time and resources for the benefit of the watershed including the people and the wildlife, their dedication is beyond measure.

As some board members retire each year, DCVA welcomes new board members. In 2023, we are pleased to have Andrew Sharpe and Vanessa Bullock join the team. Andy lives in Glenolden, PA.

As a treasurer and leader on various transportation non-profit Boards of Directors, he cares about giving back to his community. He is a Social Media Specialist at Southeastern Pennsylvania Transportation Authority, responding to customer questions, complaints and commendations via Twitter, Facebook, and Instagram.

Vanessa has been a resident of Delco for over 30 years. She has been an active member/captain of Darby Creek cleanup sites for many years. She has served on the Pa Council of Mediators and the Threshold Organization of Delaware County (a better choices group for the incarcerated) and volunteers at the Community Mediation for the Center for Resolution in Media, Pa. Vanessa is an avid hiker and bicyclist. She has been employed as a Federal Mediator for over 25 years.

Thanks to both for volunteering to become DCVA board members and thank you to all our current board members for the work they do.



Seedling trees and shrubs from the Chesapeake Bay Foundation (CBF)

by Stephen Lockard,
DCVA Board Member

In the winter of 2021-22 Aurora Dizel, DCVA Operations and Administration Manager, alerted DCVA to an opportunity to obtain seedling trees and shrubs from The Chesapeake Bay Foundation (CBF). A group from Interfaith Power and Light (IPL) acted as a go-between to allow other watersheds to obtain trees from the CBF 10 Million Trees Give Away. The Darby Creek Watershed is in the Delaware River Watershed and outside of the Chesapeake, but it is certainly as stressed. The IPL program allowed groups in other watersheds to participate in stabilizing streambeds and mitigating stormwater throughout the region.



CBF tubes & stakes



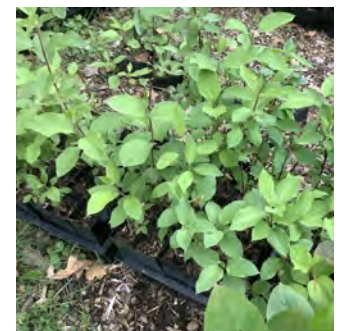
Under the IPL umbrella, members of the DCVA applied for seedlings during the winter/spring of 2022. Greg Williams from IPL helped us secure nearly 600 seedlings during that season, and we have already been successful in planting many of them in various locations in the watershed. Two locations were enhanced with seedling plantings: 1) in Willowstreams in Bryn Mawr, thanks to Phil Cooke, and 2) Gillespie Park in Clifton Heights, thanks to Upper Darby Tree Tenders and the Upper Darby Rain Gardens Program.



Flats of plants of various types, including juniper & spicebush



Last fall we secured 450 additional seedlings, then nearly 1,100 trees in the spring of 2023. With Peter Puglionese's help through their EAC, Haverford Township has already planted nearly 400 of the 1,100 trees. In addition, Upper Darby's Rain Garden Program, the Upper Darby EAC through Bonnie Hallam, and the Eastern Delaware County Stormwater Coalition with Jamie Anderson hope to follow that lead in the coming weeks.



More flats including dogwood & red twig maple



Plants from the UD nursery

The transfer of the seedlings from the CBF to the Delaware County's Conservation District at Rose Tree Park through Karen Wilwol is ensuring a smooth transition as a distribution site. With luck this partnership will enhance stormwater management throughout the Darby Creek Watershed.

Illicit Discharges a Danger to our Local Creeks

by Jamie Anderson,
DCVA Board Member

Storm drains lead directly to our local creeks and streams and are meant to have only stormwater enter them. Storm drains in the street do not carry water to a treatment plant as sewer pipes do; anything that is put down storm drains will end up directly in our local creeks and streams. Very often, people dump things into storm drains not knowing that they are connected directly to our waterways, or that the substances can harm our local creeks with nonpoint source pollution that can kill aquatic life and create unsafe conditions for recreation.

These pollution events are known as illicit discharges and common ones often include dumping of motor vehicle fluids, household hazardous waste, paint, grass clippings, leaf litter, treated drinking water, and animal waste. Just recently, an illicit discharge occurred to the Muckinipates Creek, where paint was washed into a storm drain causing a large portion of the creek to turn blue, harming aquatic life and creating concern for recreation.



It is important that only rainwater enters our storm drains to protect our local creeks from pollution. Illicit discharges can be obvious such as paint or something else colorful in a creek, or it may appear as film on the surface, a foul odor, or even dead fish floating in the water. If you see evidence of an illicit discharge, please call local emergency services or the DEP Spill Line at 1-800-541-2050.



A Pedestrian/Bicycle Bridge across the Darby Creek

by Stephen Lockard,
DCVA Board Member

The Darby Creek meanders through more than 3.5 miles of Upper Darby Township. At one point the stream separates Drexel Hill (DH) and Clifton Heights (CH), both in Upper Darby Township. The Darby Creek Trail jogs back and forth along the creek going south from Nickel Plate Road (a continuation of Bloomfield Avenue) in DH to Gillespie Park in CH, then back to DH along Creek Road.

Now, a long bridge spanning 150' will connect the trail's separated sides, linking The Old Swedish Cabin, the Sharon Hill trolley line (Route 102), a spectacular dam, and the Kent Dog Park to recreation in Gillespie Park. The riparian buffer in Gillespie Park itself has multiple upgrades; a diverse selection of 450 trees and 250 shrubs now dots the landscape. Plants were added to retention basins designed to collect stormwater from the neighborhood, and a Christmas tree revetment was added to deter streambank erosion.



Concrete abutment



Micro piles to anchor the concrete



Crane to hoist bridge into place



Rebar for abutment

A Pedestrian/Bicycle Bridge across the Darby Creek

The planning for the bridge over the creek has long been in the making, but funding issues, planning and design, and approval by the Army Corps of Engineers all took time. Increased costs limited the original plan for two bridges to the construction of a single bridge at this time. As the bridge dedication is planned in the near future, the bridge has been fixed in place, the decking concrete has been poured and the approach ramps are currently being graded and asphalted. This will be the first newly constructed pedestrian/bicycle bridge over the Darby Creek.

Springfield and Lansdowne will be two additional communities that have easier access to the trail, dog park, and other facilities. Hopefully, this is just the beginning of connectivity between multiple communities along Darby Creek.



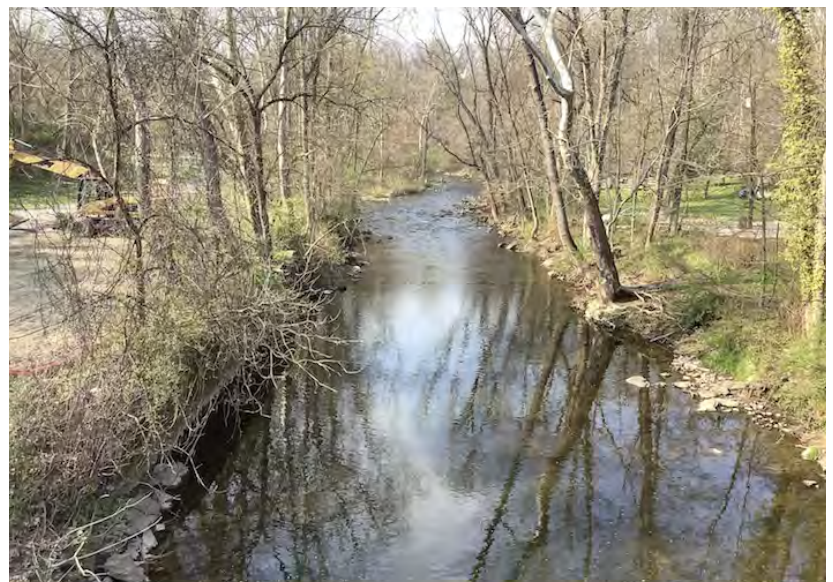
Empty footings



Bridge view from Swedish Cabin



Bridge in place



Northward view from bridge

39th Annual Watershed Wide Cleanup a Success

by Aurora Dizel,
DCVA Administrative and Operations Manager

This April the Darby Creek Valley Association community came out once again in full force to clean up our neighborhoods and waterways. Hundreds of volunteers, led by volunteer Site Captains, tackled over 30 clean-up sites throughout the watershed, picking up trash, tires, shopping carts and other debris. We are indebted to all the volunteers, sponsors, and municipalities that worked together to make this happen - thank you! Litter is a huge issue in urbanized areas such as



ours, with single use plastics making up a large portion of trash collected, but thanks to the dedication of so many volunteers our Darby Creek valley is cleaner than it was before. Seeing several municipalities taking action through single-use bag and straw bans gives us hope that our cleanups will someday become unnecessary. For now, we are incredibly grateful for the dedicated, thoughtful, caring members of the Darby Creek watershed community that do the work to beautify and protect our communities for people and wildlife.



Gillespie Park Cleanup



Sussex Woods Cleanup



Rolling Green Park Cleanup



Hoffman Park Cleanup

39th Annual Watershed Wide Cleanup a Success



Shorridge Park Cleanup



Springfield Swim Club Cleanup



Folcroft Property Aqua PA volunteers Cleanup

Want to get involved next year?

We are always looking for more volunteer site captains, volunteers, and tips on sites that need attention. Email inquiries to admin@dcva.org or subscribe to our monthly e-newsletter (on our website click on "Join Us" then "sign up for emails") and look out for calls for volunteers in early 2024.



Bloomfield & Rosemont Cleanup

DCVA and its Community Partners Help to Clean Radnor and Glenolden

by Andy Sharpe
DCVA Board Member

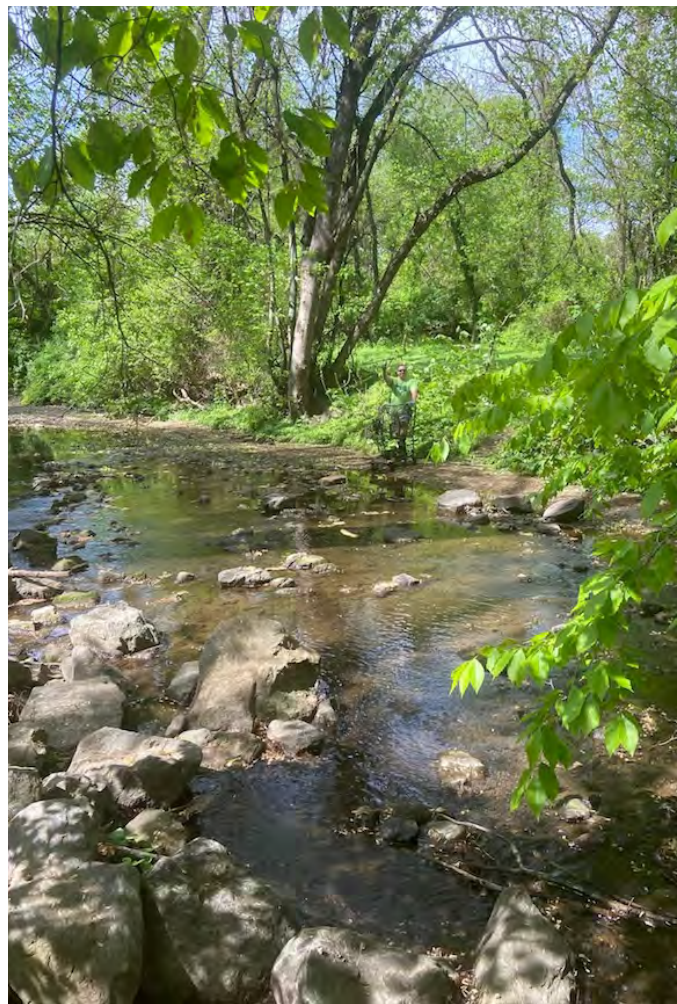
It was a busy couple of weekends for the Darby Creek Valley Association, its members, and its partners in the community in the spring of 2023. DCVA celebrated Earth Day and the weeks around it by organizing cleanups all throughout the Darby Creek watershed in Delaware County. This was the organization's 39th Annual Watershed Wide Cleanup. Despite the seemingly constant threat of rain on recent weekends, I was able to attend two of these cleanups, one in Radnor Township. and the other in Glenolden Borough.

It was a spirited group that volunteered for the DCVA cleanup co-organized by State Representative (and former DCVA Board member) Lisa Borowski and the Radnor Conservancy at Skunk Hollow Park in Radnor on April 15th. With the mild din of cows at a rare Delco farm sounding in the background, volunteers took to scouring Darby Creek and the paths around it looking for any sort of litter. Ultimately, 15 bags of trash were collected by some 18 volunteers, which included both adults and children. There was also a group of boy scouts engaged in a separate event, and they and their families took an interest in the DCVA cleanup.

In addition to humans, dogs were very appreciative of the efforts. Skunk Hollow is known for being a popular park for dog walkers, and they were out in force on Saturday. Many volunteers reported dogs would come up to them and bark their profound appreciation for the clean paths. Some of the humans walking the dogs also made sure to thank the volunteers and tell them how much they appreciated having a tidy park.

The most interesting item that was found was an enigma for volunteers. It was a metal object wedged deep in the ground that appeared to have been in the park for years. Some of the volunteers believed it was an old bear trap. Definitely an odd item to be found in a greater Philadelphia Park! Others thought the object may have been a small old bed frame. No matter what it was, thankfully, volunteers were able to safely remove and dispose of the item.

The next Saturday, on Earth Day itself, I was lucky to be able to help with a cleanup in Glenolden Park. Again, we were under the threat of rain, but luckily it held off until later in the day. DCVA volunteer James Labonski organized this cleanup along the banks of the mighty Muckinipattis Creek (a tributary of the lower Darby Creek) in the small Delco town. About a half-dozen volunteers, both adults and children, jumped in the creek and removed diverse types of trash, including a shopping cart. The popular gazebo in Glenolden Park served as the launching point for this, although volunteers wandered way down the creek.



Radnor Conservancy at Skunk Hollow Park in Radnor Cleanup

DCVA and its Community Partners Help to Clean Radnor and Glenolden

It was a busy day in Glenolden, as the Glenolden Borough Shade Tree Commission (which is not affiliated with DCVA) was also planting trees in the park. They ultimately planted six trees on Earth Day, four of which were in a part of the park dedicated to fallen soldiers and the other two of which were located along Glenolden's popular new walking trail. State Representative Dave Dellosa was on hand for the tree planting and planted one of the trees himself. Also, a number of Interboro High School students lent a hand, providing help while learning about conservation and community cleanliness at the same time.

In an encouraging sign, both the Radnor and Glenolden sites didn't yield as much trash as expected. It appears people are increasingly getting the message not to litter and are actually following that message. While 15 bags of trash in Radnor and a shopping cart in Glenolden might seem like a lot, both were actually less trash than in years past. It's also unclear how much of the trash was locally dumped, and how much of it came from upstream. While heavy items like a shopping cart were definitely dumped near where they were found, much smaller items could easily have drifted from another area with the creek's current.

It was also encouraging to see how many children helped at both sites. This included both teenagers and younger kids helping with their parents. Teens were given certificates confirming their community service hours at both sites. In Glenolden, teens played an important role, including a group of high schoolers from the Interboro football team, who are getting ready to graduate and go to college. With so much negativity in the news about teens, this certainly makes you feel much better about our next generation.

The weekends of April 15th and 22nd make it clear that, while there may be less trash in some areas, the desire to clean up



Glenolden Park Cleanup

local communities is as strong as ever. This year was the 39th annual cleanup, but it's clear there will be many, many more years in various sections of the Darby Creek watershed. In Radnor and Glenolden in particular, there is already talk of building on the work over Earth Day and organizing more independent cleanups in the summer. While these cleanups might not be official DCVA events, you can guarantee that DCVA members will be out in force. DCVA members in Glenolden, Radnor, and elsewhere are definitely dedicated to keeping their communities clean!

DCVA Participated in 3 Earth Day Events in 2023

by Aurora Dizel,
DCVA Administrative and Operations Manager



DCVA participated in 3 Earth Day events this year in Easttown, Haverford, and Upper Darby Townships. We made connections with local residents by providing literature and hands-on educational experiences about water quality including macroinvertebrate identification and demonstrations with the Enviroscape watershed model. Growing Greener Grant funding allowed DCVA to contribute 30 rain barrels for a residential giveaway at Haverford Earth Day.



Cut invasive vines – save a tree!

by Aurora Dizel,
DCVA Administrative and Operations Manager

English ivy is a familiar sight in gardens. It is often used as a ground cover, but it also climbs walls and, unfortunately, tree trunks. Native to Europe, it was brought here by colonial settlers and enjoyed by many as a low maintenance, evergreen groundcover. Unfortunately, we now understand that it is an invasive threat to the health of trees, and actually quite a lot of maintenance to control once it is established. You may be wondering; how does ivy threaten trees? When left to grow unchecked, invasive vines such as English ivy adds significant weight to trees and their branches which causes them to break, especially in storms and strong winds. Once ivy has spread into the treetops, it can also block necessary sunlight from leaves or needles, killing the branches and eventually the entire tree. English ivy is one of the most common invasive vines in residential and recreational areas in the Darby Creek watershed, yet other invasive vines such as wisteria, kudzu, and oriental bittersweet have the same ill effects on trees.

In a highly developed watershed like ours, every tree makes a big difference in protecting our water quality, providing critical wildlife habitat, and cooling our neighborhoods. It's critical that we pay attention to invasive vines and take action to lessen their impact on trees of all sizes.

In addition to spreading by creeping growth, harmful vines can also spread by seeds that are dispersed by birds when they eat the fruit. Cut vines can also create new roots. The best course of action is to remove the entire plant – roots and all. However, once a vine has begun to climb a tree it may not be feasible to completely remove the vine and pulling it off a tree could cause unnecessary damage to its bark and branches. In this case, the vine can be killed by cutting it once near ground level, and then again, a few inches above the first cut, removing the vine in between the two cuts and leaving a small window cleared around the entire tree trunk. The vine will then wither and die, eventually sloughing off the tree in time.

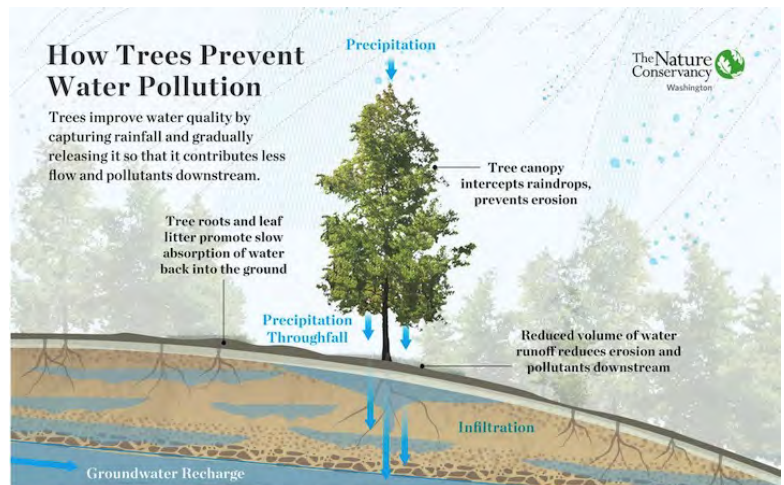


Image credit: [nature.org/en-us/about-us/where-we-work/united-states/washington/stories-in-washington/trees-prevent-stormwater-pollution/](https://www.nature.org/en-us/about-us/where-we-work/united-states/washington/stories-in-washington/trees-prevent-stormwater-pollution/)

On Sunday, April 16th a team of six volunteers enjoyed the fresh air and beauty of Darby Creek Valley Park in Havertown while working to remove invasive vines, protecting the many trees that make it such a wonderful place to hike alongside the creek. We were alerted to the significant amount of ivy growing along the trail by a concerned resident and were grateful to have willing volunteers to lend a hand saving dozens of mature trees.

Thanks to a \$500 grant from the Delaware County Conservation District, we will have more educational and volunteer opportunities around invasive vine removal in the months to come – check DCVA.org for an updated list of upcoming events.



Southbrook Stream Restoration at the Quadrangle Senior Living Community

by Terry Cooke
DCVA Board Member,
Quadrangle Board Member

Southbrook Stream is a small tributary to Darby Creek. It emerges on the property of The Quadrangle Senior Living Community, just to the southwest of Darby Road near the site of the former Frog Tavern. It flows southwest, running parallel to the Southbrook Trail as well as to Marple Road. It then passes through Haverford Township property before flowing into Darby Creek at the juncture of Marple Road and Route 476 (the Blue Route).

Historically, this small stream enlivened the grounds of the Allgates Estate belonging to the H. Gates Lloyd family. At that time, it fed both an enclosed bathing pool and an outdoor skating pond. However, the Lloyd property was sold in 1983 – initially to Berwind Realty Services and then to Marriott Corporation – at the urging of nine Haverford College professors who had a vision of the property being repurposed as a retirement home based on Quaker values. As the concept took shape in the form of the Quadrangle, efforts were focused on vastly expanding the infrastructure of buildings and facilities to support a sizeable senior community. The sixty-seven acres of woods, meadows and streams became an afterthought.

Fast forward to the summer of 2020. As the pandemic took hold and residents of Haverford Township and Delaware County saw the values of open spaces with new eyes, the Board of the Quadrangle undertook a project called TRAMP (Trails & Meadow Project) to revitalize this acreage of woods, meadows and streams on its property. This three-year effort is summarized on the facing page. Below is a Before and After photo showing results of the meadow reclamation effort as well as a schematic map showing the location of the meadow and Southbrook stream on the Quadrangle property. The trail network on the Quadrangle grounds can be found on Haverford Township trails map at <https://www.havtrail.com/reserve/>.

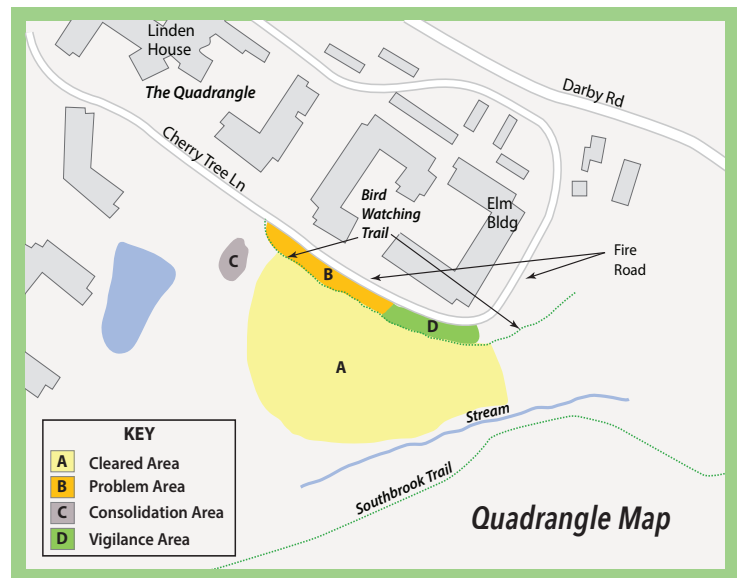
The TRAMP project makes a number of important contributions to the water quality and the ecological vitality of the Darby Creek watershed:

- Removing rusting farm equipment (plows, tractor bodies, batteries), other manufactured detritus and various pollutants from in and near the streambed.
- Restoring a greater proportion of native grasses to the meadow and removing numerous invasive plants to bring this small tributary watershed into better ecological balance.
- Mapping, and working to make more accessible, the network of trails which follow along and crisscross the stream bed so that the Southbrook Stream resource is better known and can be better safeguarded by birdwatchers and other local outdoor enthusiasts.



Southbrook Stream Restoration at the Quadrangle Senior Living Community

OVERVIEW OF TRAMP PROJECT In Year One, TRAMP's focus was on clearing and ecologically revitalizing the large meadow located to the southeast of the Fire Road immediately below the Bird Watching Trail. The Quadrangle Board undertook this work in close coordination with the Sunrise Management Team, the Landscape Committee, and the Environmental Action Group of the Quadrangle Residents' Association (QRA). It also involved the paid services of an environmental consultant (Will Ryan). Several landscaping contractors were hired to clear invasive plants, trees, and debris. We organized an information-sharing session by Zoom with all interested residents and made a presentation to the annual Trails Summit of Western Philadelphia, held annually in February at the nearby Haverford Community Recreation & Environmental Center (CREC).



In Year Two, we expanded our focus from the meadow itself to trails which interconnect the meadow to neighboring communities (such as Haverford Township, the Haverford Reserve, the township dog park, and the Bicycle Coalition). As for the meadow, our focal activities were (1) observing how the meadow was regenerating itself ecologically following the previous year's clearance of fallen trees and branches, invasive overgrowth, and abandoned machinery and other debris; and (2) working with Brent Beadle of the Quadrangle Maintenance Office to schedule regular mowing and occasional seeding to ensure that the meadow maintains a healthy equilibrium of mostly native grasses. For the trails connecting the Quadrangle to the wider community, we undertook several efforts: (1) we began work on developing a series of maps accurately pinpointing the existing (and poorly maintained) trails on the Quadrangle property, overlaying the trails with geological contouring and working with Haverford Township and Natural Lands to have the Quadrangle's property included in the township's authoritative mapping of local trails; and (2) we surveyed and performed application dry-runs for three different grant opportunities available to trails-related projects in Delaware County and state-wide (PECO Green Region, Delco Trails, DCNR Regional Trails) which we are pursuing in 2023. To support information sharing with the community, we conducted a survey, held an in-person presentation and Q&A session, and created a page on the Quadrangle Residents Association (QRA) website.

In Year Three, our first priority is to determine the initial set of working maps we will be using to underpin all other aspects of our current and future work. Secondly, we will begin to articulate a longer-term, integrated plan tying together key elements of our work to date – especially safe meadow access, resident community communications, trails revitalization, and partnership with surrounding recreational agencies and associations -- within a multi-year funding and grant application strategy. Securing initial grant funding to support this strategy will be a key benchmark of our success in Year Three. Other objectives include: (1) improving the appearance and safe physical access for an increased number of Quadrangle residents to the Bird Watching Trail; (2) encouraging more focused engagement by the Quadrangle community through more effective communications and/or event program; (3) improving the infrastructure of bridges and steps as well as the general "walkability" of trails for use by active Quadrangle residents and their family members and also members of our surrounding community; and (4) strengthening partnerships with various local groups – ranging from the Delco Planning Commission and Township Parks & Recreation Office to the local Boy Scouts troop, bird-watching groups, etc. By integrating these efforts in a multi-year development and funding plan, we can contribute to the sustainable development and maintenance of the Quadrangle's outdoor resource for all users; assist Sunrise management with attraction and retention of community members; and demonstrate to the Healthpeak owners that investment in these activities and resources increases the value of their holding.

Gray, Green, Blue and Blue-Green Infrastructure

by Carl DuPoldt
DCVA Board Member

Gray Infrastructure is designed to carry away stormwater from human communities. The term "gray" refers to the fact that such structures are often made of concrete. Gray infrastructure includes gutters, pipes, and tunnels designed to carry away stormwater to treatment facilities or directly to bodies of water. Wastewater or drinking water treatment plants can also be considered part of gray infrastructure. These systems, like other aspects of the nation's infrastructure, were built many years ago and are aging. Much of our gray stormwater infrastructure is failing. Green (land-based) and blue (water-based) stormwater infrastructure, and a combination of these two methods called Blue-Green infrastructure, may become more common across the country.

Green infrastructure makes use of plants, soils, or manufactured features to deal with stormwater where it falls. Examples of green infrastructure at the urban scale include rain gardens, planter boxes, bioswales, permeable pavement, green roofs, and street trees. In 2019 Congress enacted the "Water Infrastructure Improvement Act" which promotes green infrastructure as one way to reduce stormwater flows to sewer systems or surface waters (US EPA, 2023). On the neighborhood scale, green infrastructure could be a park. On the landscape scale, green infrastructure could be protection of a large open space. Green infrastructure helps to cool and beautify urban centers in addition to dealing with stormwater. An example of the use of green infrastructure is the Philadelphia "Green City, Clean Water" Program. This program was started in 2011 to deal with the aging gray infrastructure of Philadelphia, particularly the combined sewer systems which serve about 60% of the city.



Bioswale



Downspout Planter Box



Gray, Green, Blue and Blue-Green Infrastructure

by Carl DuPoldt
DCVA Board Member

Blue (water based) stormwater Infrastructure includes ponds, lakes, and streams, flood plains, and wetlands. While these are part of suburban and rural landscapes, many waterways in urban environments have been buried or confined to pipes or concrete channels. Blue infrastructure uses these features where they exist in urban environments or restores or creates them. Blue infrastructure provides shelter, nesting and nursery grounds for fish and wildlife and provides access to water-based recreation opportunities, along with dealing with stormwater. Blue infrastructure also contributes to the resilience of urban ecosystems, playing a key role in meeting sustainability goals.



Blue-Green Infrastructure (BGI) incorporates both blue infrastructure and green infrastructure. An example of BGI is using a wetland to filter stormwater that enters a waterway, all within an urban setting. The hydro-ecological functions of BGI are rainwater interception, evapotranspiration, infiltration, and absorption. The hydro-geologic ecosystem services are flood risk mitigation and water quality improvement. BGI seeks to recreate the natural water cycle in urban environments while also creating beautiful spaces for people to enjoy.



Upper Darby Rain Garden

Most of the knowledge on BGI is produced in the global North. Urban centers around the world could benefit from BGI as rapid urban growth, climate change, and high water-related risks are issues faced by many cities worldwide.

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Agroecology is the application of ecological principles in farming to create sustainable agriculture. Ecosystem diversity and regenerative farming practices are both important aspects of agroecology. The United Nations Environmental Programme points out that agroecology includes empowering farmers to be less dependent on external technology and less vulnerable to natural disasters while increasing their food security. An example of agroecology is purposefully grazing animals in a forested area where they are sheltered, have a diversity of food, and their manure enriches the soil. Other examples are integrated pest management and planting nitrogen fixing plants rather than using nitrogenous fertilizer. The application of agroecological principles can lead to agricultural practices that protect farms from climate shock and stressors, increase production and preserve the livelihoods of farmers and farm workers.

The ten elements of agroecology are:

- 1. Diversity:** Plant diversification is key to agroecological practices to ensure food security and nutrition while conserving, protecting, and enhancing natural resources.
- 2. Sharing Knowledge:** Agricultural innovations respond better to local challenges when local farmers help with the innovation process.
- 3. Synergies:** Agroecology includes combining annual and perennial crops, livestock and aquatic animals, trees, soils, water, and other components. These synergies are designed to increase resilience in the face of climate change.
- 4. Efficiency:** Agroecological practices are designed to produce more using fewer external resources.
- 5. Recycling:** Recycling as part of agroecology leads to lower ecological and environmental costs. Examples include fish farming in rice culture in which fish consume rice pests and fertilize the fields through their manure.
- 6. Resilience:** The application of agroecology, particularly ecosystem diversity, can lead to greater resilience of natural and human communities when natural disasters, climate change, or other stressors strike.
- 7. Human and social value:** Protecting and improving rural livelihoods, equity and social well-being is key to sustainable food and agricultural systems.
- 8. Culture and food traditions:** By supporting healthy, diversified and culturally appropriate diets, agroecology contributes to food security and nutrition while maintaining the health of ecosystems.

The 10 elements of agroecology

9. Land and natural resources governance: Sustainable food and agriculture requires effective legislation at the local, national, and even global levels.

10. Circular Economy: Effective agroecology requires maintaining connections between producers and consumers, encouragement of local traditional markets and local economic development that is sustainable. Fair prices for food, reduction of food waste, decrease in energy costs for food production and transportation by encouraging shorter food circuits and point of origin labeling are aspects of this element of agroecology.

Summary:

Agroecology seeks to reconnect producers and consumers through a circular and solidarity economy that prioritizes local markets and supports local economic development by creating virtuous cycles. Agroecological approaches promote fair solutions based on local needs, resources, and capacities, creating more equitable and sustainable markets. Agroecology is the application of ecological principles to agricultural practices, and it is being applied around the world.



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4. Principles of Agroecology - <https://www.agroecology-europe.org/our-approach/principles/>

Peter Puglionesi is the 2022 DCVA Ribbon of Green Award Winner

Peter Puglionesi, the 2nd Vice President of DCVA, is the 2022 recipient of the Bob Doherty Ribbon of Green Award. He has a B.E. from Cooper Union and an M.S. from Rensselaer Polytechnic Institute in Chemical Engineering and is a Professional Engineer and Board Certified Environmental Engineer.

Peter has served on the board of DCVA since 2013 and has been a leader in building a community of rain garden volunteers and stewards through founding the Hav-a-Rain Garden program. He has served as co-chair of the Haverford Environmental Advisory committee and facilitates collaboration among regional EAC members with the creation of the annual southeastern PA EAC Summit. He is also a leader in the local movement for residential solar through Solarize Delco. Peter is also a Haverford Township Civic Association Board Member, Co-Founder of Friends of Haverford Trails, and was on the Haverford Township Consulting Task Force for Haverford State Hospital which initiated the initial assessment of natural resources at the site which, after formal studies and planning facilitated by DCVA efforts, led to the preservation of over 120 acres of the 212 acre site for passive recreational use.

DCVA honored Peter with the Bob Doherty Ribbon of Green Award for 2022. Congratulations on this well deserved recognition Peter!





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

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

The Valley is the quarterly publication of the Darby Creek Valley Association. Send your articles to Kathryn Goddard Doms Editor kgoddard@ursinus.edu

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CALENDAR

DCVA Board meetings:

Dates for board meeting will be posted on our website.

Be a Friend to Bats. Saturday, October 14, 2023 10:00-11:00 AM

• Meet @ Haverford CREC, 9000 Parkview Dr. Haverford, PA Register at DCVA.org



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