



**February 2019**

## *Presidents Pen*

### **Celebrating our 35<sup>th</sup> Year**

#### **By DCVA President Jaclyn Rhoads**

**Annual Meeting March 2, 2019 8:30 AM**

**Haverford Township Community Recreation and  
Environmental Center**

Darby Creek Valley Association is celebrating an important birthday this year – our 35<sup>th</sup>! This year, we plan to offer many events, programs, and opportunities for our volunteers and members to engage. One event that I want to highlight first is a 35<sup>th</sup> anniversary celebration this spring (details to be announced) to help the fight to protect the waterways of Whetstone Run from excess development. DCVA joined the Whetstone Run Coalition to help fund review of Carlino’s development plans for the Don Guanella site in Marple Township. Carlino cancelled two public meetings that were scheduled for January 2019. It is more important now for residents of Delaware County to let the Delaware County Council know that you want to see one of the last remaining open spaces in the Darby Creek Watershed protected. Participating in our 35<sup>th</sup> anniversary celebration is another way that you can help in the effort.

In addition to our celebration, we will have an event each month. Here’s a sampling for the next 6 months:

- February – Wild Neighbors Program
- March – Annual Meeting
- April – Darby Creek Annual Cleanup and Stream Watch
- May – 35<sup>th</sup> Anniversary Celebration
- June – Canoe Race

You can find details for these events and more planned throughout the year on our website.



***Thanks to all of our partners in helping us to celebrate this year.***

***DCVA would not exist if it wasn't for our members, volunteers, and advocates. Here's to 2019!***

# NOMINATIONS COMMITTEE REPORT

## By Jaclyn Rhoads, DCVA President

The vote for DCVA board members will take place at the annual meeting. The DCVA nominating committee discussed potential additions and reviewed the renewing slate of members. We are pleased to nominate Marissa Pappas Barletta as a potential new board member. Ms. Barletta graduated from Ursinus College with a B.A in Political Science and Internatioanl Relations, and an M.S. in Community and Regional Planning from Temple University. She works for CDM Smith for whom she is a Senior Water Resources Planner and Assistant Project Manager acting as a full-time on-site consultant to Philadelphia Water Department.

The current board members whose terms are up and wish to run for another three year term are:

Jaclyn Rhoads	Tim Denny	Marty Mulligan	Peter Puglionesi
Derron LaBrake	Gerry Krieg	Toni McIntosh	

The following board members are not seeking reelection at this time. Their hard work on behalf of the Darby Creek Valley Association, the Darby Creek watershed, and the environment in general is gratefully acknowledged:

Donna Adams  
Ann Jackson  
TomRoy Smith



**LEARN HOW YOU CAN CONTROL THE STORM WATER RUN OFF ON YOUR PROPERTY.**

**Sign up for your free audit/ assessment**

**<http://streamsmarthousecalls.org/about/>**

DCVA along with PEC, EDCSC and PRC, LMC and DRWI upstream partners received a National Fish and Wildlife Grant to continue the Stream Smart Stormwater House Call program. The Stream Smart Program creates avenues for improved stormwater management on private property in this densely urbanized watershed where large restoration projects are limited. Our program will help educate you on stormwater pollution and provide an opportunity to have a stormwater audit of your property.

Sign up today for your free Stream Smart Audit/Assessment of your property. The audit/assessment will identify changes you can take to reduce storm- water runoff leaving your property. Each assessment will provide owners with a detailed report regarding the current stormwater situation on the property, and the various best management practices you can take to reduce this impact.



# DCVA 35<sup>th</sup> Annual Clean Up Anniversary

## April 13<sup>th</sup>, 2019

Each Spring since 1984 the Darby Creek Valley Association hosts a watershed-wide clean up event focusing on removing trash, tires, and other debris from regional waterways. During this event, volunteers work together to clean up sites located throughout the watershed.

An incredible amount of trash makes its way into our local waterways each year. Last year DCVA had 392 volunteers and collected 5.79 tons of debris in our dumpsters and 6680 pounds in trash bags. Every year we try to expand our reach and add new sites. We are projected to have 38 sites within all the streams and tributaries of the Darby Creek/Cobbs Creek Watershed within Delaware County, Chester County, Philadelphia County and Montgomery County including approximately 126 linear miles of streams and 10 miles of roadsides.

Help us as we work to protect and preserve our local stream, creeks by sponsoring or donating to the 2019 Stream Clean-up.

<p><b>Corporate Volunteer Sponsor \$300</b></p>	<p><b>Corporate T-Shirt Sponsor \$500</b></p>	<p><b>Corporate Clean-Up Site Sponsor \$1000</b></p>	<p><b>35<sup>th</sup> Anniversary Event Sponsor \$3,000</b></p>
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Your company logo will be placed on yards at cleanup sites.

Your corporate logo on event t-shirts and yard signs.

Your company logo in advert advertising, T-shirts and yard sign.

Your company logo in on web page for 1 full year as an event sponsor. advert advertising, T-shirts, yard signs.

Please send the following information to [director@dcva.org](mailto:director@dcva.org) by Feb 28<sup>th</sup> 2019

Name of Business \_\_\_\_\_.

**Send your logo**

Contact Name: \_\_\_\_\_ Email : \_\_\_\_\_.

**in jpg 3500 pixels.**

Pay Online at DCVA.ORG donations or mail check to: DCVA P.O. Box 732, Drexel Hill, PA 19026

If mailing check please send email and logo to [suedcva@gmail.com](mailto:suedcva@gmail.com).

*Help us make a difference and sponsor DCVA today.*

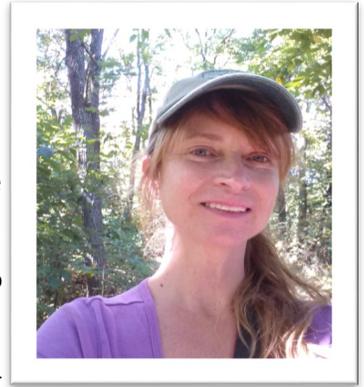
P.O.Box 732 Drexel Hill, PA 19026

Office: 484-222-2502 | DCVA.ORG

## Updates from DCVA Director Susan Miller

### DCVA is looking for New Board Members for the Future

Do you have a passion for the environment, education, and clean water. Would you like to give back by donating your talents and skills? Darby Creek Valley Association (DCVA) is in search of new board members. Darby Creek Valley Association is a local non-profit dedicated to the protection and enhancement of the watershed and its resources, including water, wildlife, historical sites, floodplains, wetlands, and riparian zones. Darby-Cobbs Creek Watershed encompasses 31 municipalities in Chester, Montgomery and Delaware Counties. DCVA is looking for enthusiastic individuals with a variety of backgrounds with a passion to give back and help the environment. The Board of Directors is responsible for the organization's financial well-being and accountability, ensuring that our activities are consistent with our mission, and the oversight.



As a board member, you are expected to promote the organization and help with fund-raising. The board meets once a month, normally the 3rd Saturday of the month. You will also be expected to: become a member of DCVA, participate in other activities such as fundraisers, board subcommittees, email discussions, and board retreats when they occur. Board members are strongly encouraged to make a three-year commitment, as this helps us ensure an experienced and capable board. If you would like more information about becoming a board member, please email [director@dcva.org](mailto:director@dcva.org).



### Charitable Legacy, RMD and QCD

Charitable gifts can provide a significant tax deduction and be a key part of your family legacy. When you put money into a pre-tax basis retirement plan account, you have not yet paid taxes on it. If you save in an IRA you also receive a tax deduction. The account grows and continues to grow tax-deferred. To ensure that taxes are eventually paid on the money, the IRS determined that distributions must begin, and taxes paid starting at age 70 ½ on a specific schedule. These annual distributions (withdrawals) from your retirement account are known as the required minimum distribution (RMD). If you are over 70 ½ years of age and do not take any distributions, or if the distributions are not large enough, you may have to pay a 50% excise tax on the required amount not distributed.

Did you know you could use your required minimum distribution (RMD) for charitable purposes? These distributions could be made tax-free if they are directed to a 501(c)(3) public organization. This is known as a qualified charitable distribution (QCD). Making a QCD can be a great strategy if you're charitably minded and don't need your full RMD. You can donate up to \$100,000 of your annual RMD from IRAs distributed directly to a 501(c)(3) public charity, enabling you to avoid paying income taxes on that amount. The QCD applies to traditional, rollover and Roth IRAs, SEP and Simple IRAs. You can also donate appreciated securities due to the double tax benefit of avoiding the tax on the capital gains and appreciation, in addition to receiving the charitable tax deduction. One additional point is that although many donors prefer to wait until the end of the year to gift, there are benefits to a year-round plan giving.

#### Resources for more information on RMDs and QCDs:

<https://www.irs.gov/retirement-plans/retirement-plans-faqs-regarding-required-minimum-distributions>  
<https://www.irs.gov/retirement-plans/retirement-plans-faqs-regarding-iras-distributions-withdrawals>



# Meadowbrook Run Wetland Rehabilitation at Sacred Heart Academy-Phase 2

by Ann Jackson

2018: Was the year of the great planting and planting and planting. Thank You Volunteers!

2019: March-remove vines, April-plant shrubs, and May—plant native flowers.

Sacred Heart Academy(SHA), Bryn Mawr called upon DCVA to help restore wetlands, riparian buffers, uplands and woodlands to help intercept rain water, stabilize banks, create habitat of native plants for pollinators, and create an outdoor environmental education area for students and the community. So forty volunteers from: SHA-(students, faculty, staff, parents); DCVA, Master Watershed Stewards; Radnor High School; and the community planted 46 trees, 79 shrubs,72 wetland grasses plants, 767 herbaceous flowers for pollinators; seeded the wetland and riparian areas with OBL native seed mix and seeded upland areas with Deer Resistant Meadow and Warm Season Grass mixes. All of this planting has transformed the invasive overrun wetland into a native habitat for pollinators and an educational opportunity. We all learned how to prepare slopes and wetlands for seeding (no till method); hand cast seed, plant container and bare-root trees and shrubs, and plant herbaceous flowers. And in the fall, students from SHA and Radnor were busy identifying the native plants and pollinators they attract.

Thanks to PHS for a Tree Vitalize Watersheds Grant; to Delaware County Conservation District for Mini-Grants; and to SHA and DCVA members for in-kind contributions that fund this project.

**Check DCVA website for events planned for 2019. There is more to be planted!**



At left: Meadowbrook Run before seeding  
At right: Clearing invasive plants  
On next page top left: Planting riparian zone native plants  
On next page lower left: Beautiful native flowers from seed  
On next page top right: Growth of native riparian plants  
On next page bottom right: New native growth in the area cleared of invasive plants

*All photos by Ann Jackson*

Photo key on page 5...



## Folcroft Landfill

**By Jaclyn Rhoads, DCVA President**

The Folcroft Landfill is located two miles downstream of the Clearview Landfill on the west side of Darby Creek in Folcroft Borough. The Folcroft Landfill is located partially within the John Heinz National Wildlife Refuge and is managed by the U.S. Fish and Wildlife Service. The landfill operated from the 1950s to the 1970s and closed in the mid-1970s, but the waste placed in the landfill still remains to this day.

Since the landfill is on Fish and Wildlife property, the US Fish and Wildlife Service owns the land. EPA has a legal agreement with a group of potentially responsible parties (PRPs) requiring them to perform the Remedial Investigation and Feasibility Study (RIFS), which are the first steps needed to move towards cleanup of the site. The Folcroft Landfill (OU2) Remedial Investigation Report and Appendices are now available:

RI Report - <https://semspub.epa.gov/src/document/03/2265189>

Appendices - <https://semspub.epa.gov/src/document/03/2267753>

The Feasibility Study for this landfill is underway and expected to be completed in 2019. The Study will evaluate clean-up options for the Folcroft Landfill and the related contaminated groundwater. DCVA's technical consultant is reviewing the report and providing comments for us to send to EPA which we will share with members in our next newsletter.

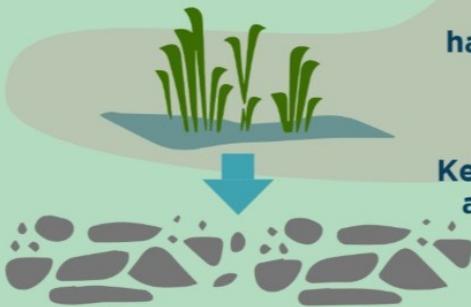
# 3 SIMPLE ACTIONS

you can take for cleaner water  
in your community

1

## RETAIN THE RAIN

Collect rainwater  
in rain barrels and  
use it to water  
your yard.



## USE CREEK-FRIENDLY LANDSCAPING

Create a beautiful,  
hard-working rain garden.

Use native plants.

Keep yard clippings on site  
and use them instead of  
chemical fertilizers.

2

## REDUCE POLLUTION

Use fewer  
yard chemicals.

Pick up pet waste.



Maintain your car  
to prevent oil leaks  
that can wash into  
our creeks and rivers.



to learn more and take action, visit [dvca.org](http://dvca.org)

# Innovative Road-Capture Rain Gardens for Naylor's Run Micro-Watershed: DCVA Completes NFWF Project

By Peter S. Puglionesi

Between 2016 and 2018, our project evaluated 26 residential and commercial properties in the Naylor's Run micro-watershed for possible rain garden installation and constructed ten rain gardens on private properties in this area, including two non-single family residential properties. An additional eight rain gardens were installed on public park land to receive runoff from public roadways, demonstrating that unsightly grassy areas can be beautified and repurposed to collect, treat, detain, and recharge stormwater runoff from impervious areas which will reduce peak flow and pollutant load to protect stream water quality. Darby Creek Valley Association completed this innovative work under a \$99,500 grant by the National Fish and Wildlife Federation and William Penn Foundation. Four of these public gardens were designed and installed solely by DCVA, its project partners and volunteers – also demonstrating that rain gardens can be installed at low cost with sweat equity provided by Township Public Works Departments and volunteers.

DCVA partnered with Haverford Township, the Hav-a-Rain Garden Program (a collaboration of the Haverford Environmental Advisory Committee and the Haverford Township Civic Council), and Eastern Delaware County Stormwater Collaborative and received assistance from the Pennsylvania Resources Council. In addition to rain gardens we

conducted two formal 3 hour Rain Garden Workshops, field instruction of School District of Haverford Township teachers and staff and mentoring of rain garden assessment/design apprentices.



Top Left: One of four rain gardens in Bailey Park designed by volunteers and installed by Haverford Township Public Works and Hav-a-Rain Garden volunteers.

Lower Left and Right: Bailey Park Rain Gardens Getting their 1<sup>st</sup> Workout in a Heavy Rain

*Photos by Peter Puglionesi*



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Hav-a-Rain Garden is a unique partner that has experience building over 40 rain gardens in Haverford Township at a rate of 10 per year. For this project, “extra points” were awarded in residential assessment project for the Naylor’s area to ensure that the requisite number of gardens would be built. Hav-a-Rain Garden also taps into a volunteer pool of over 300 people and has begun an apprenticeship program to train those in other townships how to assess, design and build rain gardens.

The project had its twists and turns, with the original road capture garden locations vetoed by the Township over concerns about PennDOT approval of work on a state road. Two different alternative locations on Township owned roads were selected to eliminate this obstacle. To stay on budget, DCVA decided to complete design and construction of the 4 Bailey Park gardens without a consultant or contractor – providing the opportunity to demonstrate that large public gardens can be cost-effectively completed by “in house” resources.

DCVA and its partners were required to provide a match of at least \$78,000 in the form of expenditures and in-kind services. While the Township didn’t quite hit its budget target, volunteer hour contributions were 373% of budget, pushing the overall in-kind contribution to over \$122,000.

### **What is a Rain Garden?**

Rain gardens are beautiful landscaped areas built down, instead of up, intercepting runoff from buildings, driveways and other impervious surfaces before it can reach the storm sewers and streams. Small gardens are typically 6-12 inches deep and drain within a day or two after a rain. Plants are typically both water and drought tolerant, meaning little or no watering is required after they are established.



Bring on the Rain! This spring 2018 Garden near Naylor’s Run is doing its job with room to spare after one of the summer’s deluges.  
*Photos by Peter Puglionesi*

### **Business, School and Homeowner Partners Sought**

Businesses, homeowners and schools are encouraged to request a rain garden or collaborate with DCVA on integrating rain gardens into the STEM curriculum. This project was focused in the Naylor’s watershed area but DCVA and its partners are pursuing other grant opportunities and can always provide technical assistance for anyone throughout the Darby-Cobbs watershed.

**Ask for a Rain Garden:** Small businesses or homeowners in Haverford who want a rain garden can contact [hava-raingarden@gmail.com](mailto:hava-raingarden@gmail.com). More information can be found at [www.facebook.com/HaverfordRainGardens](http://www.facebook.com/HaverfordRainGardens).

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**Adopt a Rain Garden:** Businesses can support rain gardens in many ways - maintaining a public garden, building one on their property, becoming Hav-a-Rain Garden sponsors or contributing to DCVA. Email us to learn more about becoming a sponsor.

**Start a Rain Garden Program in Your Township:** Hav-a-Rain Garden has already built over 40 rain gardens and has an objective of building 100 in 10 years at no cost to homeowners and training those in other townships through an apprenticeship program. Contact [havaraingarden@gmail.com](mailto:havaraingarden@gmail.com).

**Landscapers, Landscape Designers, and Builders:** The best way to learn is by doing. Hav-a-Rain Garden invites landscapers, landscape designers and builders to come out and join us to learn what it's all about.

**Interns:** College students and High School seniors seeking internships can help in a wide variety of ways, ranging from creating web-based design libraries to outreach to assisting in managing the program.

**Schools:** Integrate practical application of environmental science, math, geology and biology through teaching about, designing, building and maintaining rain gardens right in your own backyard.

### ***Rain Garden Workshop***

**Saturday, March 9 – 9am-Noon**

This Rain Garden Workshop will teach you how to build and maintain a Rain Garden yourself and how to help build rain gardens in your community. You can sign up for later opportunities to gain hands on experience by helping build our late spring rain gardens or apprenticing by assessing potential locations and designing rain gardens. Presented by Darby Creek Valley Association, Eastern Delaware County Stormwater Collaborative and Hav-a-Rain Garden who have designed and built more than 60 rain gardens in the region at parks, libraries and private properties. Free, Advance Registration Required at <http://www.dcva.org/event-3221549/Registration>.

## **Ecological Adaptive Management Approaches In Urbanized Watersheds**

**By Carl Dupoldt**

The concept of learning about natural resources through the practice of management has been around for several decades and by now is associated with the term adaptive management. Adaptive decision-making is described as iterative, learning-based management in two phases, each with its own mechanisms for feedback and adaptation. The use of adaptive management as a resource management technique began in the 1970s. Adaptive management tries to incorporate the views and knowledge of all interested parties. It accepts the fact that management must proceed even if we do not have all the information we would like, or we are not sure what all the effects of management might be. It views management not only as a way to achieve objectives, but also as a process for probing to learn more about the resource or system being managed. Adaptive management includes six steps. These are: (1) Assess, (2) Design, (3) Implement, (4) Monitor, (5) Evaluate, (6) Adjust

Adaptive management of natural ecosystems is an iterative process in which management actions are followed by targeted monitoring. In the context of climate change, adaptive management involves the knowledge of potential climate impacts and associated uncertainty, the design of actions to cope with them, the monitoring of climate-sensitive species and processes to evaluate management effectiveness, and the redesign and implementation of improved (or new) management actions.

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- Changes in species abundance and distribution
- Changes in habitats which species occupy
- Changes in phenology which may lead to loss of synchrony between species
- Changes in community composition
- Changes in ecosystem processes, functions and services
- Loss of space for habitats and ecosystems (e.g. due to sea level rise)

Adaptive management can and should utilize experience accumulated up to the present, whatever its source, in structuring a resource problem, identifying feasible management options, and resolving uncertainties about management impacts. The underlying idea is that a process of using management itself to reduce uncertainties can accelerate learning and lead more rapidly to informed management.

**References:**

The Role of Adaptive Management as an Operational Approach for Resource Management Agencies – <https://www.ecologyandsociety.org/vol13/iss2/art8/>

ADAPTIVE MANAGEMENT -- <https://nau.edu/eri/restoration/the-er-process/adaptive-management/>  
Adaptive management of natural habitats (2015)—

<https://climate-adapt.eea.europa.eu/metadata/adaptation-options/adaptive-management-of-natural-habitats>

Adaptive Management of Watersheds and Related Resources -- <https://pubs.usgs.gov/sir/2009/5049/pdf/WilliamsManuscript.pdf>

Management, Monitoring and Restoring Urban Streams -- [http://www.rrnw.org/wp-content/uploads/201010903\\_11-Booth.pdf](http://www.rrnw.org/wp-content/uploads/201010903_11-Booth.pdf)

Adaptive Watershed Planning and Climate Change --- [https://www.researchgate.net/publication/228283705\\_Adaptive\\_Watershed\\_Planning\\_and\\_Climate\\_Change](https://www.researchgate.net/publication/228283705_Adaptive_Watershed_Planning_and_Climate_Change)



## Stormwater Retrofits in Urban Areas

By Carl Dupoldt

Numerous cities and metropolitan areas in the US are faced with the challenge of trying to meet pollutant reduction goals for Impaired Waters in fully developed urban areas. Stormwater projects in urban areas are limited by extensive infrastructure, established land uses and little to no vacant land to use for conventional stormwater projects. This requires the often expensive and disruptive prospect of retrofitting urban areas to meet.

Urbanization has altered the natural landscape and affected the hydrologic cycle. Where the natural hydrologic cycle maintains a balance of water circulation through evaporation, precipitation, infiltration/groundwater recharge, and absorption and transpiration by plants, urbanization has resulted in an altered hydrologic cycle through construction of impervious surfaces such as buildings, roads, and parking lots. The amount of groundwater recharge has been reduced while the volume and rate of runoff has been increased. For decades the philosophy of urban stormwater management was to collect stormwater runoff as quickly as possible, remove it from the surface, and either discharge it directly to a waterway or transport it for treatment and discharge to the rivers our water quality goals.

Stormwater Management Practices (SMPs) can easily be integrated into existing landscapes to intercept runoff and provide retrofit opportunities for property owners. SMPs include a range of soil-water-plant systems and subsurface systems that manage stormwater runoff. The SMPs intercept stormwater, infiltrate a portion of it into the ground, evaporate a portion of it into the air, and in some cases, release a portion of the captured stormwater slowly back into the sewer collection system. SMPs treat stormwater runoff as a resource to be incorporated into the urban environment instead of as a waste product requiring removal and treatment.

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**References:**

Stormwater Retrofit Guidance Manual -- <https://www.phila.gov/water/PDF/SWRetroManual.pdf>  
Financing Stormwater Retrofits in Philadelphia and Beyond - <https://www.nrdc.org/sites/default/files/StormwaterFinancing-report.pdf>  
Pennsylvania Stormwater Best Management Practices Manual - [http://www.dep.state.pa.us/dep/subject/advoun/stormwater/Manual\\_DraftJan05/Section07-jan-rev.pdf](http://www.dep.state.pa.us/dep/subject/advoun/stormwater/Manual_DraftJan05/Section07-jan-rev.pdf)  
Maintenance and Retrofit of Stormwater Management Measures- [https://www.state.nj.us/dep/stormwater/bmp\\_manual/NJ\\_SWBMP\\_8%20print.pdf](https://www.state.nj.us/dep/stormwater/bmp_manual/NJ_SWBMP_8%20print.pdf)  
Stormwater Retrofit Techniques for Restoring Urban Drainages in Massachusetts and New Hampshire - <https://www3.epa.gov/region1/npdes/stormwater/assets/pdfs/BMPRetrofit.pdf>  
Stormwater Management Handbook - Implementing Green Infrastructure in - Northern Kentucky Communities [https://www.epa.gov/sites/production/files/2014-04/documents/stormwater\\_management\\_handbook\\_kentucky.pdf](https://www.epa.gov/sites/production/files/2014-04/documents/stormwater_management_handbook_kentucky.pdf)  
Retrofitting a Major Retail Mall for Stormwater Volume Reduction -- [https://www.rwmwd.org/wp-content/uploads/Retrofitting\\_a\\_Major\\_Retail\\_Mall\\_for\\_Stormwater\\_Volume\\_Reduction\\_Land\\_and\\_Water\\_Sept-Oct2012-1.pdf](https://www.rwmwd.org/wp-content/uploads/Retrofitting_a_Major_Retail_Mall_for_Stormwater_Volume_Reduction_Land_and_Water_Sept-Oct2012-1.pdf)  
Washington State Dept of Transportation - Management Stormwater Retrofit Program - <https://www.wsdot.wa.gov/sites/default/files/2018/04/23/StormW-Retrofit-ManagementPlan030918.pdf>



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## Eco-Therapy

By Carl Dupoldt

Ecotherapy, also known as nature therapy or green therapy, is the applied practice of the emergent field of ecopsychology, which was developed by Theodore Roszak. According to Howard Clinebell, who wrote a 1996 book on the topic, “ecotherapy” refers to healing and growth nurtured by healthy interaction with the earth. He also called it “green therapy” and “earth-centered therapy.” Although Clinebell preferred the term “ecotherapy,” which includes work with the body, to “ecopsychology,” the study of our psychological relations with the rest of nature, it is clear that ecopsychology provides a solid theoretical, cultural, and critical foundation for ecotherapeutic practice. For this reason we regard ecotherapy as applied ecopsychology. Ecotherapy is the name given to a wide range of treatment programmes which aim to improve your mental and physical wellbeing through doing outdoor activities in nature. Connecting with nature in this way can have lots of positive health benefits. Some of the more common ecotherapy activities are nature meditation, horticultural therapy, animal-assisted therapy, physical exercise in a natural environment and involvement in conservation activities.

Ecotherapy often involves nature walks where patients are instructed to focus on key elements such as the sound of water in streams or rivers, sound of chirping birds and sights of trees, leaves and wildlife. Healthcare providers are incorporating Ecotherapy in their treatment regimens for a range of conditions, including anxiety and depression, attention deficit disorder and chronic illness such as diabetes and high blood pressure. So the next time you feel depressed or frustrated, don’t choose retail therapy or mood-altering medication – put on your walking boots and try ecotherapy instead. You may not just get a boost of well-being, but an awakening experience as well.

**References:**

The Power of Nature: Ecotherapy and Awakening--<https://www.psychologytoday.com/us/blog/out-the-darkness/201204/the-power-nature-ecotherapy-and-awakening>  
What is ecotherapy? -- <http://www.ecotherapyheals.com/whatisecotherapy.html>  
Do You Need a Nature Prescription? -- <https://www.webmd.com/balance/features/nature-therapy-ecotherapy#1>  
Ecotherapy: an introduction -- <https://www.youtube.com/watch?v=0NJDnEGWpzU>  
What is Ecotherapy? -- <https://www.youtube.com/watch?v=UeV98nSrSZ4>

# Little Flower Open Space Master Site Development Plan

## Points Toward the Future

By John Haigis

The Little Flower Open Space Master Site Development Plan was accepted by Delaware County Council on December 5, 2018 and it is a good foundation on which to build, keeps Woodburne Mansion as part of the plan, and sets a direction for future work. As the largest parcel of open space in Eastern Delaware County, the County is to be commended for their commitment to open space and the environment.

The 32 acres and buildings of what has been known at various times as the Bartram Farm (which once went all the way to the Darby Creek), the Heights of Darby, Woodbourne, Woodburne, The Scott Estate, Little Flower Institute, and now Little Flower Park came under County Stewardship in 2016. Located partly in Upper Darby Township and partly in Darby Borough, the land is uncommon common ground, touching Aldan, Yeadon, Collingdale, the Darby Creek Greenway and the Darby Creek itself. The magnificent but compromised Mansion, designed in 1906 by noted architect Horace Trumbauer with the possible involvement of Julian Abele who is buried across Springfield Road at Eden Cemetery, was for many years an orphanage operated as Little Flower Institute by the Sisters of the Divine Redeemer and later a nursing home known as Villa St Theresa. As an aside, Little Flower Manor, the next door nursing home owned and operated by Holy Redeemer Health Care, is under separate management. The land is a plateau overlooking Darby Creek with large areas of wooded steep slopes going down to the creek to a trail envisioned as connecting with Penn Pines Park to the north and the Heinz Wildlife Refuge to the south. The land is also believed to have been part of the Great Minquas Path, connecting the Susquahannock region to the Dutch and Swedish fur trading posts along the Schuylkill and Delaware rivers.

The Mansion, commissioned by Edgar Thompson Scott, father-in-law to Hope Montgomery Scott who was the inspiration for Tracy Lord in "The Philadelphia Story," was vandalized sometime after 2013 when copper flashing was stolen from the valleys of the roof and from around the chimneys and dormers allowing water into the building. On December 5th, County Council also authorized the solicitation of bids to stop the leaks into the building. Because of the extensive water damage from the leaks, it is a challenging dilemma for County Council.

While the future of the Park is bright, the future for the Mansion is not so certain. The Mansion has been horribly damaged. The County is looking for partners and a Friends of Woodburne group has been formed. "The park's proposed facilities, which capitalize on existing elements of the landscape, include a scenic overlook to allow for viewing of the Darby Creek stream valley, an allée of trees connecting various areas of the site to the Mansion, picnic groves, multi-purpose unmarked open space, tot lot, an internal trail system, and connection to the Darby Creek Trail. An educational center is proposed for "The Barn," which will also act as a trailhead." (Plan ES-5)

The Master Plan can be found online at <https://www.delcopa.gov/planning/pubs/LittleFlowerOpenSpaceMasterSiteDevelopmentPlan.pdf> and more information about the Mansion can be found at <http://www.darbyhistory.com/Woodburne>

Woodburne Mansion

Photo by John Haigis



## Cemeteries, Treasure Troves of History By John Haigis

Ralph Waldo Emerson once famously observed, "All history is biography." If this is true, the Darby Creek Watershed is filled with stories in its cemeteries like Mount Moriah, Mount Lawn, Eden, Darby Friends Burial Ground, Holy Cross, and many more. In the same way that our settlement patterns centered on our creeks and rivers, so did our choices for final places of rest, at first in church yards, and then later as memorial parks through the Rural Cemetery Movement.

The Rural Cemetery Movement was in part a reaction to urbanization and the industrial revolution and saw cemeteries as places of beauty, rest and reflection that were especially designed for both the living and the dead. One of the most famous is Mount Auburn in Massachusetts. In our area, Laurel Hill is among the more shining examples. Joseph Story, who gave the consecration address at the dedication of Mount Auburn in 1831, said, "There is, therefore, within our reach, every variety of natural and artificial scenery... We stand as it were upon the borders of two worlds; and ... may gather lessons of profound wisdom by contrasting the one with the other." Cemeteries became popular tourist destinations, and even today they connect the world of the past with the world of the present, and are places of learning, reflection, and beauty.

Mount Moriah Cemetery, with sections both to the east and the west of Cobbs Creek (which flows into the Darby Creek), is another local example of a rural cemetery. Chartered in 1855 and neglected for many years, the rolling hills, monuments and vistas are being brought back to life by the Friends of Mount Moriah Cemetery. Among the notable residents are many Civil War veterans and winners of the Congressional Medal of Honor, and, for a time, flag-maker Betsy Ross, who was moved to Mount Moriah and later moved to the Betsy Ross House. The life and journeys of Elizabeth Griscom Ross Ashburn Claypoole (3 times married, 3 times buried) is the topic for another article at another time. Another interesting feature at Mount Moriah is the trolley loop near the gatehouse, where the Hillside Funeral Car would bring mourners and the body by trolley. Another is the grave of a cabin boy in the shape of the ironclad Monitor. Accessible via the No. 13 trolley, Mount Moriah is well worth the visit.

The custom of moving bodies is not new, as urban renewal and development disturbed the rest of many loved ones. One of the places where this is most apparent is on the fifty-three acres of beautiful rolling hills and level ground, at Historic Eden Cemetery. Eden, which was once the Bartram family farm which went all the way to Darby Creek, was chartered in 1902. America's oldest African-American owned burial ground, it is on the National Register. Eden became a receiving cemetery for other cemeteries with about 93,000 people buried at Eden, including re-interred remains from Lebanon Cemetery, the Stephen Smith Home for the Aged and Infirm Colored Person's Burial Ground, Olive Cemetery and the First African Baptist Church Burial Grounds, all Philadelphia cemeteries disrupted by urban construction. Among the notable burials are singer Marion Anderson, Underground Railroad icon William Still, and abolitionist, poet, and teacher Frances Ellen Watkins Harper, who did a sit-in on a streetcar 100 years before

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**Continued from previous page.....** Rosa Parks. Among notables moved are Octavius Catto and Jean Pierre Burr, the son of Aaron Burr. Some of their stories are on the Eden website below and many more wait to be uncovered.

Stories abound in our cemeteries of the lives and legacies of the people who came before us, and some are not so savory, but all can be instructive. For example American serial killer, con artist and bigamist Herman Webster Mudgett (better known as Dr. Henry Howard Holmes or more commonly known as H. H. Holmes,) is buried at Holy Cross Cemetery which sits atop Blunston’s Run which flows into the Darby Creek. Beloved and flamboyant bootlegger “Mickey Duffy” born (Michael Joseph Cusick) was buried in Mount Moriah after a funeral where thousands of people lined the street to see his funeral procession and a 31-car procession accompanied Duffy’s body. There are stories that families who had no coal for the winter found their bins full of coal, courtesy of this complex man.

Notable and obscure, prosaic and sublime, people leave their stories on the shifting sands of time. We are surrounded by stories. I will conclude with the prayer read at the dedication of Green River Cemetery in Greenfield Mass in 1851, “With solemn heart and sacred rite we come to consecrate the place, where men of differing creeds unite, to rest alike in death’s embrace”

**References:**

Friends of Mount Moriah Cemetery <https://friendsofmountmoriahcemetery.org/>  
Eden Cemetery Website <https://www.edencemetery.org/new-index/>  
Information on the Rural Cemetery Movement  
<https://blogs.stockton.edu/nature/files/2011/09/Bender-The-Rural-Cemetery-Movement.pdf>  
<https://www.crl.edu/focus/article/8246>



Mount Moriah Cemetery Photo by J. Haigis

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## Another Rain Garden at Trinity

**By Mary Westervelt**

Trinity Presbyterian Church, Berwyn, PA, has been working since 2015 to add native plants and control storm-water on church property (see *The Valley*, September, 2017). A new garden, coupled with underground pipe, has been added to keep storm water from flooding the church basement without adding to runoff entering the local tributary of Darby Creek. The constraints were many, and the workers were few – but the work still got done!

Before the project, church roofs drained to a downspout that emptied into a yard used by the preschool as their Environmental Education Center (EEC). Downspout extenders brought the water away from the building, but left it to flood the EEC yard. Adding a rain barrel did not help. Even two rain barrels proved woefully inadequate to hold the amount of water entering the downspout. A new solution was needed that would carry the water away from the building, would not flood the preschool EEC yard, and would not dump the water into the nearest storm drain.

Preschool staff were open to the idea of having a rain garden – but it could not take more of the yard than was occupied by four raised beds, each 4 ft x 4 ft, where the children planted vegetables. Furthermore, the teachers wanted the raised beds to still be part of the rain-garden area, and they wanted it clear where the children were allowed to

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step in order to work in their raised beds. In addition, the water needed to get to the rain garden without creating a hazard for the children – a surface stream would not work. The first step, then was to bury perforated pipe from the downspout to the rain garden area. That work was contracted and completed in April. Digging the rain garden had to wait till preschool and day camp were over in late June. However, it was August before the rain let up enough so that work on the actual rain garden could begin – and the work had to be complete before the kiddies came back to school in the fall!



Progress after a week's work is shown in the photo (left). Only a small central area was dug deep, with sand and topsoil added back to allow water to soak in. Heavy clay soil was removed and used to form a berm at the downslope edge, near the fence. Three raised beds were placed within the borders of the rain garden. Their topsoil was replaced, and stone was laid between the raised beds so the kiddies could work in them. Finally, native plants were added.

Would such a small rain garden really work in the rain? So far it has. This photo (right) shows that rainfall in a September storm was heavy enough to blow off the cap (at end of arrow center right) of the underground pipe. However, the water stayed within the rain garden and was completely absorbed after an hour. The preschoolers are enjoying the new learning space in their Environmental Education Yard, the church is staying dry, and no water is being added to the local storm sewers from this property!



**Photo at left:** Pam Koch and Mary Westervelt ponder the best planting scheme for the new rain garden. Photo by Don Bovais. Rain garden installation was the work of these three volunteers.

New Sweden Settlement started on Darby Creek in 1643. Johan Printz served as military governor from 1643 to 1653. An early first priority was the erection of a corn-grain grinding mill. The winds at the mouth of Darby Creek near the Delaware River supported the idea that a wind driven mill could be erected successfully. One was erected but was faulty and was abandoned.

Thought was then given to building a mill upstream in the Darby Valley. In the 1640's, a so-called tub mill was built on what is now called Cobbs Creek, the largest branch of Darby Creek. The mill stood on four stilts upon Cobb's Creek. It is this cricker's opinion that Cobb's Creek was chosen over Darby Creek proper because the mill could withstand the lesser currents on Cobb's, especially in heavy storm flow. The mill had a vertical axis in the center with four paddles on the bottom which turned grind wheels on a platform above water level. A hopper provided a channel in which to pour the grain through the grinding stones. At either end was a sluice: one aimed upstream and channeled water upstream into the mill, the opposite downstream sluice channeled water back into the creek. A crossing horizontal gate blocked upstream water from coming into the mill. This gate could be lifted and lowered. When the gate was lowered the mill ceased to operate, when lifted the mechanism worked. The mill successfully ground grain and corn for the settlement.

This cricker has noted that the location of this mill was central to all of the settlements in the area. The tub mill was still standing by in disrepair at the time of William Penn's arrival in 1682. Governor Penn wisely took the opportunity to repair the mill and make it useful again. Four Quakers interested themselves in the mill. The majority partner named was William Cobb. Soon after the mill was named Cobb's Mill and the stream took the name Cobb's Creek. From this lowly beginning, the milling industry on Darby Creek commenced.

**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**

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

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

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

Senior Citizen or Student..\$15	Friend (Individual)..\$25	Patron..\$100	Protector..\$250
Steward..\$500	Guardian..\$1,000	Conservationist..\$2,500	Preservationist....\$5,000
			Superhero....\$10,000

# CALENDAR

- DCVA Board Meetings .....Third Saturday of each month Delaware County Peace Center
- Citizen Scientist Training.....Monday Feb 11, 2019 6:30 PM Pennypack Ecological Trust, Huntington Valley, PA
- Annual Meeting .....Saturday March 2, 2019 8:30 AM  
Haverford Community and Recreation Center  
9000 Parkview Drive, Haverford, PA
- Stream Watch.....April 6, 2019 Throughout the Darby Creek Watershed
- Annual Cleanup.....April 13, 2019 Darby Creek/Cobbs Creek Watershed Wide
- Pollinator Gardens and Design Workshop.....Saturday May 11, 2019 1 PM, CREC, Haverford, PA

*~Please see the DCVA website for more information on each of these events~*

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