Lower Merion Conservancy
Fall 2022

THE STEWARD

Newsletter of the Lower Merion Conservancy

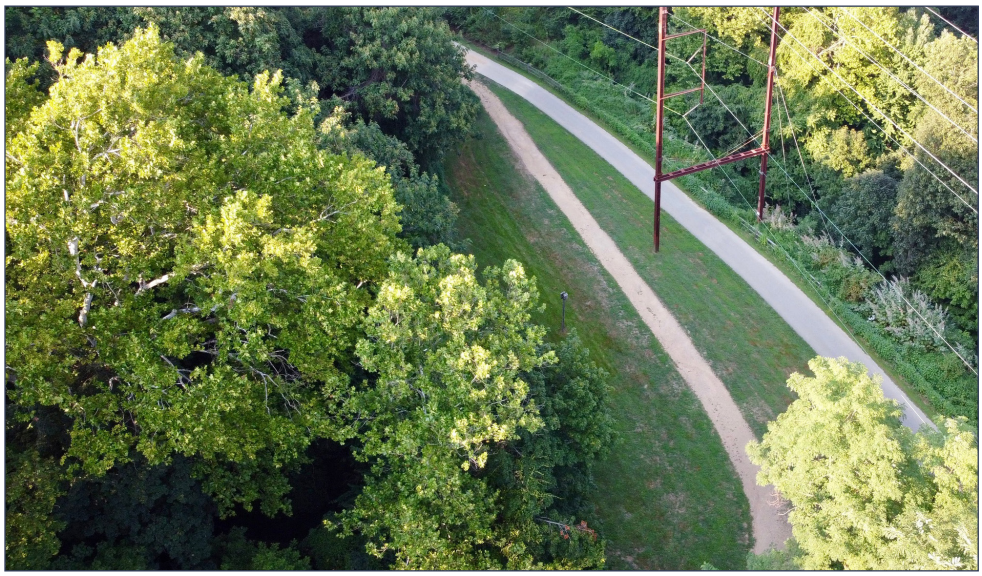
Cynwd Heritage Trail Habitat Expansion Project

In 2020, the Conservancy received a grant from the National Fish and Wildlife Foundation to improve stormwater management, restore wildlife habitat, and improve recreational access along the Cynwyd Heritage Trail and adjacent Vine Creek, a tributary to the Schuylkill River.

Area of Cynwyd Heritage Trail slated to become a meadow of native plants.

During heavy storms, rain water rips down sections of the Cynwyd Heritage Trail, forcing gravel, sediment, and other pollutants to wash over the trail and into the creek. This stormwater comes from uphill roadways and storm sewer pipes, which transport water from impervious surfaces like streets, roofs, driveways, parking lots, and shallow-rooted turf grass. Runoff along the Trail exacerbates flooding and worsens erosion, sending more sediment downstream and into the Schuylkill River. Excess sediment cuts off light to important aquatic plants, smothers aquatic animals, and impacts drinking water supplies. Even small rain storms can create enough runoff to impact water quality.

There are ways to mitigate stormwater runoff that do not involve underground piping, walls, holding tanks or culverts that dump unfiltered water into our streams. Alternative strategies naturally capture and filter stormwater, and if done correctly, are sustainable and greatly beneficial to the health of wildlife and people. Strategies include: planting trees to form deep root systems that absorb water, stabilize soil and shade streams; replacing mowed lawns with native meadows; diverting stormwater from its impervious source towards planted spaces; and increasing the width of riparian areas to dissipate water during high stream flows.



A drone photo shows an aerial view of part of the Cynwyd Heritage Trail that is included in the Wildlife Habitat Expansion Plan.

Utilizing these green strategies at a scale large enough to restore wildlife habitat and produce measurable improvements in stream health can be challenging. The Conservancy recently contracted with Gray Landscape Design, LLC to create a plan for achieving the goals of the grant. In consultation with Gray Design, the Friends of the Cynwyd Heritage Trail and Lower Merion Township, we are implementing a landscape plan that will address five major areas along the trail. For a peek at more of the final plans, see page 6.

Insider Perspective on Ditching Your Lawn

The garden features a wide variety of native plants that will grow and spread over time.

The Conservancy caught up with neighbors Aliya McCullough and Daniel Hinze to ask them some questions about their recent lawn replacement projects.

1. Aliya, what inspired you to convert your lawn to garden?

My husband, David, and I were inspired by the Delmont Green Street project and by the native gardening talk presented by the LM Conservancy given by Michele Detwiler. We live on an adjoining street to Delmont, and we loved seeing our neighbors and the LM Conservancy transform their yards into native plant gardens. When we decided to change over our yard, our neighbors on Delmont were really helpful. They shared advice, inspiration, and even some plants!

2. Were there any highlights that stood out to you this year (visits from pollinators, noteable blooms, faster growth than expected, etc.)?

Our front lawn is visited by so many pollinators from bees, butterflies, and many bird species. There have been three major visitor highlights: The first was seeing a downy woodpecker soon after we changed the yard into a garden. That's when we realized we were going to have lots of new visitors. The second was seeing a hummingbird on our cardinal flower. They are so cute! The third highlight was seeing a monarch caterpillar the day after monarch butterflies were named an endangered species. Looking for visitors in the garden is now a major family activity. We've bought several nature guide books and are constantly learning new things. It's also been fun seeing flowers that naturally popped up that I had not planted.

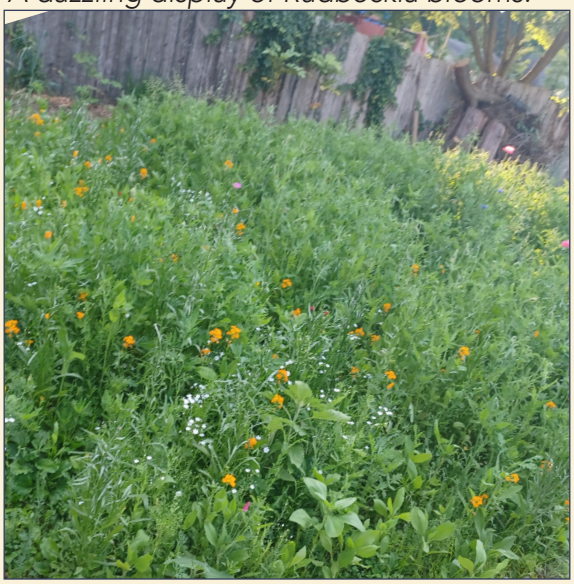
The cardinal flowers (Lobelia cardinalis) that attracted the hummingbirds on the right side. Coneflowers (Echinacea spp.) are in bloom throughout the photo.

3. Do you have any recommendations for others who are considering making the conversion?

The most wonderful thing about our garden is that it was and still is a community project. Neighbors loved stopping by and talking with us as we made the transformation and have enjoyed seeing the yard grow and change. I recommend reaching out to gardening friends and neighbors for advice, help, and plants. We were gifted many plants and flowers and I look forward to returning the favor and paying it forward for neighbors that want to convert their lawns to gardens.

View from the front yard.

A dazzling display of Rudbeckia blooms.



Plant life all grown from seed.

1. David, what inspired you to convert your lawn to garden?

I wanted to create a space for wildlife and avoid the constant lawn mowing. My wife did not like us letting the grass grow - she was concerned about offending the neighbors. She was happy to have a rather unruly wildflower meadow, though. I've had lots of people telling me how much they like it (even people stopping their cars on the way past). The street would look great if more people converted their front lawns - not to speak of the reduction in noise and noxious exhaust gases from less lawn mowing.

2. Were there any highlights that stood out to you this year (visits from pollinators, notable blooms, faster growth than expected, etc.)?

I sowed wildflower mixes that created a wonderful spring display - the yard was buzzing with insects. I also attracted monarchs with milkweed. I get the impression that we've also got more birds visiting the garden - there were goldfinches feasting on flower seeds. I was really amazed how easily everything grew - just from seed.

3. Do you have any recommendations for others who are considering making the conversion?

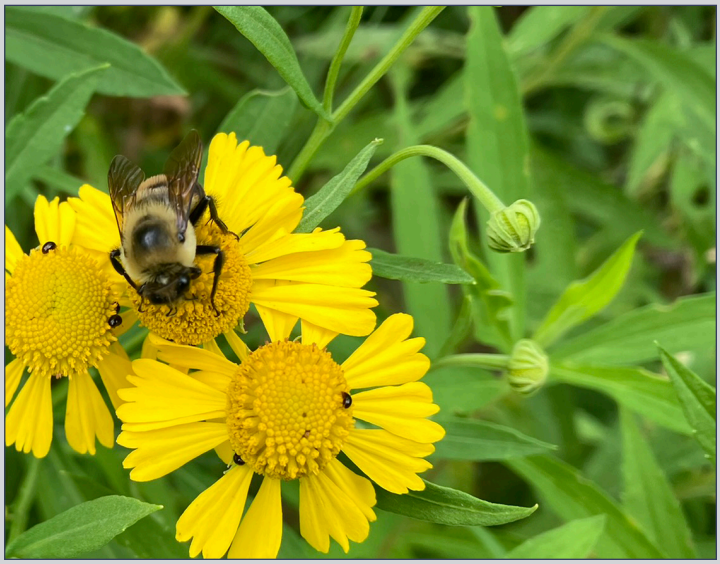
The preparation is the most labor-intensive part. The flower seeds need to be sown on bare earth. I tried to remove the grass by covering one patch with a tarp but you probably need to keep it on the ground for three months at least - I only left it on for about six weeks and the grass was not entirely dead. Elsewhere I removed the grass sods entirely and left bare earth for sowing.

I sowed different wildflower mixes in early winter and then again in March when I panicked because nothing came up. In the end, I over-seeded most of the area. This meant that I had dense growth in spring (mostly cornflowers and poppies) but the later-blooming flowers were suffocated and much of the area was quite bare and unattractive in late summer. One patch that was less densely seeded and which looked a bit sad in early spring was doing much better throughout the season. This is the first year and I hope that the garden finds an equilibrium over time. The idea is that the annuals self seed and you only need to weed-whack the yard once a year when the annuals are dead. I had to remove a lot of cornflowers to give autumn-flowering plants some light and I was also removing crab grass, dock and other weeds to maintain the meadow. If I were to do it again, I think I'd only sow a native North-East wildflower mix without poppies and cornflowers. That would probably be less splendid in spring but more manageable throughout the year.

Transitioning Rain Garden Back to Woodland

An eastern tiger swallowtail feeds on the nectar of Joe-Pye blooms.

Seedheads and dead stalks are left intact providing valuable food and habitat for animals and insects.



A bee collects pollen from sneezeweed, a plant that readily self seeds within gardens.

Since the Conservancy moved into the cottage in Rolling Hill Park in 2001, we have cared for it and the one acre of land surrounding it. When the driveway leading to the cottage was paved by the township, the Conservancy installed a rain garden and nature playscape to create a public education opportunity. The garden was designed to slow rain water flowing off of the driveway and display a variety of native plants in action. Pollinators thrive on the Joe Pye (*Eutrochium* spp.), sneezeweed (*Helenium autumnale*), mountain mint (*Pycnanthemum muticum*) and other native plant blooms throughout the growing season.

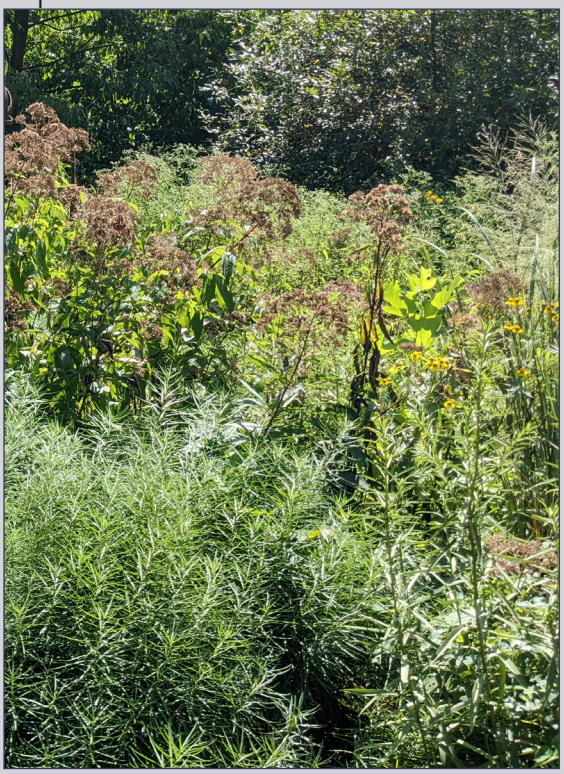
As much as we enjoy seeing the interactions between flowers and pollinators throughout spring, summer and fall, we also acknowledge the ecological benefits that occur in late fall and winter. Dormant plant stalks serve as habitat for overwintering insects and dead flowers provide seeds for birds. Fallen leaves and decaying wood are very important for nesting and overwintering wildlife. The common autumn practices of raking leaves and cutting plant stalks to the ground eliminate valuable habitat, reducing the number of beneficial animals and insects that can survive through winter. In the Rolling Hill Park garden, we leave leaves and stalks in place to help pollinators thrive during the winter months.

The choice to leave dead flowers in place – as opposed to deadheading them - has led to re-seeders (new plants) popping up within the garden beds and outside their borders. In the past, we transplanted some of the re-seeders to different gardens, but we are now letting them grow to expand the garden's footprint and combat invasive plants. These re-seeders include native perennial plants and tree seedlings, which will be kept in place to help fill in the forest canopy over time.

Local wildlife has evolved to live in and around the deciduous forests that make up our natural landscape. Pressure from deer browsing and invasive vines often prevents woodlands from recovering. By letting new tree seedlings pop up on their own while also adding a diverse array of native trees from local nurseries, we hope to transition the space around the cottage back to woodland. The process is slow, but we are seeing progress. A tulip poplar planted in 2017 is already about 30' tall!

Although the conditions in Rolling Hill Park are much different from those in a residential garden spaces, these pollinator-centric practices are worth applying on any scale. In your own garden, wait to cut plant stalks back until the spring. If you do cut them back, leave them at least 18" off the ground, so they continue to provide nesting space. Leave the leaves where they land in the garden and let them serve as your mulch.

Reforestation is another good goal for the home landscape. Many properties in the Greater Philadelphia area have space for more trees. You can probably find trees re-seeding in your garden as we do in Rolling Hill Park. Whether you use your re-seeders or purchase new trees from a nursery, native trees are great property additions for gardeners of all experience levels.



A tulip poplar volunteer grows amongst Joe-Pye, boneset, sneezeweed, and Amsonia in the expanded garden.

To the Creek and Beyond!

In 2020, the Conservancy successfully pivoted our education programs as the social landscape changed from the Covid pandemic, and in-person education was not possible. Over the past two years, programs were redeveloped to be offered via Zoom. Conservancy staff worked hard to ensure that the programs remained interactive, despite the virtual setting. As restrictions have eased, the Conservancy is looking forward to once again offering a multitude of in-person educational programs in the 2022-2023 school year.

In conjunction with in-class programming, the Conservancy is excited to bring local students to our waterways for aquatic ecology lessons. With students performing hands-on water chemistry and macroinvertebrate analysis, these field trips help to create a solid connection between classroom learning and the real-world environment.

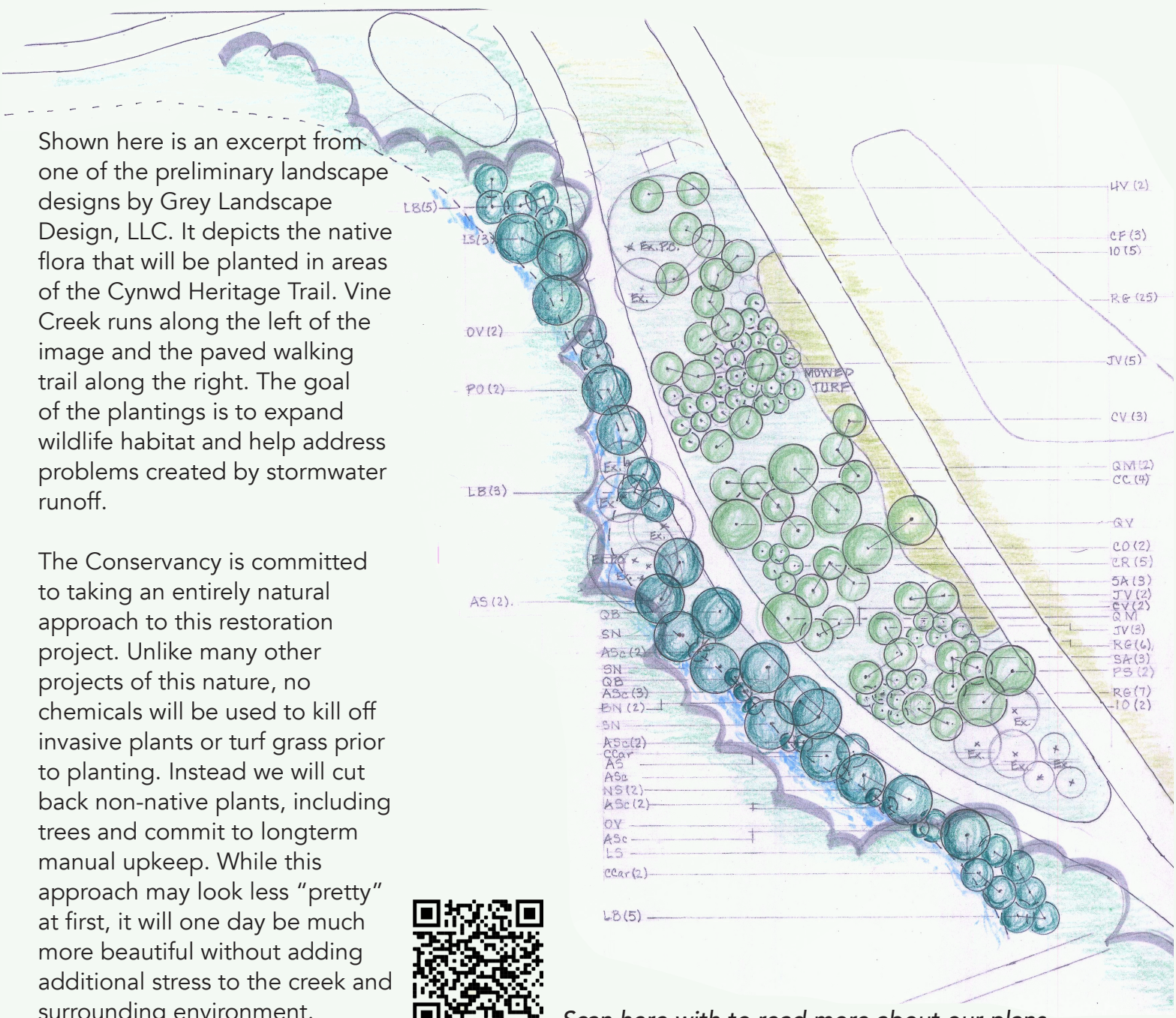
To bolster this education and outreach work, the Conservancy has received grant funding from the PA Department of Environmental Protection and PECO. With this support, we will help students understand the connection between stormwater, water quality and climate adaptation. We will work to educate students about how nonpoint source stormwater pollution is generated and how the solutions to these problems can help to tackle climate change issues. We will offer support to budding extracurricular environmental clubs as well as implement small green stormwater infrastructure practices on school properties with students and teachers. These practices include planting trees and replacing lawn areas with native pollinator plants, rain gardens, or downspout planters.

Conservancy educator Candice Jeffries points out macroinvertebrates to students in Mill Creek.

Cynwd Heritage Trail Habitat Expansion Cont'd

Shown here is an excerpt from one of the preliminary landscape designs by Grey Landscape Design, LLC. It depicts the native flora that will be planted in areas of the Cynwd Heritage Trail. Vine Creek runs along the left of the image and the paved walking trail along the right. The goal of the plantings is to expand wildlife habitat and help address problems created by stormwater runoff.

The Conservancy is committed to taking an entirely natural approach to this restoration project. Unlike many other projects of this nature, no chemicals will be used to kill off invasive plants or turf grass prior to planting. Instead we will cut back non-native plants, including trees and commit to longterm manual upkeep. While this approach may look less "pretty" at first, it will one day be much more beautiful without adding additional stress to the creek and surrounding environment.



Scan here with to read more about our plans.

Plant Community Color Key

- Riparian basin, swale shrub / tree
- Riparian basin, swale herbaceous
- Upland shrub / tree
- Meadow warm season grasses
- Meadow perennials
- Meadow cool season grasses
- Mowed turf

GRAY LANDSCAPE DESIGN, LLC

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Data Data, Read All About It!

The Lower Merion Conservancy has begun installing Enviro DIY loggers in local streams. These loggers were developed by the Stroud Water Resource Center as a way for local conservation organizations to better assess stream health in a cost effective manner. With support from Stroud, Conservancy staff programmed their own sensors and learned the ins and outs of installing them properly. The loggers utilize a Mayfly board with Arduino software that works with commercial in-stream data sensors which are powered by a solar panel. Each logger will upload the data collected from the sensors every five minutes to a centralized website, monitormywatershed.org.

Stroud and Conservancy Staff pose next to our first EnviroDIY logger install at Vine Creek.

The loggers that the Conservancy is installing will monitor water temperature, depth, and conductivity. Capturing temperature data is particularly important during hot summer storms when rain runs over hot asphalt, causing thermal pollution to our creeks. Depth data will document the volume of water that rushes into our streams during storm events. Seeing the depth fluctuations will help to create an understanding of the impact green stormwater infrastructure projects have on the volume of water that enters streams during storm events. The increased discharge created by stormwater entering our creeks causes flashy conditions that can scour the streambanks and streambed and damage habitat for aquatic life. Further, surges of water can create dangerous flooding situations for people. Conductivity, which measures the ions in the water, correlates to the ability of water to pass electricity. Conductivity data is used to understand the salinity of water. As salinity increases, the conductivity will increase. Conductivity is also useful as a general measure of water quality, as significant changes to conductivity can indicate the presence of other pollutants besides salt.

Stroud staff records the details of logger installation along Vine Creek.

Our first installation point was in Vine Creek along the Cynwyd Heritage Trail. This location will give us valuable data about the impact of our restoration project on the creek. Our next location will be in the East Branch of Indian Creek in Shortridge Park. This will be of particular interest for our ongoing student Stream Study with nearby Shipley Lower School students. With installation taking place in early fall, data will begin to be gathered before winter salting begins and will be able to track the rise and fall of salt levels in the water. Long term, data from the loggers will help to create a more holistic picture of the health of our streams and how it might change over time.

Olmsted Brothers

Brick entry piers to the Edward Bok estate, Highland Avenue, Merion.

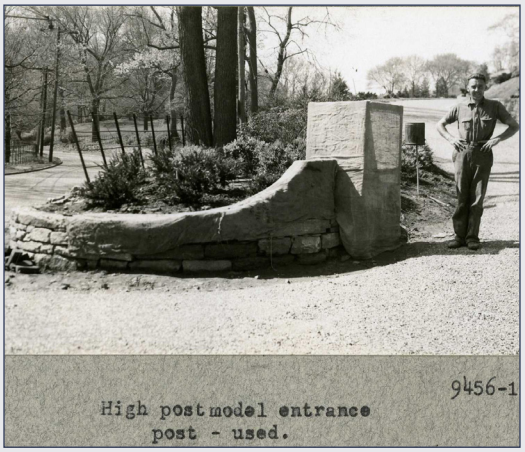
A stately stone wall. A pair of rusted iron gate posts. An avenue of towering sycamore trees. A set of weather-beaten limestone steps. If you live in or have traveled through Lower Merion, chances are you are familiar with (or have passed by) such "architectural objects of interest." What you might not know is that many of these relics were once part of historic gardens and landscapes designed by the Olmsted Brothers firm.

During the first half of the twentieth century, Olmsted Brothers was America's leading landscape design firm. The prominence of this practice owed at least partly to the pedigree of two of its early partners: Frederick Law Olmsted, Jr. and John Charles Olmsted. These individuals were the son and stepson, respectively, of Frederick Law Olmsted, Sr. The latter, who was born in 1822 and died in 1903, is recognized as the "father of American landscape design." Best known for planning (along with Calvert Vaux) Central Park, Olmsted, Sr. had a monumental influence on the course of landscape design and theory in the United States. His approach to planning was guided by the simple principle that in creating a picturesque and pleasing landscape, a site's existing characteristics, including its topography and natural features, were assets rather than impediments. Olmsted Brothers adopted (and adapted) these principles when they designed their own projects.

Across the nation, Olmsted Brothers and its associates were active between the late nineteenth century and 1980. According to the National Association of Olmsted Parks, the firm participated in the design of approximately 6000 projects. Although the volume of commissions the firm was involved is astounding, the breadth and variety of the company's work is also impressive. Olmsted Brothers projects are represented not just by well-known city and county parks, but by cemeteries, greenways, college campuses, arboretums, civic planning projects, and hundreds of subdivisions and neighborhoods. Many of these commissions endure.

Masons building the wall along Percival Roberts's Pennhurst estate.

Olmsted Brothers also completed scores of private residential commissions. During the first three quarters of the twentieth century, the firm created plans for more than 1000 such properties. Most of these designs were produced for country estates and expansive summer houses. Although New England clients particularly favored the Boston-based firm, wealthy Philadelphians (especially those who owned homes in the northern and western suburbs of the city) also kept the operation busy during these years. In Lower Merion, Olmsted Brothers is known to have executed plans for at least 20 properties. These properties include Percival Roberts's Pennhurst, a 500-plus acre estate in Penn Valley. They also include much more modest parcels including, William H. Wanamaker's three-acre estate in Merion.



J. Howard Pew estate stone walls under construction, 1938.

In Lower Merion, only a few commissions by Olmsted Brothers retain their original design and landscape features. Happily, however, evidence of the firm's work is still scattered all across the township. Vestiges of Olmsted landscapes are largely tucked away from view; they reside deep inside estates that have been developed or converted to institutional uses. Some remnants of the firms work, however, are hiding in plain sight. This is particularly true of many of the walls that the firm designed to enclose estate properties. That gray stone wall in Penn Valley that extends nearly a quarter of a mile down Conshohocken State Road? Olmsted Brothers designed this for Percival Robert's Pennhurst estate. That low brick wall on Highland Avenue across from the Merion train station? Olmsted Brothers created this for Edward Bok's house. That terraced lawn and retaining wall on Mill Creek Road? These features were part of an Olmsted Brothers plan for J. Walter Pew's Ardmore estate, "Knoll-Brook."

Fortunately, information about these and many other Olmsted Brothers-designed landscapes in Lower Merion survives in the form of archival plans, photos, and correspondence. This information is useful for assessing what remains of the firms local landscapes as well as for establishing strategies to preserve these remains.

Present day view of the Pew estate stone walls.

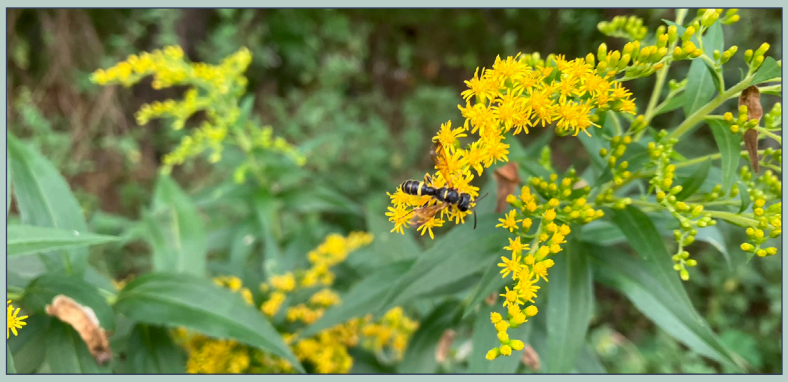
Tips for Expanding your Garden

FALL IS A GREAT TIME FOR PLANTING AND FOR PREPARING NEW GARDEN BEDS. TO CONVERT AN AREA COVERED IN LAWN GRASS OR INVASIVE PLANTS TO A GARDEN FOLLOW THESE STEPS

Scan here to explore our upcoming events, including Historic Preservation lectures.

Tips for Creating an Easy Pollinator-Friendly Landscape

With so many suburban yards designed as lawns dotted with a few ornamental bushes, the process of converting to native landscapes may seem daunting. Fortunately, there are a range native plants that can help speed up the process. We are going to highlight two kinds of herbaceous, flowering plants that are low maintenance and easy to find at nurseries: goldenrods and asters.



Canada Goldenrod.

New England Aster.

Goldenrods (plants in the *Solidago* genus) serve as "host" plants to 126 species of butterflies and moths, according to the National Wildlife Foundation Plant Finder. This means the larvae of those species can eat goldenrod leaves. To put the figure into context, goldenrods collectively host 49 more species of butterflies and moths than the next closest herbaceous plant genus native to our area. Goldenrods also attract numerous pollinators in their adult forms when in bloom during the late summer and early fall.

Zigzag Goldenrod.

A skipper visiting an aster bloom.

Asters (plants in the *Symphyotrichum* genus) are well known for their blooms among people and pollinators. Also blooming in summer and fall, asters provide late season nectar for pollinators that are preparing for winter. With warm temperatures lasting longer into the fall and potentially disrupting the life cycles of overwintering pollinators, these end-of-season aster blooms may become increasingly important.

Different species of goldenrods and asters are appropriate for different soil moisture and light levels, so you can almost certainly find some for your garden.

As your garden fills in, observe plants in bloom to see which attract the most pollinators. If the most beneficial plants start to get crowded out, you can selectively pull or trim neighboring plants to swing the competitive advantage. Any plants you pull can be transplanted to create new garden beds, fill in existing beds, or shared with family and friends looking to expand their gardens.

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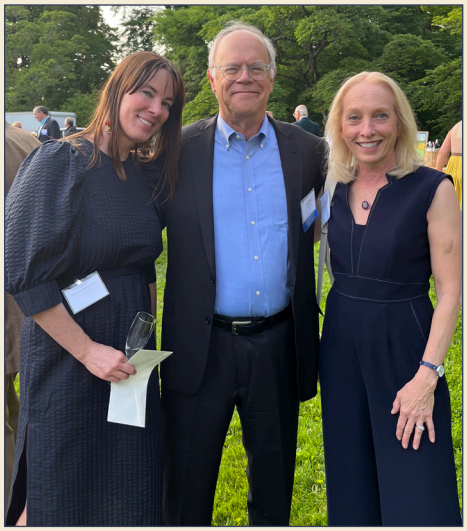

Conservancy Director Maurine McGeehan and Board Chair Mark Taylor are joined by Congresswoman Mary Gay Scanlon.

Gala Committee Chair and Conservancy Board Vice Chair Deb Callahan poses with her husband Tim Callahan and former Conservancy Board Chair Todd Bressi and Bettina Hess.

Thank you to all those who joined us at our 2022 Gala and to those who donated in support. The Gala is the single largest fundraiser for the Conservancy and helps our mission thrive throughout the year. Longstanding and new sponsors also made this lovely event possible. Please visit our website to see more pictures of the Gala, which was held at our new office location, the Barnes Arboretum at St. Joseph's University.

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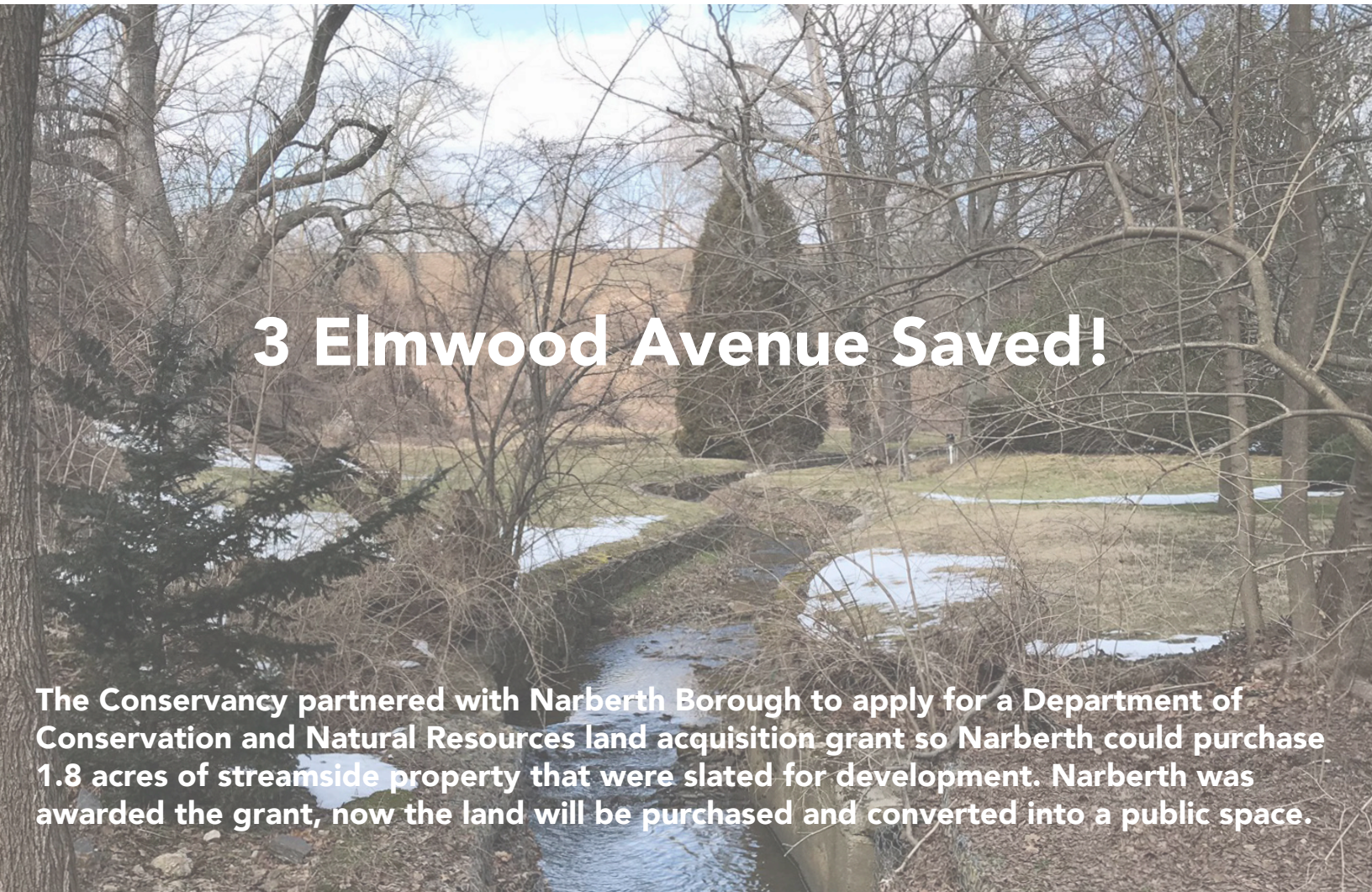

3 Elmwood Avenue Saved!

The Conservancy partnered with Narberth Borough to apply for a Department of Conservation and Natural Resources land acquisition grant so Narberth could purchase 1.8 acres of streamside property that were slated for development. Narberth was awarded the grant, now the land will be purchased and converted into a public space.