



THE

Valley

Spring 2021

DARBY CREEK VALLEY ASSOCIATION

The Delaware County Regional Water Authority (DELCORA) operates an incinerator at its sewage treatment facility in the City of Chester, for processing dry sewage waste from the treatment of Delaware County wastewater. The incinerator also processes industrial, medical and residual wastes from the region. DELCORA is seeking to renew its Clean Water Act permit for discharging pollution to the Delaware River. DCVA was informed by the Clean Air Council of serious concerns about the plant's ongoing pollution violations and the risks they may pose to Chester residents and to the environment. We have submitted the following request to the PA Department of Environmental Protection to promptly address the violations while undertaking further steps before renewing the permit.

To: Pennsylvania Department of Environmental Protection (DEP)
Re: PA0027103, Sewage, SIC Code 4952

March 1, 2021

The Darby Creek Valley Association opposes the renewal of the National Pollutant Discharge Elimination System (NPDES) permit for the DELCORA incinerator at this time. DELCORA is in repeated violation of limits on its discharges of fecal coliforms to the Delaware River, posing recreational contact risks to users of the river and potential exposure risks to nearby residents during flood events. The incinerator, which processes industrial, medical and residual waste in addition to sewage sludge, regularly discharges significant amounts of cyanide, and is also in violation of emission limits on hydrochloric acid.

This facility poses particular and ongoing risks to the surrounding community of Chester, a community that DEP recognizes as an "Environmental Justice area," and which is subjected to highly disproportional levels of pollution from multiple sources. We believe it is incumbent on DEP to delay consideration of the permit until a public hearing can be safely held and the views of those most directly impacted and placed at greatest risk can be taken into account.

In addition, the required information on recent flooding and combined sewer overflows submitted as part of the renewal application in October, 2017 is now considerably out of date. DEP should require re-submission of the application with up-to-date discharge measurements and predictions on climate change-impacted conditions.

In the interim, DEP should address the ongoing pollution violations.
We associate our organization further with the comments submitted by the Clean Air Council.

Sincerely yours,
Jaclyn Rhoads
President, Darby Creek Valley Association



Darby Creek Valley Association Receives New Resources from Philippe Cousteau's EarthEcho International to Protect Community Water!

EarthEcho International is the environmental education and youth leadership organization founded by explorer and environmental advocate Philippe Cousteau Jr. EarthEcho is helping to support the efforts of the Darby Creek Valley Association's Young Naturalist program to empower the next generation of water scientists and stewards with a donation of water quality test kits through the EarthEcho Water Challenge. These test kits will enable young people working with DCVA to sample the waters of the Darby Creek watershed for a core set of water quality parameters including temperature, pH (acidity), turbidity (clarity) and dissolved oxygen (DO).



The EarthEcho Water Challenge is an international education and outreach program that builds public awareness and involvement in protecting water resources around the world by engaging citizens in conducting basic monitoring of their local water bodies and equips them with the tools to take action to protect their water resources.

Program participants will share their water quality data through the EarthEcho Water Challenge global database, contributing to a network of water quality data collected by 1.6 million citizens from 146 countries. They will ultimately utilize this data to help inform actions to protect local water resources.

DCVA was selected to receive this donation in August 2020 among dozens of applications received from around the world and is looking to launch an ongoing youth monitoring program beginning in 2021. Be sure to check the Young Naturalist page at www.dcva.org for updates.

Contact: Aurora Dizel, auroradcva@gmail.com

Stream-Watch is Coming Soon!

by Alan Samel

The annual DCVA Stream Watch will be April 3rd. It's hard to believe that we have been doing this for over 18 years! It's also hard to believe that it has been two years since the last Stream Watch event. Covid-19 has affected everyone and everything we do. And this includes the Stream Watch program. Last year was the first year we missed since...ever! But this year we're a go!

The Stream Watch program is one of thousands of stream water quality assessments done throughout the world by collecting and identifying the invertebrate animals in a creek. These organisms have been categorized as tolerant of stream impairment, intolerant, or facultative (able to survive a variety of conditions) and thus the aquatic community present gives an assessment of water quality. The Darby Creek Valley Association Stream Watch and the number of years it has been active is a tribute to the legions of volunteers that have helped in the past and continue to help. If you have never participated in the Stream Watch, there's no better time than now. Like the Vernal Equinox, the Stream Watch occurs once a year. And now is the time for you to get involved. The Stream Watch is one way for us to give back to our communities in our continuing and non-stop effort to enhance the Darby Creek Watershed.

Over the years we have experienced glorious and, um, less than glorious days. Last year we had a beautiful spring day! The sun was shining, the birds were singing, and we were right where we wanted to be: in the streams! This year, we're hoping for



another incredibly beautiful day...hope springs eternal. It's always easier to get into the stream on a beautiful day; but this is a rain or shine event and the show must go on. We plan to start at 9:00 AM and hope to finish around 3:00 PM. Some volunteers come to all sites and others help out at some sites. Anyone with an interest can come when they can.

This is a great opportunity for you to get in the creek, learn to work with the equipment, and see what is living in Darby Creek. We take samples from five locations on Darby Creek: Bartram Park in Darby, Darby Creek Road in Havertown (downstream from the Haverford Reserve), Skunk Hollow in Radnor, Brandywine Preserve at Waterloo Mills in Easttown, and the Swedish Cabin in Upper Darby. What a great way to meet others and learn more about Darby Creek!!

The insects and other invertebrate animals ("bugs") that we collect provide a snapshot of the health of Darby Creek. This is the ninth year of intense sample collections and identifications. From this long-term sampling, a trend of the stream health at each site has been determined. Each year we compare our findings from the water quality determinations from the previous years. It's a way of getting the big picture from a lot of very small bugs! But getting into the stream and collecting the bugs is only part of the Stream Watch program.



2020 Cleanups at Cobbs Creek Park

by Richard Guffanti

With trail use reaching record highs this year, it is as important as ever for us to be responsible stewards of those trails and of the parks and natural areas that border them.

In 2017 and 2018, Rich Guffanti and Andrew Wheeler, who live in West Philadelphia, took it upon themselves to do weekly Saturday cleanups of the paved recreational path along a 1 mile stretch of Cobbs Creek Pkwy (Woodland to Spruce).



The 2021 goal is to recruit Cobbs Creek Ambassadors who will adopt a three block section for their own cleanups. This year, Temwa Wright (TemwaWright@gmail.com) volunteered to be the first Cobbs Creek Ambassador, adopting Catherine to Christian Streets. Her first day she worked alone, but as people came up and asked if they could help she was able to recruit 27 volunteers (six are regulars). Then, with a few tools from Rich, she instituted the Wednesday "Power Hour Cleanup", from 8 to 9 a.m., at the Catherine St tennis courts. She uses a group text to stay in touch.

In 2020 they extended the range from 1 mi to 4 mi (Woodland/Island Ave to Spruce St) and added the unpaved creek trails, but reduced the frequency from weekly to twice a month. They, with the help of many volunteers, get to each section of the park about once every 10 months. This schedule leaves the section messy for most of the year.



In 2020 they did 66 Cleanups (30 Weekday & 36 Saturday). Averaged 3 volunteers per cleanup on Saturdays and 6 on Wednesdays. They collected 195 bags of trash, 32 Tires, and 594 lbs. of recycling.



If interested in becoming a Cobbs Creek Ambassador, contact Rich at RichGuffanti@yahoo.com or text Andrew at 267-257-1910

The Dumpster

by Susan Miller

When Tropical Storm Isaias swept through on August 4th, 2020 our region was struck by an incredible amount of flooding and storm damage. Of the many objects carried away by forceful stormwater was a large, green dumpster that made its way into Darby Creek, first reported resting under the trestle at Hoffman Park. Once the Darby Creek Valley Association (DCVA) was approached about what could be done, I was determined to help.

In the beginning of the year Susan contacted a DCVA volunteer to scout out where the dumpster was located, and on a snowy morning the volunteer headed out on a search beginning at Hoffman Park, making his way down stream to Pennock Woods where he located the dumpster that had positioned itself close to the streambank.



The next question was how to remove it from the stream and prevent it from washing further downstream during subsequent storm events. Susan Miller reached out to long-time dedicated community volunteer Nicholas Hoyt, asking if he could assemble a group of volunteers to help. On a crisp 37 degree Saturday morning in March, Susan Miller, Nicholas Hoyt, Rich Blye, Brian Justin, Joey Mazza, Roy Binion, David Bennett, John Haberle, Rachel Winslow, Jack Pollock and Rocky assembled and headed into the waters determined to remove the giant piece of troublesome trash. With determination, will power, and brute strength they were able to get the dumpster across the stream and up a steep bank.

With a cheer and a sigh of accomplishment the dumpster was out of the creek. I thanked the group, quoting Margaret Mead, "Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has."

Everyone knows what a monarch butterfly looks like, but did you know that Pennsylvania has 146 species of butterflies? They range from small butterflies with a wingspan of 0.5 inches to the tiger swallowtail which has a wingspan of 5-6 inches. While there are numerous types of butterflies in Pennsylvania, they all have one thing in common: they need specific plants to thrive. Some are very connected to just a few species of plants and without them they will go extinct. There is an evolutionary arms-race between plants and herbivores- plants evolve toxic compounds, and herbivores evolve the ability to detoxify compounds. However, it takes a great deal of metabolic energy to participate in this arms race- so insects tend to be able to detoxify just a few toxic compounds in a few species of plants. Among the most famous of these evolutionary relationships is the ability of the monarch butterfly (*Danaus plexippus*) caterpillar to feed on milkweed (genus *Asclepias*) which contains cardiac glycosides or other toxins. Birds that eat monarchs, particularly an adult monarch that ate certain milkweeds as a caterpillar, will suffer an upset stomach and often remember not to eat



This evolutionary relationship is the basis of the well-known connection between monarch butterflies and milkweed including butterfly weed. (not butterfly bush- which is non-native). Female monarch butterflies lay their eggs on one of the several species of milkweeds that are native to North America. The caterpillars feed exclusively on milkweed although they may pupate on other plants as they seek a safe place to pupate. Over the past 20 years there has been an estimated 80% decline in monarch populations. While some decline may be attributed to climate change, the largest contributors to the decline are from lost and fragmented habitat, pesticides, and herbicides. Milkweed is an essential feature of quality monarch habitat. While there are 140 species of milkweed in North America, there are only 11 species native to Pennsylvania. Native species can adapt to the changing weather conditions and will thrive better than nonnative species. Planting milkweeds is a great way to help the monarch. There are many places to purchase these native species.

Pennsylvania Native Milkweeds:

Butterfly Weed, *Asclepias tuberosa*
Clasping milkweed, *Asclepias amplexicaulis*
Common milkweed, *Asclepias syriaca*
Fourleaf milkweed, *Asclepias quadrifolia*
Green comet milkweed, *Asclepias viridiflora*
Poke milkweed, *Asclepias exaltata*
Purple milkweed, *Asclepias purpurascens*
Red milkweed, *Asclepias rubra*
Redring milkweed, *Asclepias variegata*
Swamp milkweed, *Asclepias incarnata*
Whorled milkweed, *Asclepias verticillata*



The eastern tiger swallowtail (*Papilio glaucus*) is a native species to our area and is also very familiar to many people. Eastern tiger swallowtail caterpillars feed on the leaves of a variety of woody plants including wild cherry, tulip, birch, ash, cottonwood, and willow. Adults eat the nectar of flowers from a variety of plants including milkweed, phlox, lilac, ironweed, and wild cherry.



Zebra Swallowtail Bob Maul:
butterfliesandmoths.org/species/Eurytides-marcellus

One of the less common butterflies in our area is the zebra swallowtail (*Eurytides marcellus*). Southeastern Pennsylvania is the northernmost tip of their range. Zebra swallowtails are remarkably impressive looking butterflies, getting their name from the zebra-like black and white stripes on their wings. They have two blue spots and two-three red spots on the upper side of the wings near the tail end of the body. The wings end in two long points. The zebra swallowtail caterpillar is dependent on the pawpaw tree, *Asimina triloba* or other types of pawpaw for food. In addition to being essential for the zebra swallowtail, the pawpaw produces an edible fruit. The fruit is described as tasting like a cross between mango and banana. There has been an interest in growing pawpaws in our region in recent years. They are native plants that can be purchased online and at some local nurseries.



PawPaw: etsy.com/shop/SouthernTreedealer

There are numerous other species of butterfly that rely on specific species of native plants to survive. Information can be found on the internet, but the one thing to remember is just because they rely on a specific host plant, doesn't mean they don't need other native species to survive through all the seasons. For example, while the eggs may be laid on specific plants, the adults tend to feed on a variety of native flowers. When planting your garden or yard, it's important to plant food that pollinators can feed on throughout the early spring to late fall.

It is well known that the Darby Creek Valley is blessed by its natural, historic, and cultural treasures. From the first Swedish log cabins to the greenways of today, the "laughing little river that preaches sermons unawares" as writer Christopher Morley called it, has been witness to human interaction with our natural, physical and aesthetic environment. What is less well known are the ways that these factors influence each other, and us. Natural areas and older buildings can make us feel better and their loss can make us sick. Conversely, the appreciation, preservation and utilization can have a healing effect. This is, and has been, a factor in our past, our present, and our future.

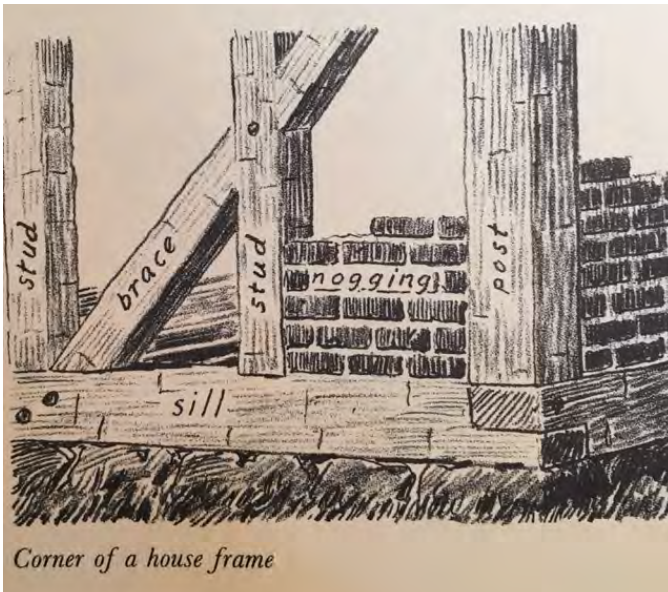
At the start of the 19th century, as the Industrial Revolution was ravaging the landscape, there were various counter-movements against the negative effects of a toxic environment and people began to work toward the appreciation, preservation, and utilization of nature in the content of the built environment. Landscaped parks, efforts to preserve urban enclaves of nature like Philadelphia's Fairmount Park, and the rural cemetery movement were advanced by people who noted what was destroyed. Among these people was architect Andrew Jackson Downing (1815-1852) who may have had an influence on the design of the circa 1852 home at 1000 Main Street in Darby Borough.

Andrew Jackson Downing was born in Newburgh, New York while the Industrial Revolution was changing the face of America. The son of a wheelwright turned nurseryman, Downing specialized in landscape architecture, designing the landscaping for the Smithsonian Institute in Washington DC and promoting domestic architecture as a different kind of structure that goes beyond mere utility to elevate itself and its surroundings "Domestic architecture." he says "is only perfect when it is composed so as to express the utmost beauty and truth in in the life of the individual." Downing believed a house should exist in harmony with its surroundings. He told a story about a house he saw "During a drive on Long Island last autumn, (when) we saw with pain and mortification, a suburban villa of a wealthy citizen, a narrow, unmistakable "six story brick, "which seemed, in its forlornness, and utter want of harmony with all about it, as if it has strayed out of town, in a fit of



insanity, and had lost the power of getting back again."

In linking the American house to the American landscape, Downing also became the first to articulate and elevate the American front porch as a space for living, recreation and refreshment. He stated "a porch strengthens or conveys expression of purpose, because, instead of leaving the entrance door bare, as in manufacturing and buildings of inferior description it serves both as a note of preparation, and an effectual shelter and protection to the entrance." Articulating the three pillars of architecture; strength, usefulness and delight, Downing left his mark on the American landscape. On an unrelated note, Downing's life itself is fascinating, as is his death. He died July 28, 1852 at the age of 36 in a fire on the steamboat Henry Clay that was having a race with the steamboat Armenia on the Hudson River, NY. According to the preface to the Dover addition of Downing's book, "Downing was last seen on the upper deck, throwing deck chairs down to survivors in the water to help keep them afloat."



In the present day, place and architecture is believed to have played a role in the conflict in Syria. Syrian Architect Marwa al-Sabouni in a recent piece in the New York Times authored by Stephen Heyman (Sept. 14, 2016) suggests the destruction of the traditional, tree shaded city, and its replacement with modern apartment blocks, may have contributed to the Syrian Civil War. In a TED talk, Architect Sabouni relates how she spent two years trapped in her apartment as the historic heart of her city of Homs was destroyed. She talks about changes that came to Homs and other Syrian cities under the banner of "progress," including "colonial-era geometric street plans that tore up the traditional architecture, and massive apartment blocks that isolated their occupants from the city center.....there is a sure correspondence between the architecture of a place and the character of the community that has settled there.....architecture plays a key role in whether a community crumbles or comes

Additional Resources:

About 1000 Main Street
<http://www.darbyhistory.com/1000Main.html>

About Andrew Jackson Downing and the popularity of the front porch http://www.xroads.virginia.edu/~CLASS/am483_97/projects/cook/popul.htm

Andrew Jackson Downing's "Architecture of Country Houses"
<https://ia800207.us.archive.org/19/items/architecturecou00downgoog/architecturecou00downgoog.pdf>

About architecture and the war in Syria
http://www.ted.com/talks/marwa_al_sabouni_how_syria_s_architecture_laid_the_foundation_for_brutal_war

Preserving Intangible History with Susan West Montgomery (Transcript) file:///home/chronos/ua2b525ff5fbda36ef958f668ff2118aaacdd0482/MyFiles/Downloads/Valley%20House/Preservation_Profiles_010_Susan_West_Montgomery_Transcript.pdf

together." The article notes, "There was a human scale to these cities, a generosity to them, with water fountains, benches and the cool shade of trees that gave joy throughout the year with their fragrances and fruits." Although Sabouni acknowledges the Syrian conflict has many causes, she is quoted as saying, "but in a very real way it accelerated and perpetuated the conflict.....this place promoted anger, it promoted revenge."

So what of the future? In a recent talk, Susan West Montgomery, former Vice-President of the National Trust for Historic Preservation, lamented the wanton and wasteful destruction of places which contained so much history and beauty and life lived. She spoke of the damage from just letting these places deteriorate and spoke of the damage from red lining. She asks "Could you have a green lining in which we say, okay, now we're going to actually direct all of our resources and energy and creativity and investments into key areas of our cities. The complete opposite of what we did with red lining..... What makes a place healthy for human beings and how do you address systemic trauma and how does place enter into that? We sort of know well walkable communities are good for you physically, but there's research that's showing that it's possible that old places are good for you neurologically because humans have an affinity for old places. We like the idea that time passes and that a building ages. A brand spanking new building is a little disconcerting. Every human being recognizes the passage of time and we are human beings who age ourselves, right? So there's some neurological research that's happening about the value of old places"

That said, what can we do? Montgomery suggests: "Every time we reach out, do not start with the building, do not start with the object or the resource. Start with the need... If you shift the narrative and start with the people and have everything else come after...It's not about saving the building. It's about serving the community and when we marry those two, it can be really powerful."

People need calming. Healing places and part of our task on this earth may be to recognize, preserve, protect, and promote those places.

Zero Waste: A Concept from the Past has New Meaning in our World Today. by Carol Armstrong

Zero Waste is a concept from the past that has new meaning in our world today. This article will lead to the initial steps of zero waste, but some background is needed to understand its role in our world. It is the most achievable approach we can take at this time to address the problems of plastics and waste. Can you see what is in common among: Plastic waste, climate change, ocean acidification, and ozone depletion? Scientists state that they are threats to our planet that are capable of major destabilization of normal earthy functions (Galloway & Lewis. 2016). The science of the effects of plastic waste is still in its early stage. Until we accumulate enough researched tested evidence that plastics (including its emissions of greenhouse gases, adsorption of dangerous contaminants, and leaching of the chemicals used with them) are definitely affecting human development and causing diseases and disorders, we will not be able to stop Pennsylvania's subsidizing of fossil fuel extraction for production of plastics-The true costs of plastics is not fully known.

A practical and feasible approach in the meantime is that of Zero Waste, which is a philosophy and a process. It is a long road of evolution, not a stopping place. Its essential tenets are that all materials that are intended to be discarded are designed so that they become resources for other uses. The design and management of products and processes must reduce volume and avoid toxicity. Zero Waste is the conservation and recovery of all resources. Above all, there should be no burning of any materials, which inevitably releases gases, particulates, and toxins, and takes energy to burn at a high enough temperature.

A community that commits to Zero Waste aims to eliminate all discharges to land, water or air that threaten the earth, human, animal, or plant life. The journey and evolution is to think how to support policies and systems that dispose of organics so that they can be composted for growing, reuse materials, and effectively recycle materials. Such a community tells government and businesses that it wants consumer products that don't contain toxic residuals. The community moves away from making purchases of products and services that are eventually discarded, and makes the decision that no discards will be incinerated.

It holds producers accountable for the waste in their products. It encourages responsible consumption limits. It respects the voices of everyone, especially workers and communities who are on the front line of our waste crisis.

Plastics might seem to disappear invisibly when we put them in the trash or recycle bin, but it is people who are on the front line in countries around the world, who expose themselves to the gases and toxins leaching out of the trash. They do this at low wages, they are not praised as heroes, and their assumption of the costs of handling these materials is done for the benefit of the society.

The entire Zero Waste program benefits the community! That is the motivation for Zero Waste, along with preventing so much ocean pollution with plastics that there will literally be more plastic than fish in the sea by 2050. Even now, there are places in the world where fishermen's catches are 40% trash and 60% fish. In all places around the world that are practicing Zero Waste, all of the programs achieved something the community needed, for example:

Reduced the unhealthy waste in their streets and turned it into major savings in waste management costs.

Collected trash useful to local artisans for creating craft products, whose profits were returned to the trash collectors.

Promoted those craft skills for future generations.

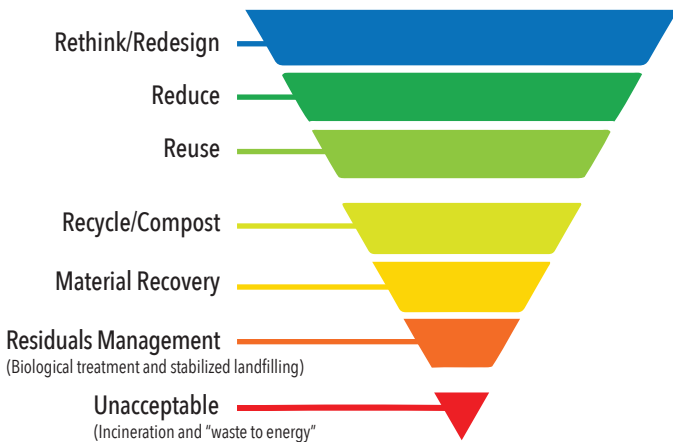
Engaged everyone in the community to become responsible for the health and cleanliness of all.

Reduced health risks to the residents from incineration or chemical factory emissions in their town.

Preserved the aesthetics of wilderness for tourists, and residents.

Regained the recreational value of natural places.

THE ZERO WASTE HIERARCHY 7.0



© Zero Waste International Alliance zwia.org/zwia

Countries, states, big cities, small communities, and businesses are electing to develop Zero Waste programs, which also make them more resilient to challenges by reducing the costs of fossil fuel extraction, plastics production, deposition of waste, and health costs from exposure to extraction/production/incineration emissions. Did you know that the average landfill costs of \$74.75/ton (in 2017) and 15,368,631 tons going to landfills in 2018 as reported by the PA Department of Environmental Protection, resulted in costs to Pennsylvanians of over \$323 million dollars per year (tipping fee, disposal fees, recycling fee, and Environmental Steward fee)? Landfills are 26% plastic by weight according to the U.S. Environmental Protection Agency (EPA). Plastic waste is costing us a great deal of money!

Despite the accumulating evidence of release of hazardous chemicals and greenhouse gases into the atmosphere when plastic waste is incinerated, PA passed a law in 2020 (HB 1808) that redefined the burning of plastics as recycling, because the gases from some of the plastics could be sold. Burning plastics damages the combustion heater, and the products of plastic incineration are damaging to humans and the environment. Incinerating plastics and their associated chemicals creates new very dangerous gases and compounds that travel through the atmosphere and land on terrestrial surfaces and water. Analyses of the health care costs caused by the deposition of plastics waste have not yet emerged, though the accelerated increase in diseases demands that we consider the role of chemicals in our environment in causing disease.

The first steps to develop a Zero Waste plan are to define your community and how it will benefit. Then agree on a goal of how much will go to dumps and the amount that will be recycled, landfills, and incinerators. Every experienced city knows that the next step must be to collect data on your trash: how much, what kind, where is it coming from? This data is reviewed yearly. Set goals for diversion from landfill and combustion: 90% is reachable. Communicate with providers of products and services about your preferences for less toxic designs and reduced packaging, and negotiate with suppliers about possible alternate packaging. As able, consider when additional products and supplies can be diverted from landfills and incinerators. Make composting and recycling more convenient but mandatory. Consider possible additional costs for recycling that might be offset by reduced trash from other practices. It will be necessary to work with individuals, local government, and businesses - everyone has a role.

Resources for learning how to develop a zero waste program and examples:

EPA Managing and Transforming Waste Stream Tools - www.epa.gov/transforming-waste-tool/managing-and-transforming-waste-streams-tool

CalRecycle's Waste Characterization - www2.calrecycle.ca.gov/WasteCharacterization/General

Eco-Cycle Solutions - Community Zero Waste Roadmap - www.ecocyclesolutionshub.org/how-to-get-there/community-zero-waste-roadmap/

Roadmap for Zero Waste - City of Pittsburgh - apps.pittsburghpa.gov/redtail/images/543_Pittsburgh-Road-Map-to-Zero-Waste-Final.pdf

Philadelphia Zero Waste program - cleanphl.org/programs/zerowaste/

Literature Cited: Galloway, T.S. and Lewis, C.N., 2016. Marine microplastics spell big problems for future generations. Proceedings of the National Academy of Sciences, 113(9), pp.2331-2333.

The phrase "Zero Waste" might feel intimidating or overwhelming at a first glance. What does it really mean? We are constantly told that modern western society produces exorbitant amounts of trash - about 4.9 pounds per person per day (EPA, 2018). If this is the case, how could anyone possibly argue that the solution to our trash problems is to cut out waste completely? But please, don't let the daunting nature of this task get in the way of allowing you to see its feasibility. The Zero Waste International Alliance (<http://zwia.org/policies/>) defines zero waste as 90% or more diversion of waste from incineration and landfill. Individuals and communities around you are already on their way towards zero waste lifestyles and you can be involved too!

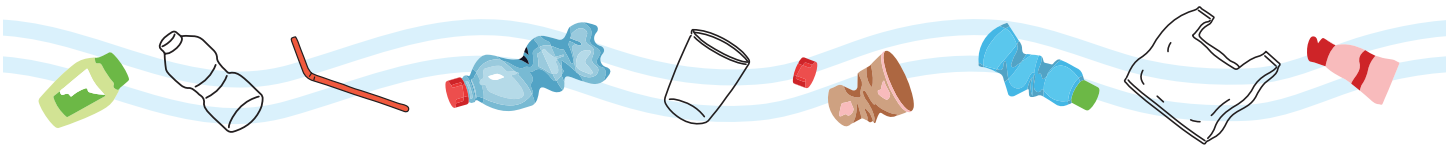
One of the most prominent organizations in our watershed, committed to education and action on Zero Waste, is the Chester Residents Concerned for Quality of Living (CRCQL). This organization, composed of dedicated and concerned residents, has created Zero Waste municipal teams to educate residents and advocate with municipal leaders to adopt a Zero Waste resolution, which demonstrates "commitment to improve the way we produce and dispose of waste." This group has a multitude of projects geared towards developing a just and green society right here in our own Chester-DelCo area.



To learn more about their work, check out their website here: chesterresidents.org/

Their Zero Waste resolution can be found here: chesterresidents.org/wp-content/uploads/2020/12/Zero-Waste-Resolution_example.pdf

If you are interested in getting involved in their work, you can join your local Zero Waste work group through this link: docs.google.com/forms/d/e/1FAIpQLSelsplQMXIIUPRRIktnrmLJwNOtrWmTmilHc9wS1ALZS3N1sA/viewform



You can also find 50 great tips on how to work towards a Zero-Waste lifestyle here (sustainablejungle.com/zero-waste/zero-waste-tips/) if you are interested in incorporating these practices into your daily habits. Along with that, this document provides some facts and further background on personal waste management: [Zero Waste Hierarchy Fact Sheet](#)

We encourage our readers to use these resources and get involved in any of this work. Making changes can be a long and slow process, and getting to zero waste might sound difficult, but it simply takes a change in mindset and a greater awareness of our choices. If we all make small changes and have patience and persistence, we will get there.

Memorial Day Weekend to July 4th: See the Watershed - and the Future!

The Philly Hiking Meetup Group hosts an annual expert guided hiking tour series each spring. Due to the pandemic the events did not occur in 2020. For 2021, however, a great schedule is planned! The usual tour of Cobbs Creek and Radnor will be converted to a series of bike rides later in the spring. Bicyclists will have the opportunity to view the John Heinz National Wildlife Refuge, the proposed East Coast Greenway city park expansion to the Cobbs Creek Parkway and well beyond. The bicyclists, just like participants in past hikes, will view the Darby Creek Valley's historic and environmental attributes. This will include a discussion of why the Underground Railroad worked so well along the Cobbs Creek. The 6 RIDE Series version offered this year will be manageable by adults with nearly all ride abilities.

The tour will be accompanied with a narration of how a "Complete the Circuit" multiuser trail can easily bypass seemingly impassable obstacles. In these outdoor, "moving events" the tour guides will explain how the partially-done-trail CAN be connected off-road all the way to the existing, popular Radnor Trail largely without SEPTA's 3rd (electrified, exposed) rail endangered easements. (SEPTA has rightly refused to allow easements along their busy #100 Hi-Speed RR like Line).

The trail system was originally conceived to reach much bigger regional and national destinations. This vision will be explained on the tours. For example, the plan includes trail connections just over the top of the highlands in the upper Darby Creek watershed and down South Mountain to the Great/Chester Valley Trail and into King of Prussia and Valley Forge National Park. Once accomplished, this connection would allow further connection to the east-west regional trail spine of the Schuylkill Valley Trail! This is the only workable proposal and is via sidewalk trail easements

and public lands, traversing perhaps the 2nd biggest pedestrian and bike barrier in the entire region after the Delaware River itself.

This years series, in its easy 6 Ride segments is designed as usual to be totally transit friendly (really go green!). All rides are one way and designed around access to public transportation. You can park your car at a transit station and return by public transit to your starting point to pick up your car or access major transit connections. The tour guides are excited to explain the progress, obstacles and evolution of a dynamic watershed wide trail system plugged into the regional bike network to create a continuous trail system for all to enjoy.

To keep everyone safe, we will follow full Covid safety protocols amidst increasing mass vaccinations and fresh air. Cloth masks will be required and temperatures will be taken. Reasonable safety measures will be followed as best can be with these relaxed rides. There will be bathroom opportunities and usually meal opportunities. Please see the Philly Hiking Meetup Groups website closer to June for more details.

Hikes will resume in the Fall of 2021. In the summer edition of The Valley and on websites there will be a further announcement of the Fall Hike Series guided walks of the Darby Creek from Valley Forge via Berwyn at the top of the Watershed down through Upper Darby and other communities in the lower watershed. These hikes will feature the historic and cultural sites of the Darby Creek Valley from the headwaters to the Heinz Refuge, the Lazaretto Emigration Station historic site and Ft Mifflin. We will discuss the development of the area including the fact that both the Lazaretto Station locality and Ft. Mifflin were originally both islands connected through wetlands to the Darby Watershed. One hike will include an opportunity to participate in Ft. Mifflin's annual activities. Transit start/end points are picked for their extra bike carrying capacity. Participants are cautioned to arrive early as all SEPTA lines carry bikes with some limits. You can call SEPTA at 267-290-2968 for more details.

**Please join us for the first bike tour on Memorial Day Weekend!
Dates of the six rides are each Sunday at 11 AM between May 30 & July 4.
The details for the six tours can be found at www.dcv.org.**



Part 1: to mid-late 19th Century

In April 2017, DCVA acquired an approximately 6 acre wooded property at the juncture of Norwood, Glenolden & Folcroft boroughs. The property lies within the boundaries of Folcroft borough and is bordered by Delmar Drive to the north, the Muckinapates Creek to the west and south, and Folcroft residences to the east. We found the area to be overgrown with invasive species and it is the intention of DCVA to restore this area by removing these invasives, clearing the area of trash and debris and re-establishing the native flora. This is the first of a two part look at the history of the property and the surrounding area.

We know that prior to Europeans settling in America, this region was home to American Indians, specifically the Lenni-Lenape tribes that inhabited the Delaware Valley and beyond. There were a few dozen clans of the indigenous Lenni-Lenape. The Muckinapates (or Muckinipattus) Creek name derives from a Lenape word meaning 'deep running water,' Two of the tribes within the Lenni-Lenape nation, the Otter and the Turtle, lived and hunted along the creek. They built a small village where the Muckinapates drains into Darby Creek (across the creek from the Morton Morton House in Norwood), the present day site of Montgomery Park in Folcroft.



The ruins of the Glen Olden Mill which burned in February, 1896. The ruins today would be in the middle of Delmar Dr as you enter Folcroft Boro from South Ave

The tribe at first traded and interacted with the European settlers but by 1750, conflict from overhunting to satisfy European tastes, dependence on introduced goods, diseases such as smallpox and the unfavorable treatment accorded indigenous tribes throughout the nation (forced migration westward to less than desirable lands) led to a loss of 90% of the Lenni-Lenape people.

The land was first deeded to Swedish settlers in the late 17th Century. The area was, at that time, known as Calcon Hook, and later became a part of Darby. By the early 18th Century it came into the possession of Morton Mortonson and remained in the family until it was bought by Thomas Shipley in 1755. Shipley proceeded to build a mill after purchase. This would be used as both a grist and a saw mill (the remnants of which can be seen around the Falls just north of Delmar Drive from the DCVA property). Shipley expanded the land holdings and operated the mill until his death in the 1790's.

Shipley's daughter, Anne, was married to John Jones and they sold the land to Caleb Phipps which led to an interesting chapter in this property's history. Elisha Phipps, Caleb's brother (his son in some accounts), took hold of the property in 1808 and was, by many accounts, not the most conventional of stewards, for instance he apparently he was a good fiddler and often held dances at the mill. The following is account of "The Tale of the Dusty Miller" is taken from John W. Jordan, ed., A History of Delaware County, Pennsylvania and its People, Vol. 1.



Section of Atlas of Delaware County, Pennsylvania, 1870 - created by Henry W. Hopkins

In 1797 the mill seat was sold by the sheriff as the property of Charles Davis to John Jones, who conveyed it the same day to Caleb Phipps. In 1799, Hiram Walton was operating the mill, and in 1808 Elisha Phipps, a brother of Caleb, was the lessee. Elisha Phipps was an erratic character on whom little reliance could be placed, impulse governing his movements and causing no little annoyance to those who were depending on him. He owned a little sloop, the 'Dusty Miller,' which he would load with flour at his mill and thus convey his product to a market. On one occasion (in 1810) he loaded with flour and left the little creek bound for New York. Nothing was heard of him for so long that his wife visited New York, but could get no clue of him, the firms with which he dealt not having seen him. She returned home, finally giving him up as lost. One evening at nearly dusk she saw the 'Dusty Miller' sailing up the Muckinipattus with the flood tide. As soon as moored, Phipps came to the house, entered, and as was his usual habit, threw his old hat on the floor, as though he had not been away for weeks and was mourned as dead. It seems that on leaving the capes of the Delaware he was struck with an idea that the West Indies was a

better flour market than New York, and changed his destination with the impulse of that moment. He made a luck trip, sold his flour at a large profit, then, loading with rum and molasses, sailed for New York, sold out, loaded again with grain, and finally arrived home in safety.

A few years later the land was conveyed to Ephraim Inskeep, who married Mary Olden in 1815. Over the next several decades the Grist Mill became popular with New Jersey Farmers who did not have streams powerful enough to provide the water power they needed. They would sail "one stickers" (one sail) boats from New Jersey across the Delaware River and up Darby Creek to the Muckinapates where, at high tide the boats could easily come up to a wharf at the Mill. William Ridgeway married into the family in the 1830's and eventually his family inherited the mill.

The Grist Mill was eventually converted to a bobbin factory in the 1870's. Both the Grist and Saw Mill burned to the ground in February, 1896.



Section of Plate 12 taken from the 1889 Atlas of Properties along the Philadelphia, Wilmington and Baltimore, Baltimore and Ohio and Philadelphia and West-Chester Rail Roads - created by J. L. Smith

Think about finding the common ground between upstream and downstream communities to protect the Darby Creek Watershed from degradation due to the impacts of urbanization and climate change. I would like to suggest that conversations be held between communities from different points in the watershed—north and south, east and west. We are all downstream from somebody, yet the very nature of a watershed means that all effects are amplified as lower order streams combine into our

highest order stream, the Darby Creek itself as it reaches the communities closest to the confluence of the Darby and the Delaware. In addition, just sharing success stories, such as the Hav-a-Rain Garden program in Havertown and other communities, and working on projects like this across municipal boundaries, could make the Darby Creek watershed a national example of success.

Watershed wide issues and solutions municipalities could tackle together might include:

- Impervious surfaces
- Urban heat islands
- Flooding and other stormwater management issues
- Loss of beneficial pollinators
- Erosion
- Urban tree diversity
- Invasive plant and animal species
- Loss of wildlife habitats
- Degradation of the recreational fishery
- Loss of open space for recreation and healthful living



We know the solutions to these problems—for example, planting native trees and other native vegetation particularly along streams to recreate riparian buffers addresses several of the issues above including erosion, loss of beneficial pollinators, and degradation of the recreational fishery. I should acknowledge here that there are many great activities being carried out in our watershed by DCVA, but also by others such as Save Marple Greenspace, the Lower Merion Conservancy, Villanova University Urban Stormwater Partnership, Radnor Conservancy, and Eastwick Friends and Neighbors Coalition.

Imagine what we could do if municipalities worked together, or even if citizens from different townships and boroughs worked together more. DCVA already has two great watershed wide programs, the Watershed Wide Cleanup and the Stream Watch Water Quality Monitoring Program; we could develop other such programs. If we all joined forces more deliberately we could do so much to improve our watershed. To this end, the DCVA's role as the catalyst for watershed advocacy and protection is key to maintain the awareness of the residents of the watershed. Since

1984, the DCVA has attempted to link residents within the 31 municipalities and 4 counties for watershed advocacy and protection. It is time to bring Darby Creek Watershed activities into focus and work as a unified team to protect the watershed for future generations.

The Darby Creek Valley Association is the vehicle that can and is bringing the 31 municipalities and 4 counties together to help protect the quality of life within the Darby and Cobbs Creek watersheds for the current and future generations. Some things that individuals can do to help make the upstream and downstream connection include planting shade trees, cleaning up litter in and around streams, getting involved in youth activities relating to ecology projects, writing letters to the editors of local news media relating to the local environment, participating in local government meetings related to noise and air pollution mitigation, illegal dumping, and water quality. Another area of involvement could be the organization of town watches for environmental safety and health. Thinking upstream-downstream is an innovative way of thinking and DCVA can lead the way.

Penn State Extension Master Gardeners now has a Pollinator Friendly Certificate program to certify your property as Pollinator Friendly. Planting a pollinator garden is one of the best ways to help the environment. Not only do these gardens provide food for pollinator insects, but those insects provide food for birds to feed their young. Mother birds do not feed seeds to their young; they feed them bugs and caterpillars for the protein they need to survive. As a gardener, once you have planned, loved, nourished, and spent numerous hours tending to your pollinator garden, your hard work can be awarded with an official Pollinator Friendly certificate.

Certifying your property as Pollinator Friendly will help support a healthy ecosystem for our community and our future and will help educate others about the importance of pollinator friendly properties.

HERE ARE 4 EASY STEPS:

Provide Food (nectar and pollen)

Provide a Water Source

Provide Nesting Sites

Safeguard Pollinators by Avoiding Invasive Plants and Pesticides



To find out more or to apply for a certificate visit:
ento.psu.edu/research/centers/pollinators/public-outreach/cert



The Upper Darby Environmental Advisory Council (EAC) and Upper Darby Trails, a local organization, is hoping to coordinate three trail walks on Trails Day on Saturday, April 24, 2021. In celebration-everything is in "threes". There would be three separate walks, at three distinctly different times, at three different locations, and for three different purposes. The idea is to provide a wide variety of experiences here:

- 1) An old abandoned railroad spur line has been cut through dense vegetation between Garrett and Marshall Rds. for a morning hike from 9-10:30 AM
- 2) An historical tour of 3 sites related to the Underground Railroad that would be a handicapped accessible 2 mile walk through Drexel Hill from 1-2:30 PM, and
- 3) An exploratory walk through parts of Naylor's Run Park including its abandoned rail spur (and potential rail trail), the site of a possible tree nursery, and a possible cross park trail to the hospital and high school from 6-7:15 PM. Each of the walks would be accompanied by our EAC's attention to a specific environmental issue. Further information will be on the Upper Darby Trails Facebook page soon.



Toni McIntosh is the 2020 DCVA Award Winner

Toni McIntosh is the 2020 recipient of the Darby Creek Valley Association Ribbon of Green Award. Toni is a long time member of the Darby Creek Valley Association (DCVA). She was a beloved teacher at the Walden School in Media, PA for many years. Toni has contributed to DCVA activities throughout her time as a member of DCVA and a member of the DCVA Board of Directors. She is best known for providing excellent breakfasts at each and every monthly meeting for many years. She also has provided breakfast and lunch for the substantial crowd that attends the DCVA annual meeting for many years with the help of her husband Jack. Toni's contribution has added considerably to the comradery of the gatherings. Thank you, Toni, and Congratulations!

DCVA was pleased to receive this certificate in recognition of the Watershed Wide Cleanup organized by DCVA every year for over 35 years.



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	\$1000 Guardian Sponsorship	
\$2500 Conservationist Sponsorship	\$5000 Preservationist Sponsorship	\$10,000 Super Hero Sponsor	

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

CALENDAR

DCVA Board Meeting - Third Saturday of each month at the Delaware County Peace Center

Young Naturalists Program - Third Saturday of each month at the Haverford Community Recreation and Environmental Center (CREC)

Fall and Spring Cleanups - See DCVA.org

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Quarterly Newsletter of the Darby Creek Valley Association

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