

**EASTTOWN TOWNSHIP ENVIRONMENTAL ADVISORY COUNCIL
REGULAR MONTHLY MEETING
MEETING MINUTES**

Thursday, September 22, 2022

The regular meeting was called to order at 7:00 pm by Chairperson Cara Rash. Environmental Advisory Councilmembers in attendance were Gary Ellis, Kate Goddard Doms, Cara Rash, and Radha Pyati. Councilmember Heather Hill was excused. Also attending were Supervisor Michael Wacey; Eugene Briggs, Township Manager; and Bill Hartman.

Consideration of Draft August 25, 2022 Regular Meeting Minutes.

The July minutes with three friendly amendments were approved with a motion, second, and 4-0 vote.

Review of 2023 Budget Request Items.

The EAC discussed various items with expenses that contribute to the overall 2023 budget request. These items included the seed saving library, the rain garden program, the Trex program, and workshops, excluding the tree program to be discussed also at this meeting. The rain garden program can be executed either with all-volunteer labor, or with the use of a landscape company to handle the heavy earthmoving and grading work. The EAC favored the use of a landscape company, which costs \$1,800 per garden on average. For two gardens (\$3,600), tools (\$400), plants and mulch (\$1,000), and legal fees to write documents (\$1,200), the rain garden program totaled \$6,200. With all those expenses per below, a budget of \$7,500 for these programs, excluding the tree program, was determined. Following the tree program discussion below and the \$15,519 allocated to the tree program, the total 2023 budget request was the following:

Topic Area:	Cost:
Seed Library:	
1000 Self Adhesive Seed Envelopes	\$27
All Purpose Labels (1.5" x 2.75") for 76 labels x 14 packages	\$21
Trex Program:	
Trex Can Liners (100 count) x 5	\$200
Trex Bench Plaque	\$25
Workshops (Speaker fees, space rental, travel reimbursement, printing)	\$1,000
Rain garden program	\$6,200
Right of Way Tree Planting/Village Tree Program	\$15,519
Total	\$23,000

The EAC passed with a second and 4-0 vote a motion to propose this budget.

Consideration of Right-of-Way Trees/Village Tree Program Update and PECO Green Region Grant.

The EAC passed with a second and a 4-0 a motion to move the tree program item to the next item on the agenda.

Vice Chair Ellis and Mr. Bill Hartman, 57 Knox Ave., provided an update and proposed budget for the street tree program in the Village of Berwyn area. Mr. Hartman shared estimated budget figures for 20, 25, or 30 trees, and both with and without a landscaping company's assistance with the tree planting.

The group discussed volunteer or homeowner participation in tree planting and concluded that, while volunteers and homeowners can perform lighter tasks, using a landscaping company is a better option for the heavy work involved.

It is a goal of the BOS to bring in more grants, and the EAC will seek grants to fund this project. This year the PECO Green Region Grant deadline does not match the EAC's 2023 timeline, but if the EAC prepares a three-year plan, it can include grant proposal submissions in the future.

The program will be designed with an application process and criteria for selection of the properties that will receive a tree. Manager Briggs encouraged the EAC to consider laying out for the BOS what the program plan is for Years 2 and 3.

The EAC will initiate this project with approximately 20 trees and the use of a landscape company. Using the provided budget figures and an estimate of \$1,200 for legal assistance in writing the required documents, the EAC passed a motion and a second with a 4-0 vote to approve \$15,519 for the tree project portion of the 2023 budget request to the BOS.

Consideration of EAC Insights Newsletter and Articles for Everything Easttown.

Chairperson Rash had sent several articles to the EAC, Manager Briggs, and Supervisor Wacey for their consideration in advance of the meeting. Minor edits were made, and it was noted that Tredyffrin Twp has passed a single-use plastic ban that includes bags, Styrofoam, and straws. The EAC passed with a second and a 4-0 a motion to accept Chairperson Rash's articles for the EAC Insights Newsletter.

The deadline for Everything Easttown is October 1. This will consist of notices about the compost drop and seed saving events, a workshop on plastic bags, and an article written by Vice Chair Ellis about MS4. Secretary Pyati will revise the plastic bag ban FAQ into an article and send it to Chairperson Rash and Manager Briggs.

Consideration of Environmental Advisory Council Webpage Update.

The EAC viewed the current update of the EAC webpage. An editing change to swap the names of Supervisors Bosco and Wacey was recommended.

Liaison Report – Board of Supervisors.

Councilmember Doms reported on the Board of Supervisors September 6 meeting per the notes below. Supervisor Wacey reported on the September 19 meeting, at which the omnibus bill was discussed and had minor edits.

Liaison Report – Planning Commission.

No video feed was provided for the last PC meeting. Vice Chair Ellis reported on its agenda items: a riparian buffer building request from a homeowner that was declined, and a sidewalk installation on Bridge Ave., 1st Ave., and Waterloo Ave was discussed.

Liaison Report – Parks and Recreation Board.

Chairperson Rash conveyed Councilmember Hill's report that the P&R Board is considering the replacement of park benches as a budget item. She noted that the Trex benches from the recycling program can be used and will speak to the P&R Board.

Liaison Report: Recreation, Open Space, and Environmental Resources Plan Task Force.

The ROSERP Task Force has not met since the first meeting in August. Supervisor Wacey mentioned an interest in a town square, notably when apartment residents with children need a place for recreation. Pocket parks were discussed also.

Single-use Plastic Bag Ban Ordinance Implementation Plan.

Chairperson Rash and Councilmember Doms have revised the FAQ to match the ordinance language and hope to get the FAQ and list of vendors posted as soon as possible. Edits to the FAQ were made, and the EAC approved the FAQ with a motion, second, and 4-0 vote. A workshop on the plastic bag ban was planned, with a target date of Thursday, November 10 at the Easttown Library. Speakers will include Faran Savitz of PennEnvironment, a member of the West Chester Sustainability Council, and an attorney.

Compost Program Workshop and Program Implementation.

Chairperson Rash gave Councilmember Hill's update on the program. The workshop in September had 14 attendees: seven in person and seven on zoom. The compost drop program will begin on October 1, from 12-2 pm at the Easttown Library parking lot.

Seed Library Workshop and Donations Update.

The seed saving program will begin with a lecture on Tuesday, November 15, at 6:30 pm at the Easttown Library, with a speaker from Jenkins Arboretum. The seed library has received a large donation of seed packets from the Chester County Food Bank. Chairperson Rash requested assistance in writing instructions for sorting and storing the seeds.

New Business.

A motion to add the Darby Creek Watershed Partnership to the agenda was seconded and passed with a 4-0 vote. Councilmember Doms confirmed that the stormwater model can be used by laypeople, and in the future this project can be shared with residents. The Stormwater Management Advisory Committee did not express interest in attending.

Public Comment.

There was no public comment.

Announcements.

The next regularly scheduled meeting is Thursday, October 27, 2022, at 7:00 pm.

Adjournment

The meeting was adjourned at 9:26 pm.

Respectfully submitted,
Radha Pyati
Secretary, Easttown EAC

Project Steering Committee for developing the *Darby Creek Watershed Resilience, Management and Conservation Plan*

Darby Creek Valley Association has enlisted Natural Lands to provide technical assistance, community outreach and project management in preparing an updated watershed management plan. The plan is intended to focus particularly on strengthening the resilience of the watershed and its communities in the face of anticipated climate change impacts, and recognizing disproportionate environmental burdens in identifying management measures applicable to environmental conditions in various portions of the watershed.

Natural Lands will partner with a Project Steering Committee in carrying out this work. As indicated in the Scope of Work: "The steering committee should be made up of approximately 10 to 12 participants and will guide the project. The Steering Committee members should have a variety of backgrounds and be representative of the watershed geographically, racially, and socio-economically. The members should bring diverse perspectives to the group. They should include representatives of DCVA, Norwood Borough, Radnor Township [sponsoring municipalities], and other communities, relevant subject matter experts, community members and others with knowledge and interest in advancing this plan."

Project Steering Committee members will be expected to:

- attend 5-6 meetings over the 3-year plan development period;
- tap into their community relationships and networks to recommend participants in the 5-6 focus groups that will be convened;
- review drafts of materials developed by Natural Lands;
- help ensure broad public engagement and input gathering.



Darby Creek Watershed

Resilience, Management and Conservation Plan

Scope of Work

September 17, 2021

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Introduction

Founded in 1984, by residents in the Darby Creek Watershed, DCVA is a nonprofit watershed organization dedicated to the protection and enhancement of the watershed and its resources, including water, wildlife, historical sites, floodplains, wetlands, and riparian zones. A major goal of DCVA is the immediate prevention of all forms of pollution in the Darby Creek and its tributaries, including a prohibition against all forms of dumping and construction within floodplain zones and maintenance of a debris-free stream through clean-ups and expanded public education programs.

DCVA has worked energetically to support the protection of historic properties, such as the Swedish Cabin and Blue Bell Inn, and to establish a 30-mile greenway to safeguard the Darby Creek and its resources as it courses through the many highly urbanized communities. DCVA, with assistance from the U.S. Environmental Protection Agency (“USEPA”), also supports a volunteer water quality monitoring program. DCVA continues to collaborate with public and private schools, the Delaware County library system, the Delaware County Environmental Network, the Philadelphia Water Department and the Darby-Cobbs Partnership, the Partnership for the Delaware Estuary (formerly Delaware Estuary Program), the Delaware County Historical Society, the Stroud Water Research Center, the Philadelphia Water Department (“PWD”), and Aqua Pennsylvania (formerly known as Philadelphia Suburban Water Company).

Darby Creek Valley Association finalized a Darby Creek Watershed Conservation Plan in 2002. The plan envisioned establishment of a “ribbon of green” vision for the Darby Creek watershed that would restore stream corridors, provide riparian buffers, increase open space and recreational opportunities, educate residents and foster inter-municipal cooperation on a watershed basis. In the intervening years, the effects of climate disruption - intensified storm events, disruption of weather patterns, more severe heat waves - have compounded the stresses on watershed resources. The need has become clear for a watershed plan that emphasizes the fostering of greater climate resilience in the face of uncertainty about the extent of change in the future. In addition, DCVA acknowledges that a worthy plan for the Darby Creek watershed must recognize the racial and socio-economic disparities among our watershed communities and address the disproportionate pollution burdens and relative lack of access to watershed resources experienced in portions of the watershed. This plan must also result in actionable recommendations and achievable goals.



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Now, Darby Creek Valley Association wishes to prepare a plan that advances the goals set forth in the 2002 plan but is grounded in the reality of 2021. A modern plan must continue to advance river conservation but acknowledge that conservation is not enough. We must accept that we cannot completely undo the past 400 years of stream degradation, but we can begin to better manage the watershed. We cannot stop climate change with this plan, but we can implement changes which will make communities more resilient to its effects. This plan cannot desegregate the watershed or make it socially or environmentally equitable or just. But it can and must hear the needs of every segment of the population engage with them in shaping strategies to address them.

DCVA has enlisted Natural Lands to provide technical assistance, community outreach and project management for their plan. They have also found municipal sponsors in Norwood Borough and Radnor Township. These two municipalities provide the perfect partners, as they represent the upper and lower watershed, two very different landscapes.

The Darby Creek Watershed spans four counties and 31 municipalities. The communities within the watershed include a wide array of natural, physical, socio-economic, and racial characteristics. At the northern end of the watershed, communities like Radnor and Haverford Townships feature greenways which provide shade and buffering to the Darby Creek and its tributaries. The lower end of the watershed encompasses more developed Boroughs and urban Philadelphia, where much of the landscape is built out and segments of streams are piped underground. A series of commercial corridors, covered with asphalt and other impervious surfaces, cut across the watershed every few miles. Recommendations which make sense where the tributaries flow in open channels simply will not work on piped systems. The Plan will need to account for these physical and hydrologic differences.

The watershed as a whole is racially diverse, but many of the individual communities have a predominant racial demographic. For instance, Easttown and Yeadon have similar population sizes at just over 10,000 people. Easttown is 88% white, while Yeadon is 88% black. Some communities, like Upper Darby, are more racially diverse. This community is currently 46% white, 34 % black, 13% Asian and 5% Hispanic or Latino. It will be vital for our predominantly white organization to seek to engage residents of more diverse communities by partnering with trusted community organizations.

With this variety of race and culture, we also expect many different languages to be spoken within the watershed. According to the Department of Justice Civil Rights Division's 2015 Language Map App, over 20,000 Delaware County residents have a preferred language other than English. For these residents, Chinese, Korean, Vietnamese and Spanish are the predominant first languages, but many others are also in use. The variety of languages may present challenges in connecting with these communities, but multilingual printed materials and interpreters may help resolve this obstacle.

The entire watershed is impacted by the effects of climate change. Disruption of historic precipitation patterns means altered hydraulics and hydrology and greater uncertainty about the effectiveness of management measures. We do know that different areas within the watershed will experience the impacts differently. Less densely developed communities, which feature more preserved open space and natural areas, may be more resilient and able to better withstand extreme weather events, flooding and other aftereffects. Droughts may be more disruptive to the upper reaches of the watershed, where headwaters depend on precipitation for recharge. Downstream, storms and flooding likely cause the

most difficult challenges where there is less pervious land available to soak up stormwater and contain flashy streams.

While the plan will lean heavily on the public participation process and what we see and hear happening in the watershed, it must also be rooted in science. Studies have recently been produced at many levels, which can provide important baseline information. Non-profits and county governments have prepared studies which analyze the financial costs and savings related to natural features and the services they provide. Delaware County is currently preparing their own "Return on Environment" study. Municipalities across the region have prepared sustainability plans. At the state level, DCNR prepared a Climate Change Adaptation and Mitigation Plan. DEP has produced the PA Climate Impact Assessment. At a world wide level, the United Nations Intergovernmental Panel on Climate Change has released the Sixth Assessment Report and the World Bank has released their Climate Change Action Plan, which includes near term recommendations for 2021 to 2025. There are no shortage of existing studies, reports, and assessments, at every scale. We believe we can incorporate information from many of these plans.

We may need to conduct hydraulic modeling to gather watershed specific data. We may be able to use existing data and studies conducted by other local institutions or use online tools such as "map my watershed" and "model my watershed". However, we may need to seek out additional consultants if these tools and reports are insufficient.

The plan will also support or implement many of the goals of Delaware County's own Open Space, Recreation and Greenways Plan. The guiding principles, Conserve, Enhance and Connect, could just as easily guide a Resilience, Management and Conservation Plan. The plan will certainly recommend that we Conserve more land, to buffer streams, encourage infiltration and keep development out of floodplains and recharge areas. We must Enhance the resources we have, whether they are natural areas, or developed lands with opportunities to install green infrastructure. These enhancements would improve the health of the watershed and residents' daily lives.

This plan can Connect in many ways. More conservation could connect trails and greenways, creating the interconnected trail and greenway system envisioned by the county. Different strategies must also be connected. Municipalities may spend to conserve land, but their investment will be more worthwhile if they also zone for open space protection in new development, require green infrastructure, pursue redevelopment, and encourage tree plantings on properties surrounding conserved land. Finally, and maybe most importantly, this plan can connect people. The watershed covers a diverse set of communities, home to people of all walks of life. By showing them that they share the watershed, we hope to bring them closer together.

This Resilience, Conservation and Management Plan for the Darby Creek watershed is intended to continue advancing the goals of maintaining and enhancing watershed resources and providing financial and technical assistance for local watershed conservation planning activities. The plan will integrate anticipated impacts of climate change in intense precipitation events and run off, impacting the health of the Darby Creek and its tributaries, affecting local communities, and putting those downstream in harm's way. This plan must focus closely on environmental justice and collaboration throughout the watershed.

Scope of Work

In order to prepare an implementable and equitable plan, we propose the following scope of work:

1. Public participation

In order to create a plan that works for the diverse communities within the watershed, it must depend on input from the public. A robust information gathering campaign is essential. We will engage with members of the public, members of environmental groups and commissions, municipal staff members and elected officials. We will seek input from people with a variety of lived experiences and interests, in order to learn how they interact with the waterways and how we can improve their experiences while protecting the watershed. Most importantly, we will reach out to communities, rather than expecting them to come to us. We will provide materials in multiple languages and employ interpreters. We will hold meetings in locations where surrounding residents can walk, bike or use public transportation. We will seek to partner with well-established and trusted community organizations.

We will seek public input through the following methods:

- a. Steering Committee Meetings (5-6) – The steering committee should be made up of approximately 10 to 12 participants and will guide the project. The SC members should have a variety of backgrounds and be representative of the watershed geographically, racially, and socio-economically. The members should bring diverse perspectives to the group. They should include representatives of DCVA, Norwood Borough, Radnor Township, and other communities, relevant subject matter experts, community members and others with knowledge and interest in advancing this plan.
- b. Focus Groups (5) -Natural Lands will conduct a series of focus groups on topics to be determined by the SC. Topics may include stormwater management, regulations, government or other similar topics. We strongly recommend that attendees be drawn from across the watershed, representing the different landscapes within the watershed as well as a diversity of ethnic, racial and socio-economic backgrounds.
- c. Key Person Interviews – (20-25) – Natural Lands will conduct KPI's with members of the public who may have valuable knowledge or information, as identified by the SC. These KPI's may be representatives of neighborhood groups, members of local commissions, community leaders, historians, scientists or others with specialized knowledge. The consultants will also interview a sampling of municipal staff and officials from throughout the watershed to gain insights into their successes, needs and challenges. We will also interview staff from Federal, State, and Local agencies and governments. To successfully complete this project, we will involve all of the counties with municipalities in our watershed (those being, Montgomery, Delaware, Chester, and Philadelphia counties). These counties have agreed to contribute to the success of this project by providing some time, thought, and funds to the development

of this plan. We will also interview staff from agencies such as DCNR, DEP, the local Conservation Districts and others.

- d. Online Questionnaire – Natural Lands and DCVA will produce an online questionnaire to be distributed throughout the community. We will produce the questionnaire in multiple languages. We will seek assistance from the municipalities and community organizations to distribute and publicize the questionnaire.
- e. Open House Public Meetings – Natural Lands will work with Darby Creek Valley Association to conduct open house style public meetings in the early stages of the project to collect information. We will also hold public meetings later in the process to share the key findings and recommendations included in the plan. DCVA, Natural Lands and other partners can share information with the public and answer residents’ questions.
- f. Summary of Public Participation – Natural Lands will prepare a summary of public participation, to be included in the final plan as an appendix item.

2. Plan Chapters, Maps and Data

Natural Lands will work with DCVA and project partners to create the body of the plan. This will include the following sections:

- a. Purpose, Goals and Vision
 - i. Purpose Statement, which describes why the study is being conducted and identifies the major issues to be addressed.
 - ii. Goals, describing what the plan will accomplish.
 - iii. Vision Statement, describing what success would look like, or how we would know the plan was a success.
- b. Watershed Characteristics - To better understand the natural, physical and anthropological characteristics of the watershed, we will analyze as much information as possible, through the study of census data, collection of public comments, analysis of existing reports and published data and use and creation of maps. We will, at minimum, study and summarize the following project area characteristics:
 - i. Location- geographic location within the state including counties, townships, etc.
 - ii. Size- watershed area in acres or square miles and length of river
 - iii. Topography- mountainous, upland, bottomland, wetland, type of cover, etc.
 - iv. Major Tributaries- names, lengths, etc.
 - v. Land Use- farming, residential, commercial/industrial, etc.
 - vi. Zoning, Subdivision and Land Development, and other relevant regulations
 - vii. Social/Economic Profile
 - viii. Population Centers- proximity to river corridor, trends, etc.

- ix. Transportation Facilities- roads, highways, trails, railroads, airports, terminals, etc
- x. Major Sources of Employment- location, size, commercial, industrial, etc.
- xi. Outstanding or Unique Features- river related values, etc.
- xii. Hydraulic modeling or other engineering or scientific data

c. Issues, Concerns and Constraints

We will work with the Steering Committee, DCVA, municipal leaders and the public to identify the most important and relevant issues, concerns and constraints related to the watershed, and to provide implementable recommendations which empower the communities to address these issues. We expect to explore topics such as:

- i. Climate change and its effects, including recharge and downstream flooding
- ii. Effects of major storms, including local flooding, power outages and drinking water conservation measures
- iii. Environmental justice and equity
- iv. Water quality
- v. Erosion and sedimentation
- vi. Stormwater management, infiltration, impervious surfaces and green infrastructure

d. Land Resources

In order to better understand the threats and opportunities within the watershed, we'll need to have a strong understanding of what resources exist. Therefore, we'll explore the following natural resources, land uses and elements of the built environment:

- i. Soil Characteristics- group, type classification, geology, etc.
- ii. Limitations/Suitability- erosion, building, drainage, wet, etc.
- iii. Ownership (%)- public and private
- iv. Critical Areas
- v. Landfills
- vi. Hazard Areas
- vii. Waste Sites
- viii. Abandoned Mines- Quarries
- ix. Sinkholes
- x. Distribution of and access to public open spaces

e. Water Resources

We will closely study the Darby Creek and its tributaries to gain a more thorough understanding of how the watershed works. We'll study the following aspects of the watershed's hydrology:

- i. Major Tributaries- name, length, protected use, confluence points, HQ/EV, etc.
- ii. Wetlands- map, characteristics, etc.

- iii. Floodplain- map, insurance, problems, etc.
- iv. Lakes and Ponds
- v. Water Quality
- vi. Point Sources
- vii. Non-Point Sources, including thermal pollution
- viii. Monitoring
- ix. Water Supply- use of surface and underground, locations, service area, yield, etc.
- x. Public water providers and private wells
- xi. Wellhead Protection Areas

f. Biological Resources

The well-being of the human population of the watershed is inextricably linked to the health of the ecosystem and its biodiversity. We will study the biological populations present in the watershed, potential threats to their viability in the face of climate change-induced alteration in conditions. We will seek out existing studies, plans and experts, to better understand the following:

- i. Wildlife, including terrestrial and aquatic species
- ii. Vegetation, with a focus on native and invasive species and the role they play in the health of the watershed
- iii. Species identified through PNDI reports and similar studies
- iv. Important habitats as identified through PNDI reports and similar studies

g. Cultural Resources

A strong understanding of the cultural resources within the watershed will help us better understand how people use the watershed, where they gather, how they communicate, and most importantly, how changes in the watershed, flooding and other effects impact the residents' daily lives. If we know where recreational facilities exist, we may be able to tailor strategies to conserve, enhance and connect these spaces. Therefore, we will depend on the Delaware County Open Space, Recreation and Greenway plan and other local plans to inform us about recreation sites. By identifying cultural centers, such as places of worship and education centers, we can connect with the local community in the places they feel most comfortable. Therefore, we will identify the following:

- i. Recreation Use (demand)- day, night, seasonal, special, etc.
- ii. Biking, hiking, running and walking
- iii. Picnicking
- iv. Birding
- v. Organized sports
- vi. Scenic enjoyment
- vii. Fishing and boating
- viii. Camping

- ix. Hiking and biking trails
- x. Picnic tables and group shelters
- xi. Sports fields
- xii. River access
- xiii. Boat access
- xiv. Scenic vistas
- xv. Camper and tent sites, etc.
- xvi. Archaeological and historically important sites
- xvii. Modern Cultural Centers, including churches, synagogues, mosques and other places of worship, community centers, recreation centers and Alliance for Watershed Education Sites

3. Issues, Concerns and Constraints

The public participation process will include interaction with subject matter experts and local officials but will focus on listening to community members so we can address their specific needs and wants. We expect the experts and officials to tell us about climate change and its broad effects on the community, including flooding and the after effects of major weather events, water quality, erosion and sedimentation, impervious surfaces and green infrastructure. But we want to hear from the public how these broader issues, combined with social injustice and lack of equity, affect their daily lives. We will develop a list of issues, concerns and constraints and address those of the highest priority through the development of implementation strategies, described below.

4. Implementation Strategies

After listening to the community members, analyzing existing data, interacting with experts and officials and studying the watershed's physical, cultural and natural features, and policies and regulations, we will create a list of issues, concerns and constraints, as described above. We will then develop strategies to be implemented at the individual, community, municipal and watershed levels, to better conserve and manage the watershed for resiliency and respond to the community's concerns, issues and constraints. These strategies will allow the community to use the plan as a guide which can be adapted to their needs. Specific strategies will be determined during the development of the plan, but we expect them to include the following:

- a. Conservation of open space, through easements, acquisition, conservation subdivisions or limited developments, policies and ordinance amendments
- b. Enhancement of existing parks, open spaces and public, as well as private, properties. This could include planting riparian buffers in open space, installing rain gardens on private properties, removing unused parking areas and other unnecessary paving at community centers or libraries, creating proper stream access areas for fishing and launching boats, and other strategies which enhance the available land and water resources.
- c. Connection of physical features, such as protected open spaces, riparian buffers and bmps, to create the "ribbon of green" envisioned in the 2002 RCP

- d. Connection of people across the watershed, through educational and recreational programming, events and groups

5. Deliverables

Natural Lands will prepare the following documents, with support from DCVA, at the appropriate times.

- a. A Draft Plan will be provided to the Steering Committee for review and comments between months 15 to 20. The draft plan may be accompanied by a visual presentation to the Steering Committee if appropriate. The draft plan will include all relevant information, but may not include all of the relevant maps, photos and supporting materials. This plan will be provided in PDF format.
- b. A Final Plan will be prepared at the conclusion of the process, including all relevant information, maps, photos and supporting materials. This plan will be made available to the public, posted on the DCVA and municipal websites. The plan will be provided in a PDF format. Due to the environmental and financial cost of printing, printed and bound copies will only be provided to steering committee members or municipalities by special request, and then, only if any remaining budget allows.
- c. An Executive Summary will be prepared which focuses primarily on recommendations for the watershed. The Executive Summary will be prepared in a format which is easily shared, relies heavily on graphics and is easily translatable to different languages.

6. Conclusion

Much has changed since the Darby Creek Watershed River Conservation Plan was prepared, nearly 20 years ago. The design and planning professions have realized that bulky plans filled with jargon sit on shelves, never to be implemented, and that we must produce plans which can be easily followed and implemented. Our nation and the world have started to accept that climate change is a reality, and have been forced to reckon with the financial, social and emotional burdens of its effects. Social justice, racial and socio-economic inequities have been brought to the forefront of our consciences, by a variety of social justice movements.

In the Darby Creek Watershed, all of these changes can inform the Resilience, Management and Conservation Plan. We must create a document which DCVA, Delaware County, municipalities, non-profits and even individual landowners, can pick up, easily understand and use to find ways to improve the watershed. The watershed has clearly demonstrated the effects of climate change, as flooding at the lower end of the watershed washes out trails and roads and inundates whole neighborhoods. Census data shows that these areas also tend to be poorer and more racially diverse or primarily populated by people of color. These smaller communities also inherently have less tax revenue, less technical expertise and capacity and may not have been given the opportunity to be heard.

The Darby Creek Watershed Resilience, Conservation and Management Plan will not solve all of these problems. But it will give everyone in the watershed a voice. It will identify ways for professionals to work together to help solve the problems. It will empower every resident to make a difference. The plan will conserve, enhance and connect, in ways which improve the watershed and its residents' daily lives.

Report on Drexel/Penn/Hunter College Darby Creek Watershed Project
Kate Doms
August 24, 2022

"In September 2021, [a] collaborative research team (Drexel University, University of Pennsylvania and Hunter College) received funding from NOAA to investigate how the increase in development and impervious surfaces in the Darby-Cobbs watershed over the decades has had major implications on flooding downstream, particularly in Eastwick. The goal of this project is to explore how to connect upstream and downstream communities to build resilience in the watershed." (Quoting the original email to Easttown Township).

An or the ultimate goal (it became clear at yesterday's meeting) is to collect data to build a model to predict future flooding, damage, economic loss, etc., (see below).

Kate Doms is representing Easttown as a member of the Watershed Partnership Team (WPT) which is made up of representatives of townships, Natural Lands Trust, Darby Creek Valley Association, Delaware River Keeper and other organizations as well as the researchers from Penn, Drexel, and Hunter College.

A group of people from the watershed were hired to collect data, including GIS data and information from the townships (e.g. Pollution reduction plans = PRPs). These folks are called the Watershed Adaptation Corps. They are mostly graduate students.

There have been three meetings thus far at which goals have been discussed and the WPT has made suggestions on types of data to collect. The meetings have all been remote thus far. In person meetings are desired. The project ends in 2023. At the August 23, 2022 meeting the WAC reported on the data they have collected thus far. They are trying to get PRPs from all townships from Easttown to Eastwick as one type of data to be put in a model that will be developed.

The model being developed will incorporate percent impervious surface, storm frequency with climate change, etc. The model will be available to the public. Apparently, one should be able to change a parameter, for example percent impervious surface, and see the effect of that change. The output can include socio-economic effects, health, best management practices (BMPs), flood damage. The time frame (hours, years) for the output is still under consideration. The plan is that the model will be able to be used for a single municipality or the whole watershed. Decision making (by municipalities?) can be informed by the information gleaned from the model.

Two questions:

1. The Easttown EAC asked if a member of the Easttown Stormwater Task Force could attend the meetings, the organizers said yes when we asked this question several months ago. Do we want to recommend this to the stormwater task force that they send someone to the meetings?
2. Can the Easttown Township PRP be sent to Mario Cimino, the WAC representative tasked with obtaining the Easttown Township PRP?