

Crowd Sourcing Environmental Monitoring through Citizen Science

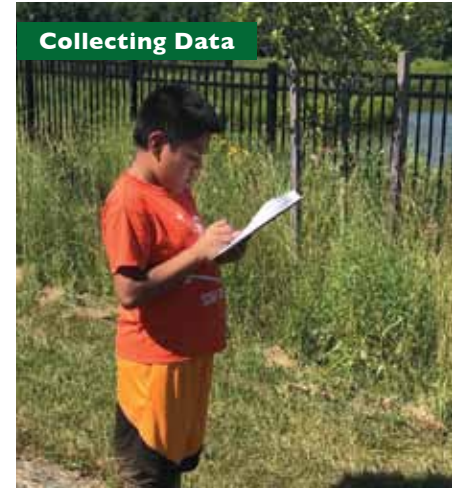
By Kristy Morley

Butterflies, salamanders, birds, frogs, bees, caterpillars, plants...so many things live in and use the land of the watershed, how can we keep track of them all?

As part of the strategic plan adopted in 2018, WVWA identified an initiative to restore the ecological vitality and resilience of a diversity of habitats. Our Conservation Team along with dedicated volunteers are busy completing projects to do just that, guided by our land management plans.

Monitoring is an important component of these plans, so that we can evaluate the success of our management efforts, or determine areas for continued improvement. For example, confirming the presence of American Woodcock during the breeding season would allow our Conservation Team to manage habitats in a manner that will lead to continued breeding success of this bird. Existing efforts to monitor migrating monarch butterflies have shown us that we need to increase the diversity of fall blooming nectar plants in our meadow areas.

So, what is Citizen Science? Generally speaking, it is the use of non-scientists to help conduct scientific research studies. This can take several forms, including data gathering, data analysis or reporting. Citizen Science isn't new in the watershed, our Creek Watchers will be celebrating their 5th anniversary in September of 2019, and volunteers have previously helped with monitoring nest boxes on our preserves.



WVWA is significantly expanding these efforts in 2019 with the addition of eight new Citizen Science projects including monitoring vernal pools, salamander surveys, chimney swift tower monitoring, and native bee surveys. We need your help to complete this work! In addition to field based projects, some projects also need data entry and analysis support.

Come learn about these projects and more at our **Citizen Science Fair on February 12, 2019**, visit wvwa.org/ calendar for details and registration. There are projects for all ages and you don't need any prior experience – all training will be provided.

Why should I become a Citizen Scientist?

- Learn more about something that interests you or find a new area to explore
- It's fun! You never know what you might find.
- Make a difference. The results of these projects will directly impact our land management decisions.

By The Numbers 2018

1,600 students from **10 local schools** participated in our environmental education program. **92 Red-backed salamanders** were caught and safely released by excited 4th graders.

112 birds across **22 different species** were studied at our MAPS Bird Banding Station at Crossways Preserve.

359 native trees and shrubs were planted in the Watershed.

13 acres of invasive plant species removed so that native plants can flourish.

262 visitors learned about historical engineering and technology at the Evans-Mumbower Mill.

48 monarch butterflies were tagged to track their migration, **28 of which were raised by residents and staff** at the Hill at Whitemarsh retirement community.

6,242 people follow us on Facebook, Instagram and Twitter. **Do you?**

1,236 community members financially supported our mission through membership, annual fund donations, and designated gifts. For a complete list of donors visit www.org/2018donors.

126 corporations, foundations, and small businesses supported our work through sponsorship, donations, and grants.

70 events engaged **2,872** community members in education and recreational activities throughout the Watershed.

603 volunteers contributed **4,148** hours of work in support of our mission.

8 acre Cheston Family Preserve expanded the amount of land forever preserved along the Prophecy Creek corridor.

151 days of rain totaling **67.8** inches caused a lot of flooding in the Wissahickon Valley. But the Wissahickon Clean Water Partnership is actively working to manage future stormwater issues.

6 office dogs work full-time and part-time to greet visitors and keep the office filled with hair and happiness.

54 nestlings lived in nest boxes on our preserves until they were ready to strike out on their own.

30 wayfinding and **6** informational trails signs were installed along the Green Ribbon Trail and on our Preserves.

10 major trail improvements were made – including replacing bridges and boardwalks – to keep trail users safe and dry(ish).

1 new bridge at Briar Hill Preserve was funded by **45** Giving Tuesday donors and a generous match from Horseways.

WE BELIEVE – PEOPLE BENEFIT WHEN NATURE THRIVES.

Trusted Stewards of Nature and Your Dollars

LETTER FROM GAIL FARMER, EXECUTIVE DIRECTOR



On global and national levels, 2018 brought risks to existing environmental protections into stark view. As an individual, the sense of powerlessness to affect change at these levels can be overwhelming. However, as a financial supporter of WVWA myself, 2018 has also reminded me that the place where we can really leverage our power for change is in our local community. We can and we have.

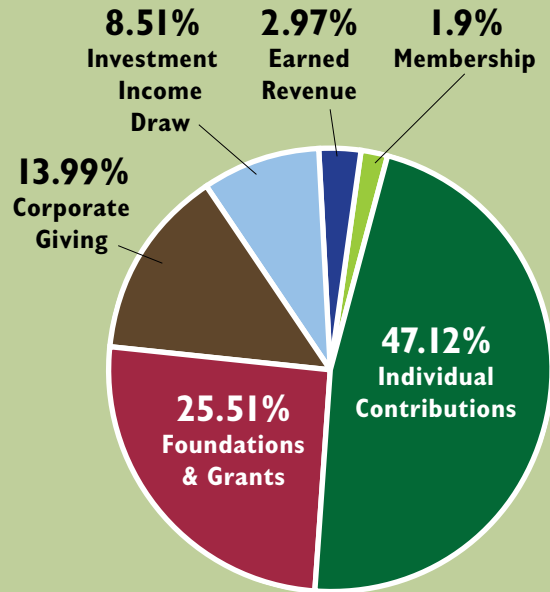
WVWA raised more funds in 2018 than we did in 2016 and 2017 combined and **86 cents of every dollar contributed was spent on direct services to land, water, and people.** The investment of 1,236 local residents and 126 businesses and institutions has resulted in real, on-the-ground improvements to our local environment.

Globally, wildlife populations have declined by 60% in the last 40 years, largely due to habitat loss. With your investment, WVWA actively protects open space and restores habitats. If you drive down Lewis Lane and visit the Cheston Family Preserve at Briar Hill, you will see the impact of the \$1.9 million dollars we raised in 2018 to permanently protect these 8-acres of open space. You can also witness our efforts with a visit to Crossways Preserve, where we have improved meadow, wetland and woodland habitats, supporting a richer and more diverse community of plants and wildlife. You may not be able to stem the tide of extinction in the tropics, but you can ensure that the chimney swift, monarch butterfly, and red-backed salamander have a place in your community. You can and you have.

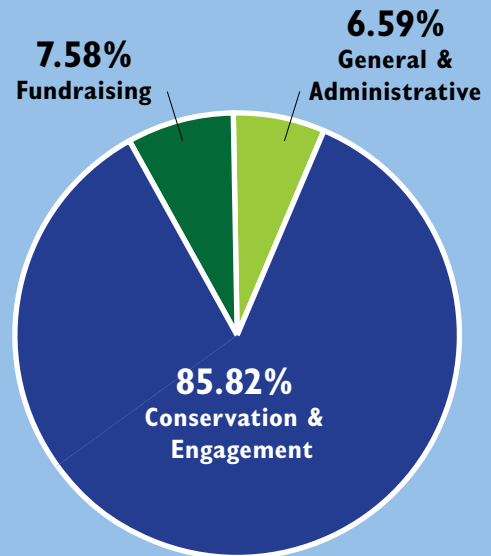
The scope of the Clean Water Act is under scrutiny, putting into question the EPA's commitment to protecting the health of our interconnected system of waterways. Locally, however, WVWA spent significant time in 2018 working with 13 municipalities, 4 wastewater treatment facilities, and 3 other nonprofit institutions to draft a shared water quality improvement plan for the Wissahickon Creek. You may not be able to stop changes to the Clean Water Act, but you can ensure that the Wissahickon Creek is being cared for. You can and you have.

To all of you who have invested in WVWA, I hope you read this newsletter and feel encouraged by the environmental impact you are having. "Think globally, act locally" has never been more important. Thank you for your support.

Source of Funds



Use of Funds



2018 Unaudited Numbers

TOTAL INCOME: \$3.5M

TOTAL EXPENSE: \$3.2M

2018 included the \$1.9M acquisition of the Cheston Family Preserve at Briar Hill

CREATING A POLLINATOR FRIENDLY GARDEN

By Kristy Morley



Here are a variety of things that you can do to make your yard a haven for local pollinators such as butterflies and native bees:

- **Plant a variety of native flowers** that bloom from early spring through late fall, and include a variety of flower sizes and colors. Reduce the amount of lawn in your yard.
- **Plant in clumps** of three to five rather than a single plant.
- **Eliminate herbicides and insecticides** whenever possible. Check plant labels to ensure they haven't been treated with neonicotinoids, which are toxic to

caterpillars that might feed on the leaves. Expect to see (and welcome) some damage from caterpillars!

- **Dead limbs that can be safely left** can be used as essential nesting sites for native bees
- **Leave your leaves in the fall.** Many pollinators survive the winter in larval form using leaf litter for protection.
- **Provide other features** such as: water, puddling area, open bare ground (some bees need for nest sites), add a rock pile or wall for nesting or overwintering.



- **Include larval host plants** to feed butterfly caterpillars. Don't forget that host plants can include trees and shrubs!
- **Visit wwa.org/nativeplants** for information on finding the right native plants for your property.

STREAM SMART HOUSE CALLS FOR SANDY RUN RESIDENTS



stream smart

STORMWATER HOUSE CALLS

By Lindsay Blanton

As part of our work with the Delaware River Watershed Initiative, WVWA is launching a new pilot program for residential stormwater assistance. The Stream Smart House Calls program will be launched in a small area at the headwaters of the Sandy Run, the largest tributary to the Wissahickon Creek. The program will provide support for homeowners to increase their capacity to retain and clean rainfall that would otherwise flood and pollute the Sandy Run during storms.

This spring, WVWA will begin home audits in our pilot area and offer resources to supply residential properties with rain gardens, downspout planters, rain barrels and other green solutions to manage runoff. The goal is to ensure densely suburban neighborhoods can better manage storms, improve water quality over time, and ultimately reduce flooding in the Sandy Run.

If you live near Roychester Park in Abington Township and are interested in participating in this program, please contact us at 215-646-8866 or info@wwa.org today!

YOUR COMMUNITY AT WORK

David Freed



MONARCH REARING AND TAGGING

In August and September, volunteers from The Hill at Whitemarsh raised 28 monarch butterflies from eggs and caterpillars collected on our preserves. Ten of them were tagged as they began their migration to Mexico.



EVANS-MUMBOWER MILL OPEN HOUSE

As the only working mill in Montgomery County, the Evans-Mumbower Mill operates monthly Open Houses, starting in April, usually, on the third Sunday of each month. In 2018, approximately 250 people visited the mill and volunteers spent 385 hours sharing their knowledge and love for this historical mill.



BOYS & GIRLS CLUB AT PISZEK PRESERVE

Working with local groups is key to our volunteer program. Eighteen middle school students from Ambler's Boys and Girls Club volunteered for 3 hours to help clean the Sandy Run Creek on our Piszek Preserve. We were able to collect about 20 large bags of trash and some large items like the tire pictured above.



MERCK WORKDAY AT DODSWORTH RUN PRESERVE

In October, 18 Environmental Compliance employees from Merck volunteered at our Dodsworth Run Preserve. They weeded, replanted a pollinator garden, and removed invasive plants. They were also able to catch 12 monarch butterflies and tag and release them for our Monarch Butterfly Study.



EVANS-MUMBOWER MILL EDUCATION

Approximately 500 students, grades 3-6, from surrounding public and private schools visited the mill in 2018 to learn about simple machines and to see the mill in operation. Students see if they can produce more corn flour by hand grinding than the "Super Miller" who uses simple machines and the water wheel to grind corn.



FAIRWOLD ACADEMY TREE PLANTING

Fairwold Academy students and members of Ambler Rotary's Interact Club helped WVWA plant a total of 170 native trees and shrubs this spring and fall at our Byrne Family and Crossways Preserves.



AMBLER YMCA + SHADY GROVE ELEMENTARY SCHOOL PARTNERSHIP

Thanks to Merck and an individual donor match, we are able to provide monthly afterschool programming for the Ambler Area YMCA program at Shady Grove Elementary School for the 2018-2019 school year. The program will culminate in a field trip to take a nature hike, have lunch, and complete a pollinator garden planting project at WVWA headquarters. We are also continuing our weekly nature education with the Knight Park summer camp for a 3rd year this summer, reaching hundreds of local youth with engaging environmental programs that connect them to their local outdoor spaces.

WVWA EDUCATES LOCAL STUDENTS THANKS TO BUSINESS SUPPORT

By Gina Craigo



WVWA's Academic Enrichment Programs—currently with Upper Dublin and Wissahickon School Districts, as well as Center School, Germantown Academy, and Fairwold Academy—compliment and enhance students' classroom curriculum. These programs meet Pennsylvania content standards. But more importantly, they encourage youth to develop and maintain an awareness and enthusiasm for environmental concerns impacting our local watershed.

This program is completely funded through Pennsylvania's Earned Income Tax Credit Program (EITC), in which WVWA is certified as an Education Improvement Organization. EITC provides businesses with a 75% tax credit for donations to an approved organization; the tax credit increases to 90% if the company commits to making the same donations for two consecutive years. Additionally, contributions are also eligible as a charitable donation on federal tax returns! Businesses large and small are eligible to apply.

Every year there is a cap on the tax credits available for the EITC program. New applications for the tax credits are received beginning on July 2, and are awarded on a first come, first served basis. Returning applicants apply beginning on May 15.

For more information or to make a gift, please contact Gina Craigo at 215-646-8866 or gina@wvwa.org

WVWA's Volunteer Program Gets Revamped

By Gina Craigo

WVWA has been very fortunate to have a long tradition of highly invested volunteers – some who date back decades. With the hiring of Roni Anton in mid-2018 as Volunteer Coordinator, and in support of our strategic plan, we've begun building a holistic program where our volunteers don't just think of themselves as a Creek Watcher or Mill Volunteer (or whichever area they give their time to) but with a shared identity of being a WVWA volunteer. In 2019, this will mean a few new things:

- Trainings that speak to the overall mission, as well as specific trainings by program area; these will be required for all;
- More social opportunities – potlucks, gatherings, and time to get to know each other;
- Additional volunteer opportunities;
- Recognition based on hours and longevity, and given out more frequently.



David Freed

With the addition of the Citizen Science program (see page 1 for more information), now is the perfect time to grow the engagement of our current and future volunteers. Since WVWA was founded in 1957, volunteers have been a critical factor to our success in protecting the land and waterways of the Wissahickon Valley, and we look for their help and partnership in our continued success!

NEW SPECIES, FAMILIAR FACES

By Margaret Rohde



2018 marked the fourth year of avian research conducted at Crossways Preserve. Over 8 field days from May-August, 112 birds comprising 22 species were safely captured and banded, and more than 30 visitors came by the station to learn about field research.

Season highlights included three new species: Canada warbler, mourning warbler, and Swainson's thrush. These were migrants passing through on their way north that

might have gone undocumented in the absence of banding, but whose presence underscores the importance of the stopover habitat Crossways provides to migrating birds.

Other highlights included two exciting recaptures of birds originally banded during our first season in 2015 – a gray catbird and a song sparrow, who are now over 4 and 5 years old, respectively, and have returned to the same place year after year!

Banding helps us track the health of our environment and the impacts of our management actions, while providing opportunities for our community to see birds up close. This work would not be possible without the generosity of the Marshall Reynolds Foundation, which has supported the project for the last two years.

Who knows what we'll catch in 2019!

DONOR SPOTLIGHT: HOPE BENNETT

By Anna Marchini

Hope Bennett remembers her childhood in Broomall, where kids would gather at the stream to cool off and amuse themselves. “Who needed a pool when there was a stream right there?” Fast forward to when she and her husband, John, were raising their kids on Morris Road. The Wissahickon Creek became their children's playground but she started to worry about the water quality. “We spent so much time together as a family along the Wissahickon. Even today, it's a special place for our grandkids.” Hope knows that water quality is improving but it takes the effort of committed individuals, organizations, and the municipalities to continue.



“I have been a consistent donor to the Watershed since 2011. It wasn't until I heard Gail Farmer, WVWA Executive Director, speak about the very specific plans to reduce stormwater runoff that I decided to make a meaningful gift. After talking to my financial advisor at BLBB, I made a donation that will help manage nearly five million gallons of stormwater runoff annually.”

Hope asked herself, “What will life be like for my two-year-old granddaughter in the future? Will she be able to explore the outdoors and play in a stream without worries?” Her gift allows WVWA to protect water quality for generations to come.



OUR MISSION

We inspire and engage diverse communities of people to protect, steward and enjoy the land and waterways of the Wissahickon Valley.

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WALK THE WISSAHICKON SPONSORS

**THANKS
TO OUR
SPONSORS**

WVWA hosted two fantastic (but very muddy!) events on our trails in Fall 2018.

A total of 125 hikers ventured on the Green Ribbon Trail for a guided hike at Walk the Wissahickon with 26 people hiking the entire 21-miles to the Schuylkill River. 140 runners joined us for the 5-mile Green Ribbon Trail Race.

These events would not be possible without the long-standing support of our corporate sponsors. Thank you to everyone that participated in these events.



GREEN RIBBON TRAIL RACE SPONSORS

