

# Conservation Crier

Newsletter of the  LANCASTER COUNTY CONSERVATION DISTRICT  
[www.lancasterconservation.org](http://www.lancasterconservation.org)

## What Have We Learned?

Fall leaves are dancing down from the trees and a new school year is underway. We will reflect on the benefits of education in conservation throughout this edition of the newsletter. Many can reap the benefits of conservation practices when just one person decides to act to care for the natural resources we all depend on. Take a look at the work in Lancaster County that is conserving natural resources like soil and water.

## Spotlighting Sonia Wasco, Conservation District Board Chair

As a child, I spent most of my free time outdoors exploring and enjoying nature with my family. I have always held a deep respect for nature and conservation. We should recognize our obligation to protect our natural resources, maintain and enhance habitats, and guard our biological diversity. It was only natural that when I began my career almost 50 years ago here in Lancaster County I volunteered with the Lancaster County Conservation District programs. The District's Mission to "To promote the stewardship of natural resources for Lancaster County and beyond" is near and dear to my heart.

The nine-member Board of Directors appointed by our County Commissioners is tasked with focusing attention on the wise use of the land, water, and natural resources so critical in Lancaster County's unique environment. For almost 75 years, through the hard work of a dedicated Board, passionate volunteers and partners, and an even more skilled team of talented and knowledgeable staff, the district has been assisting individuals along with public and private organizations in solving the complex environmental stewardship problems Lancaster County faces.

In January, we enter into our 75th year celebrating the accomplishments of the Lancaster County Conservation District. Our County Conservation District is not only one of the most respected leaders of conservation efforts in the county but leads Pennsylvania in efforts to restore and protect the environment we have before us. What an exciting time to be involved with making sure the natural resources we are working so hard to protect can be enjoyed by the future generations of Lancaster County residents. Visit the District's website to see where you can help continue the story of the beauty of Lancaster County's rich natural resources. Become a volunteer! [www.lancasterconservation.org](http://www.lancasterconservation.org)



*Sonia Wasco pictured on a recent trip of a lifetime to Antarctica.*



# GIVE EXTRA™




**NOVEMBER 22, 2024**  
**24 HOURS MAKES A DIFFERENCE**

*"My hope is to leave the world a little better for having been there." – Jim Henson. What will you give to make the world better?*

#ExtraGive

Click [Conservation Foundation of Lancaster County](#) on Friday, November 22 and you will support the District Education programs: Lancaster County Envirothons grades 3-12 and the Lancaster County Youth Conservation School.



Presented by   
ARCONIC

*Save the Date*

**September 25, 2025**

6-9 PM at Moonstone Manor in Elizabethtown, PA  
[lancasterconservation.org](http://lancasterconservation.org)



**Diamond Jubilee**

A GALA CELEBRATING 75 YEARS OF CONSERVATION IN LANCASTER COUNTY



Moonstone Manor

## NEW STAFF



*Chelsea McKenzie*

**Chelsea McKenzie** is a Resource Conservationist in the E&S Department at the Conservation District. Millersville University brought her to Lancaster County, where she graduated in 2020 with an undergraduate degree in geology and later earned a master's degree in emergency management and natural hazards. She has had an array of experience in the field doing geotechnical work, phase 1 and 2 environmental reports, and work in land development and acquisition. Chelsea enjoys traveling to Pittsburgh to visit family and attend Steelers games, exploring new places with her partner and friends, and spending time with her cats.

**Thuy Kieu Le** joined Lancaster County Conservation District as a Finance Assistant in May 2024. Thuy received her Associate Degree in Accounting at YTI. Thuy has lived in Lancaster County most of her life. She is married and has three human children and three furry puppies (which are very needy). Thuy also works part-time at Pepperidge Farm and makes eggrolls to raise money for Walk to End Alzheimer's. Thuy enjoys her free time with family in the backyard by the fire, loves the beach, running, playing bingo when there is a family gathering, gardening, and loves crabs.



*Thuy Kieu Le*



*Alex Cooper*

**Alex Cooper** joined the Lancaster Clean Water Partners as a Project Coordinator earlier this year after returning to his hometown. He supports water quality projects across the county, but his focus is advancing the Stream Delisting strategy in East Earl, East Lampeter, West Lampeter, Paradise, and East & West Hempfield Townships. An internship with the Conservation District in Chester County got him hooked on stream projects then he worked for the State, a non-profit, and most recently doing construction in and around Philadelphia. He splits his free time exploring downtown Lancaster or searching for the next cliff diving spot.

**Christina Martin** is the Finance and Grants Coordinator for the Lancaster Clean Water Partners. She oversees the financial integrity, procedural standards, and compliance needs for successful projects and grants on behalf of the Partners and the organizations participating. She also is responsible for tracking partner contributions, project budgets, and filing required reports. After earning her Associate's degree from Central Penn College, Christina spent many years in administration, real estate, and as a small business owner. Born and raised in Lancaster County, she resides in Marietta with her two children and dog Rosie. When the weather is warm, you can find her spending time outside, soaking up the sun, fishing, kayaking, or going for walks. She loves all that the area has to offer, and is happy to make memories with her kids in the same places she did growing up.



*Christina Martin*



## Certification Celebrated

The Lancaster County Conservation District (LCCD) congratulates our three newest fully certified nutrient management plan reviewers; Brady Bosworth, Lauren Brodbar, and Emma Riebling. After becoming provisionally certified in 2023 by the State Conservation Committee, all three employees recently wrote a Nutrient Management Plan for a Volunteer Animal Operation (VAO) located throughout Lancaster County. Upon review and board approval of each of these plans, all three are now fully certified nutrient management plan public reviewers for the state of Pennsylvania!

This certification shows that these employees are well versed in laws and regulations regarding agriculture operations within the state, and they are also able to apply this knowledge, and help landowners and LCCD achieve our mission of promoting stewardship of natural resources for Lancaster County and beyond! We are proud to have employees at the District who are dedicated to the conservation of natural resources and excited to see how Brady, Lauren, and Emma can use this certification in the future!

*- Emma Riebling, Ag Conservation Technician*



## It's Not Just You

Preventing accelerated erosion and keeping sediment on a project site is one of the main focuses of the District's Erosion and Sedimentation (E&S) Department. In 2023, the LCCD processed a Chapter 102 permit that totaled 2563 acres of disturbed earth. Project size varies greatly. This acreage might be on a 100-acre industrial subdivision or a 1-acre hog barn. The actual amount of disturbed earth in Lancaster County is likely greater since those figures do not account for projects under an acre or sources outside of construction like stream bank erosion.

Does erosion and sediment really need to be regulated? It's just dirt. Does your project really matter that much? There's already sediment in the bottom of every stream anyway. A little more won't hurt, right? Many people may have these thoughts and questions when it comes to stormwater management and permitting.

The fact is that sediment is the single most common source of pollution in U.S. waters. Erosion at construction sites accounts for the majority of sediment that ends up in our waterways. The Environmental Protection Agency (EPA) estimates 70% of sediment pollution is caused by human activity and costs up to \$16 billion in environmental damages annually. Suspended particles make the water cloudy. This can block sunlight inhibiting aquatic plant growth and prevent animals from being able to locate food sources. Often these particles will settle on the bottom and can smother various organisms, larvae, and eggs and even clog gills and kill fish.

Environmental regulations, codes, and laws are in place to protect resources for all. No system will be perfect, but awareness and education are key to preventing as much sediment pollution as possible. So, while it may seem "just a little more sediment" escaping from a project site won't have a large impact, the reality is, that it's not just that site. It's the entirety of the 187 National Pollutant Discharge Elimination System (NPDES) permitted sites approved last year, the unpermitted sites, and all the other sources of erosion and sedimentation that cause environmental concerns and Lancaster County to consistently be one of the largest sediment polluters to the Chesapeake Bay. It's not just you. It's you, me, and everyone in the county, we all have a part to play in keeping common resources available to all.

- Shannon Erdman, Resource Conservationist



*Lack of E&S controls in the picture in the top left caused sediment to enter the waterway and created a significant amount of turbidity seen in the stream. Photo by Kristopher Gilham – DEP*



*A compost filter sock working and keeping sediment-laden runoff on-site. Photo by Alex Flurry - LCCD*



## Certifications in the E&S Department

Congrats to Adam Stern! Adam obtained two professional certifications in the last few months; the Certified Professional in Erosion and Sediment Control (CPESC) in April and the Certified Erosion, Sediment, and Stormwater Inspector (CESSWI) in July. These certifications are offered by EnviroCert International and are internationally recognized professional certifications in the stormwater community and regulatory agencies. Adam is the Program Manager of the Erosion and Sedimentation Department, he will have been with the Lancaster County Conservation District for 5 years this October.

*Adam Stern*





## Conservation District Plain Sect Outreach Program Update

Greg Heigel, District Ag Conservation Technician had a busy schedule with the Plain Sect community this summer. Again, he attended the Natural Resources Conservation Service (NRCS) Plain Sect training at Elizabethtown College. In addition, Lancaster County was home to this year's Horse Progress Days in Gordonville. Greg attended the event for two days in July, where he hosted a Conservation District display. At the Agriculture Conservation Assistance Program (ACAP) Conference in State College, Greg presented about Plain Sect beliefs, and his experience working with both Amish and Mennonites. He attended two events in Caernarvon Township; a watershed meeting with the Chesapeake Bay Foundation and an evening stream walk in conjunction with a buffer meeting. At a Lancaster Leaf Tobacco meeting and Gap Tobacco meeting, Greg connected with Plain Sect farmers about planting no-till tobacco. Lastly, Greg hosted a Conservation District display at Family Days on the Farm, with 3,000-4,000 attendees. He spoke with everyone from children to adults about Erosion and Sedimentation Planning, manure management, riparian buffers, and good agricultural practices.

- Lauren Brodbar, Ag Conservation Technician



*Greg Heigel hosted a Conservation District display at Horse Progress Days in July. The event was well attended with many demonstrations and displays like this soil pit. Photo provided by Greg Heigel – LCCD.*

## Learning Never Stops

29 Teachers proved that learning never stops when you're a teacher by completing the Lancaster Outdoor Learning Network Initiative (OLNI) this summer. Three days in June teachers stepped into the field, the forest, and down into a stream to experience learning about a Meaningful Watershed Educational Experience (MWEE). The goal of the program is that each teacher who participates will develop a MWEE for their classroom and expand a student's understanding of the watersheds in which they live and the positive impact they can have on water quality.

A leadership team of several cooperating agencies and several full-time public school teachers developed the agenda and provided the instruction for the program. Partners on the Leadership Team included: Lancaster County Conservation District, Stroud Water Research, PA DCNR, Penn State Extension, Lancaster County Environmental Center, Lancaster Conservancy, Ephrata Area School District, Conestoga Valley School District, Warwick School District, and Lampeter-Strasburg School District. The Arconic Foundation proudly funded the program with additional financial support from the Pennsylvania Department of Education, Lancaster Ag Council, Lancaster Sierra Club, and CNH Industrial.



*The fifth cohort group of teachers participating in Lancaster OLNI.*

- Sallie Gregory, Education, and Operations Coordinator



## PA Agricultural Conservation Assistance Program

The projects funded under The Pennsylvania Agricultural Conservation Assistance Program (ACAP) have continued to move along this year. The three year award of 15.6 million dollars originally allocated to the Lancaster County Conservation District was entirely dispersed in May 2024 roughly a year ahead of schedule. Of the many projects that were approved and allocated, seven projects have been completed; while several others have begun construction within Lancaster County. Now that crops are being harvested this fall many of the designated farms have started installation of grassed waterways, terraces, diversions, and many more best management practices.

Due to the original ACAP funding being fully allocated LCCD is not currently accepting applications. However, the state legislature did approve additional funding in the state budget for the ACAP Program. More information regarding this program will be released once funding is awarded to the District. Learn more at the Agriculture tab at [www.lancasterconservation.org](http://www.lancasterconservation.org).

- Emma Riebling, Ag Conservation Technician



Lincoln Gansner job shadowing conservation career.

## The new generation of E&S Resource Conservationists

This past spring Lincoln Gansner, son of E&S Resource Conservationist Shannon Erdman, had an opportunity to shadow his mom for a day through a career event for Marticville Middle School. 8th grade students were encouraged to spend a day with someone in a job that interested them for a potential career path. Lincoln accompanied his mom on several site inspections as she explained what an Erosion and Sedimentation technician's day typically looked like. While he is not certain what occupation he would like to go into, environmental and conservation careers do interest him. When asked about his experience he stated, "Even though my mom talks about work, I didn't really understand. Now when I'm riding in the car I notice construction sites more. I look for [compost filter] socks and dirt on the road. I'm glad I had the chance to experience a job I may have not considered before."

- Shannon Erdman

## A Picture is Worth It

We've learned a picture is worth an award and a job well done. Kudos to Noelle Cudney, the District's social media coordinator. She worked with several District staff members to create Instagram posts in April 2024. The Pennsylvania Association of Conservation Districts challenged all of the state's Conservation District to design staff-focused Instagram posts. The county with the most likes during Conservation Week was recognized at the Joint Annual Conference at State College in July. Lancaster County Conservation District received the first annual award.



## BMP Verification

As the Lancaster County Conservation District grows and learns, there is always room to reflect on how we help farmers protect their resources and our local streams. While larger regulated Act 38 farms are reviewed annually, many smaller unregulated farms have aging best management practices (BMPs) and conservation plans that are sometimes not reviewed or updated for years afterward.

In the eyes of the Chesapeake Bay Model, a tool for stakeholders to estimate the amount of nutrients entering the Chesapeake Bay, a BMP that has aged to meet its “lifespan” will drop from the model and is assumed to no longer be functional until it is reinspected to prove otherwise. A pilot program was developed by the Conservation District called BMP Verification to address this concern as a form of quality assurance in 2023. By reviewing conservation plans with farmers and inspecting the



conservation practices, we can renew this lifespan so it can continue to receive credit within the modeling tool, and at the same time connect farmers with resources to address any natural resource needs or concerns. We recognize that to serve Lancaster County best, we must continue learning and evolving to meet the needs of farmers and our streams.

- Caitlyn Tynes, BMP Verification Coordinator

*Waterway – a functioning best management practice verified in the field*

## Watershed Program Reflections

Summer is over and students are back in school for the year. As local students begin to open their minds to a year of learning, the Watershed Program reflects on what lessons we have learned from our summer season and how we can apply new knowledge to work this fall.

In May 2024, the Watershed Program removed a small dam in Leacock Township. The Conservation District had approached the Leacock farmer in 2021 with hopes of restoring the streambanks on his property. The young farmer was interested in learning how to improve his stream and how a dam no longer used for his grazing operation could be removed. He understood that restoring his stream would positively impact other streams within the Muddy Creek watershed and all the watersheds downstream.

The project involved removing an old concrete crossing acting as a dam, removing an old mill dam, and installing riffles to stabilize the streambed and provide habitat for macroinvertebrates. The project reconnected aquatic habitats and restored the stream’s natural flow.

The Watershed Program removed dams in the past, but it has been many years since we took on a dam removal project. We navigated permitting requirements, cost increases, and dam removal practices. This project reinforced the importance of partnering and working as a team to get a great project done. It also illustrated the value of aquatic organism passage and stream health

To complete the project, 220 native trees and shrubs were planted to create a buffer that protects the stream. Conestoga Valley High School students volunteered with their teacher to plant all of the trees. This gave students hands-on experience in the field and taught them the importance of a riparian buffer for stream health. The Conservation District is always looking for volunteer groups to assist with streamside buffer plantings. If you and your group are interested, reach out to the Watershed Program!

[www.lancasterwatersheds.org](http://www.lancasterwatersheds.org)

- Grace Chamberlain, Assistant Watershed Specialist

*Before*



*After*



## Lancaster County Dirt and Gravel/Low Volume Road Program

The Lancaster County Dirt and Gravel/Low Volume Road Program has several projects at or near completion now that summer is wrapped up, resulting in nearly a quarter million dollars working towards better roads and cleaner streams in the county. The program casts a wide net, allowing for funding to support roads in the middle of Lancaster City and more rural areas like Rapho Township.

Some projects, like those in the city, focus on keeping stormwater out of the Combined Sewer Overflow system (CSO). Work on E. Mifflin Street included adding 'Green Infrastructure' (GI) like infiltration trenches. These trenches catch the first flush of pollutants and sediment during storm events, allowing the water to percolate into the ground rather than getting dumped in the Conestoga River.

Other projects, like Whispering Pine Road in Rapho Township, focus on achieving a 'sheet flow' of stormwater by reshaping and resurfacing the road. This spreads the stormwater out over a large area rather than allowing it to concentrate energy in a ditch and cause erosion and sedimentation. Additional funding will be available for projects into 2025!

Visit <https://lancasterconservation.org/road-programs/> for more information.

- Tyler Keefer, Watershed Resource Specialist

## Learning about Water Quality through Citizen Science

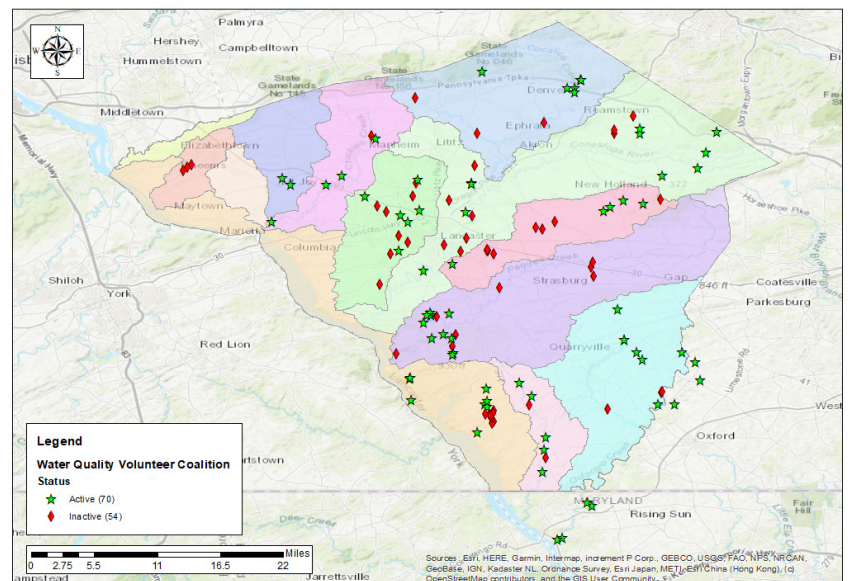
The Lancaster County Conservation District's Water Quality Volunteer Coalition has collected valuable water quality data for over 20 years. Since 2001, almost 125 locations have been sampled. Currently, there are about 74 locations with active volunteers. With nearly 5,500 total sampling events throughout the years, dedicated volunteers are instrumental in identifying water quality trends within the county's waterways. This year, the program co-leads Noelle Cudney and Amanda Goldsmith trained almost 20 new volunteers and added 14 new sampling locations throughout Lancaster County. Numerous large group trainings were conducted to engage new and existing volunteers in water quality monitoring efforts.

The Water Quality Volunteer Coalition (WQVC) involves residents interested in the water quality of their local waterways. Participants in the program learn why sampling water at regular intervals is important and what their results can mean. They are taught how to take stream flow measurements, measure water chemistry using various calibration instruments, assess macroinvertebrate habitat, and survey macroinvertebrates within the stream. Chemical parameters include dissolved oxygen, nitrogen, phosphorus, pH, and conductivity to name a few. Chemical assessments are performed once a month, with biological surveys encouraged to be done twice a year, and habitat assessments are conducted once a year. In addition to sampling, volunteers can collaborate, meet new people, and attend other volunteer/organization events. With the newfound expertise and connections, the volunteers become local experts in water quality and help spread awareness to others in their communities.

Data collected from the WQVC volunteers are publicly available for anyone to view at the Lancaster Watersheds webpage: [www.lancasterwatersheds.org/volunteer](http://www.lancasterwatersheds.org/volunteer). As the program continues, the data can be useful for educational, recreational, and informative purposes. With the ever-increasing awareness of Lancaster's water quality affecting the Chesapeake Bay, monitoring stream health has never been more important than it is now. For more information contact Amanda Goldsmith at 717-299-5361 x 5 or visit [www.lancasterconservation.org](http://www.lancasterconservation.org)

- Noelle Cudney, Data Coordinator

LANCASTER COUNTY CONSERVATION DISTRICT Lancaster County Volunteer Water Sampling Locations



**A map displaying sampling locations and Lancaster County watersheds. The sites and sampling status are subject to change. This map was updated August 2024.**



## Clean Water Partners

*“Unity is strength; collaboration is power.” - American poet, Mattie Stepanek*

One of the greatest strengths of Lancaster’s collaborative, clean water network is the ability to combine resources to help each other meet our shared vision of Clean and Clear by 2040. This can take the form of many partner organizations working together on a common project.

A great example is the community-driven project on a small tributary in the area of Hammertown Road. The Lancaster County Conservation District was one of the lead partner organizations during this 15-year project, which is a remarkable story of communication, trust among neighbors, and collaboration between multiple conservation organizations, municipalities, and funders. The project’s vision emphasizes the need for property owners to install at least a 35-foot forested buffer along all streams. While stream health is part of the plan, the primary focus is on agricultural practices that promise high nitrogen reductions. These practices aim to help landowners achieve their farm goals, improve animal and soil health, realize long-term cost savings, and most importantly, ensure clean water. Organizations like Lancaster County Conservation District, TeamAg, Chesapeake Bay Foundation, Penn State, the township’s Agricultural Advisory Committee led by Gary Van Dyke, Stroud Water Research Center, township supervisors, and Lancaster Clean Water Partners play vital roles in supporting the landowners.

“The landowners in the Hammertown Rd, Narvon area are an exceptional group to work with, based on years of interaction with the NRCS, the Conservation District, the Chesapeake Bay Foundation, Penn State, and a number of private consultants, with trust and cooperation also based on the area church leader’s views,” said Greg Heigel, Lancaster County Conservation District Plain Sect Outreach Coordinator. “This project involved over 22 landowners with diverse properties, including residential, forested, and farming parcels, within an 896-acre watershed.”

The Hammertown Road project was funded, in part, by a Pennsylvania Department of Environmental Protection Growing Greener grant.

### Podcast

The written word is one way to tell this story of clean water work. Using voices in text and audio can give community members access to another way to experience a collaborative story. Other examples of collaboration include The Megaphone Effect, wherein partners collectively use various communication platforms, like social media, newsletters, and even podcasts to boost the volume of a specific shared message. In January 2024, Lancaster Clean Water Partners launched Clean Water Conversations this year, a podcast to serve as a voice to tell the stories of the boots-on-the-ground clean water work organizations are doing. A departure from standard conservation podcasts this podcast uses humor in the form of icebreakers, trivia, and a rule against unexplained acronyms to engage guests and conservation enthusiasts in the general public. Season 2 of the podcast began in September and the podcast has already garnered over 1,000 downloads. It can be found at <https://lancastercleanwaterpartners.com/podcast-2/> as well as Spotify, iHeartRadio and wherever you get your podcasts.

*- Kenn Bennett, Communications Coordinator*

