

Bucks County Conservation District



Annual Report 2021

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Front page image: *The 2021 Lake
Towhee Water Chestnut Pull*

Bucks County Conservation District

2021 Board of Directors

Jeffery Garton, Chairman

David Wolfinger, Vice Chairman

John Frederick, Secretary

Jeffrey A. Vey, Treasurer

Robert J. Harvie, Jr., Commissioner Director

Dwight L. Ely, Farmer Director

Thomas Trycieki, Farmer Director

Tom left the Board in 2021; BCCD wishes to thank Tom for his years of service!

Scott Smith, Farmer Director

Scott acted as both Farmer and Associate Director in 2021


Associate Directors:

Robert Loughery

Broc Sandelin

Peter Stampfl

Evan Stone



The BCCD is a legal subdivision of state government and is administered by a Board of Directors composed of four farmer members, two public members, and one county commissioner member, all of whom serve without pay. The Directors work with all individuals, organizations, and agencies interested in soil and water conservation, land use planning, watershed protection, and flood prevention in the broadest sense to secure their assistance and support in planning and carrying out District programs.

2021 Annual Report – Manager’s Message

The annual exercise of reviewing the past year and providing my thoughts about the state of the BCCD can be both intimidating and inspiring. Intimidating because summarizing an entire year in a few short paragraphs is difficult. Add in the desire to express something new, sincere, and interesting? Writer’s block seems all but impossible to avoid.

If I put aside that intimidation I am immediately filled with a charge of inspiration. Maybe not improving my writing skills, but certainly amplifying my desire to express my pride for the BCCD and everyone associated with this organization.

Without lingering too long on the fact that we have now suffered two years of working under the stress of the COVID-19 pandemic, I must admit that the BCCD was possibly more affected by COVID in 2021 than in 2020. Like many businesses, the BCCD experienced the Great Resignation with the loss of two senior staff and a bit of a stutter on our plans for expanding the Chapter 102 staff while we hired to replace the positions that were vacant. The BCCD hired 3 new staff members in 2021, and an additional 2 new staff in the early days of 2022. Currently, half of the BCCD staff has been with us for two years or less.

Throughout the extended hiring process, the BCCD Board of Directors and the staff showed consistent support and interest. Each new member of our team has been welcomed by all. I maintain the viewpoint that with each new voice, our experience is enriched. We are forced to adjust and grow to find a connection with the new. We have a natural break from the experiences in the past and a chance to create something unique and better suited for the future of the district. The change in tone within the office was immediate. I can practically watch the exciting uncertainty of the newly hired working to create their individual future, learning from those who came before, and modernizing our thinking in ways that are completely unpredictable.

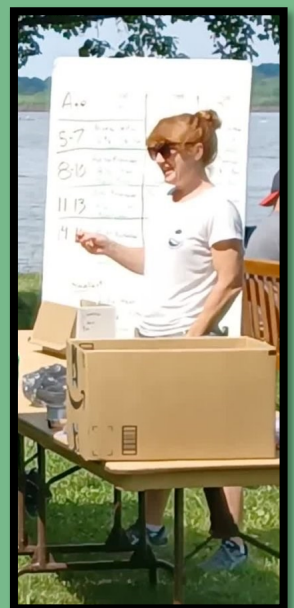
I’m proud to witness this new generation of BCCD find their way to success. I am inspired to see how quickly the existing staff has welcomed and accepted the new faces, voices, ideas, and perspectives. I am just a little intimidated by how quickly everything changes.

The number of proposals for new development and redevelopment within the county remains high. Even with additional staffing, the workload for each of us is intense. But, with the enthusiasm of our new members, I believe that the BCCD team will excel in our efforts to provide for the wise use of resources that belong to us all.

Sincerely,

Gretchen Schatschneider
District Manager

*At right: Gretchen at the annual
Father’s Day Fishing Derby*



2021 BCCD Staff

Gretchen Schatschneider, District Manager

Richard Krasselt, Environmental Protection Specialist

René Moyer, Chapter 102/NPDES Administrator

Susan Seykot, Asst. Chapter 102/NPDES Administrator

Marilyn Laurelli, Receptionist

Morgan Schuster, Lead DGLVR Administrator

Ryan Herstine, Agricultural Conservation Technician

Jason Maurer, Erosion Control Technician and Education Specialist

Tori Jones Long, Erosion Control Technician

Chris Cook, Erosion Control Technician

Amanda Sandor, Erosion Control Technician

Meghan Roghalus, Watershed Specialist

Rachel Onuska Agricultural Conservation Technician

Meghan and Rachel left BCCD in 2021 to pursue other opportunities; we thank them both for their years of service at BCCD!

Karen Ogden, Watershed Specialist

Karen started with BCCD at the end of 2021; we welcome her aboard!

At right: Jason, Tori, and Ryan assist volunteers in loading up a truck to safely dispose of invasive water chestnut during the 2021 Lake Towhee chestnut pull



2021 Financial Statement

Revenue:

Fees for Services	\$ 891,389
Grants	853,044
Contributions	1,333
Interest	3,338
Miscellaneous	669
Total Revenue	<u>\$ 1,749,772</u>

Expenses:

Building Maintenance	\$ 23,601
Capital Purchases	87,985
Computer	28,155
Dues and Subscriptions	6,447
Education Projects	2,215
Grants and Programs	389,745
Insurance	29,616
Interest Expense - New Bldg	3,738
Meetings and Seminars	1,857
Miscellaneous	6,139
Office Supplies	9,569
Payroll and Benefits	601,809
Payroll Taxes	42,241
Postage	6,041
Professional Fees	14,751
Publicity and Promotion	4,418
Taxes - Other	3,523
Travel	731
Utilities	22,968
Vehicles	10,204
Total Expenses	<u>\$ 1,295,750</u>

Excess of Revenues over Expenses	<u>\$ 454,022</u>
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Unaudited

Chapter 102/NPDES Program

Below is a summary table of BCCD's activities administering the Chapter 102/NPDES Program. Despite operations continuing through COVID-19 related challenges, BCCD actually reviewed more applications and performed more technical reviews than in 2021.

Unfortunately, with the continued need to practice social distancing and be mindful of COVID-19-related concerns, it remained difficult to conduct outreach events. We are hopeful we will soon be able to continue our outreach events as normal in future years.

<u>Program activity</u>	<u>Activity tallies</u>
Outreach events	24
Event participants	192
Technical assistance contacts	4,092
News releases	1
Technical plan reviews	1,006
Total project acres submitted	11,820
Total disturbed acres submitted	3,427
General NPDES permits issued	84
Notices of Termination acknowledged	51
Complaints received and inspected	64
New project sites inspected	107
Total inspections conducted	744

New Staff Spotlights

Amanda Sandor and Karen Ogden

Amanda Sandor—Amanda joined the Conservation District as an Erosion and Sedimentation Control Technician in October 2021. Raised in rural New Jersey, Amanda spent much of her childhood exploring the outdoors. She is a graduate of the Environmental Studies program at Allegheny College and has a passion for wildlife conservation. Amanda has worked in endangered wetland bird research and volunteered at Aark Wildlife Rehabilitation Center in Chalfont.

Amanda has been a resident of Bucks County since 2018 and became a Master Gardener through Penn State Extension in 2020. Outside of work, she enjoys hiking, reading, creating art and playing with her dog Odie. Amanda is excited to be a part of BCCD and continue learning about Chapter 102 as well as get involved in other projects.



Karen Ogden—Karen joined BCCD in December of 2021 as our new Watershed Specialist. Karen graduated from Salisbury University, majoring in Biology. She went on to receive a M.S. Biology - Coastal Zones from the University of West Florida. Karen's environmental work history includes Chesapeake Bay field data collection, various endeavors in environmental education, natural resource and protected species management for a Department of Defense installation, and consulting for environmental impact assessments. Check back to see Karen hard at work in future pages for BCCD's annual reports!

Hazardous Algae Bloom Response Team



HABs Training— On June 6th, 2021 BCCD participated in a field training event at Lake Galena, Peace Valley Park boat launch, learning data collection protocol and monitoring/assessment methodology first hand. The photo above depicts DEP Water Program Specialist Erika Bendick training BCCD E&S Control Technician Chris Cook on transect (composite) sampling methodology.



The photo above displays a Hazardous Algal Bloom site observed and sampled in Bucks County by BCCD staff.

With a growing frequency of hazardous algae blooms (HABs) observed in Pennsylvania, the state Department of Environmental Protection (DEP) has recently established a HABs response system to collect data in areas of concern. In support of their goal to ensure public safety in waters of the Commonwealth and mitigate public exposure to HABs, the Bucks County Conservation District (BCCD) along with other CCDs and DEP program staff have joined the state department's response team efforts.

From general education and outreach to field data collection and sampling, the BCCD hopes to have a beneficial impact on water quality and safety in Bucks County. While BCCD involvement with this program only began in June 2021, the District has already responded to two separate sites of concern. Currently, the BCCD HABs response team includes Jason Maurer, Gretchen Schatschneider, and Chris Cook. However, with additional training opportunities planned for 2022, BCCD hopes to expand our ability to assist with sampling.



The image above is an educational warning poster used to inform waterbody visitors that HABs may be present at the site.

Spotted Lantern Fly Committee

As a District located within the Spotted Lanternfly (SLF) quarantine zone established by the PA Department of Agriculture (PDA), the Bucks County Conservation District (BCCD) takes pride in supporting the efforts of the Commonwealth of Pennsylvania State Conservation Commission (SCC) and PDA to mitigate the negative impacts of the invasive SLF across the state.

2021 is the third consecutive year that the BCCD has taken part in this pilot grant program funded by USDA and Pennsylvania Department of Agriculture and administered by the State Conservation Commission to counties within the spotted lanternfly (SLF) quarantine zone. This year, PDA's task delegation for CCDs has shifted from coordinating contractual treatment of tree of heaven (*Ailanthus altissima*), the SLF preferred host plant, on private and public land, to a focus on general outreach and education. To meet this request, BCCD staff have dedicated time towards addressing county level SLF inquiries, distributing education material to our social media audience and office visitors, and holding subsidized SLF Circle trap distribution events for the Bucks County community.

Circle traps have become the preferred method to collect spotted lanternfly nymphs and adults for many conservation districts, as they have drastically reduced the frequency of negative wildlife interactions, such as trapping non-target species. In addition, the ability of the circle traps to be reused design as well as ease of maintenance also make them preferable to the previously recommended sticky bands.

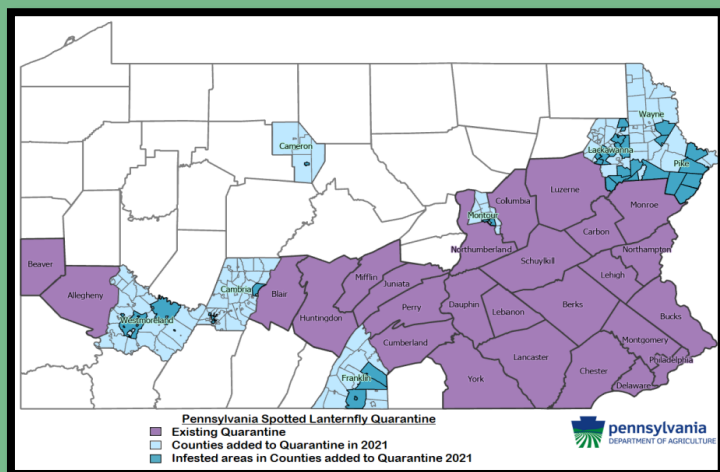


Image above displays counties of PA in the quarantine zone, as defined by the Pennsylvania Department of Agriculture.



The above photo depicts a Spotted Lanternfly circle trap.

This past spring, the distribution of the remaining 60+ circle traps out of the 200 traps purchased for the 2020 SLF program's trap handout was completed by Meghan Rogalus, Gretchen Schatschneider, and Chris Cook. Last fall, Chris continued this effort by obtaining an additional 100 circle traps for the 2021 program. A circle trap handout will be held at the BCCD office in the Spring of 2022 prior to the hatch of SLF juveniles.

The BCCD's distribution efforts will be focused within municipalities that meet priority control area characteristics as defined by the Pennsylvania Department of Agriculture. These areas include municipalities with many transportation areas such as frequented main roadways, railways, and airports.



Photo above depicts the adult Spotted Lanternfly, *Lycorma delicatula*.

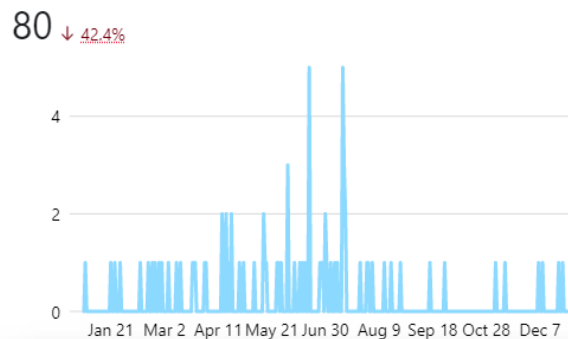
Social Media Highlights

In an effort to provide the Bucks County community with the latest information on BCCD's organizational updates and events, we have had an active social media presence on Facebook, Instagram, and YouTube. Content has included information on local pollution concerns and human health implications, volunteer opportunities, and educational material on natural resource conservation. On average, BCCD shares around 6 or more posts a week on one or more of the mentioned platforms.

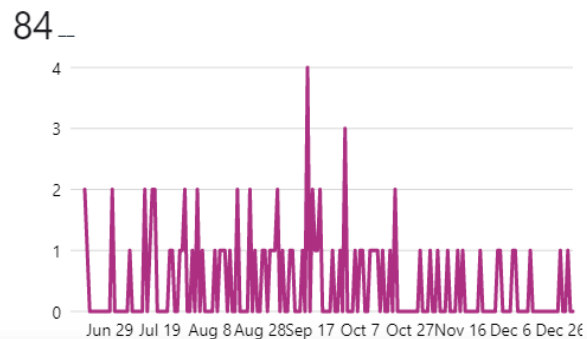
The graphs below highlight the percent average increase or decrease in reach (the amount of people that see a post), like/follow (the amount of engagement the post/page receives,) and profile visit (the amount of individuals that navigate through the page) for BCCD's Facebook and Instagram pages for 2021. Notably, the amount of BCCD's reach on both Instagram and Facebook has increased, suggesting that as the year progressed, more individuals were interacting with BCCD's content.

New likes and followers

New Facebook Page Likes ⓘ

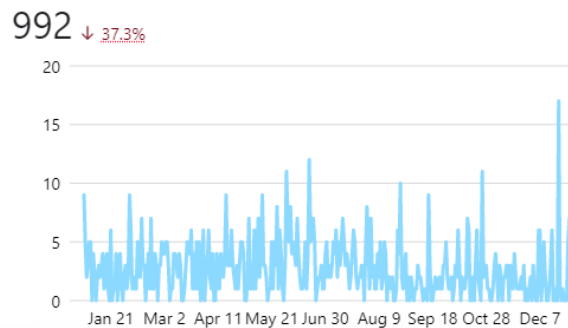


New Instagram Followers ⓘ

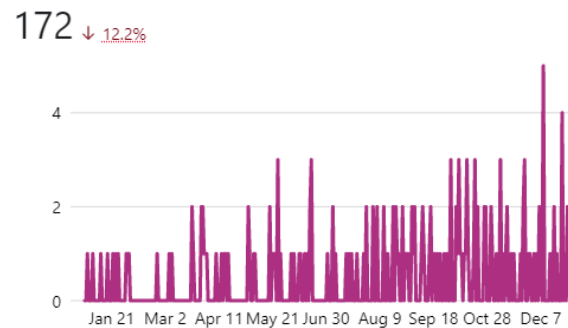


Page and profile visits

Facebook Page Visits ⓘ



Instagram Profile Visits ⓘ

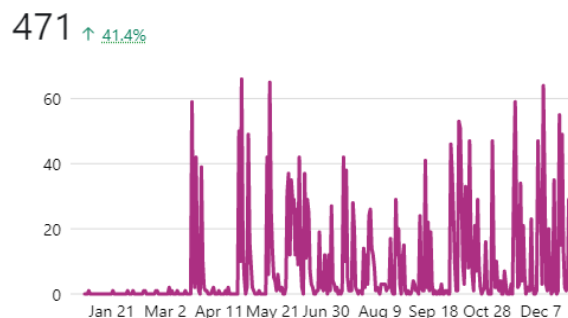


Reach

Facebook Page Reach ⓘ

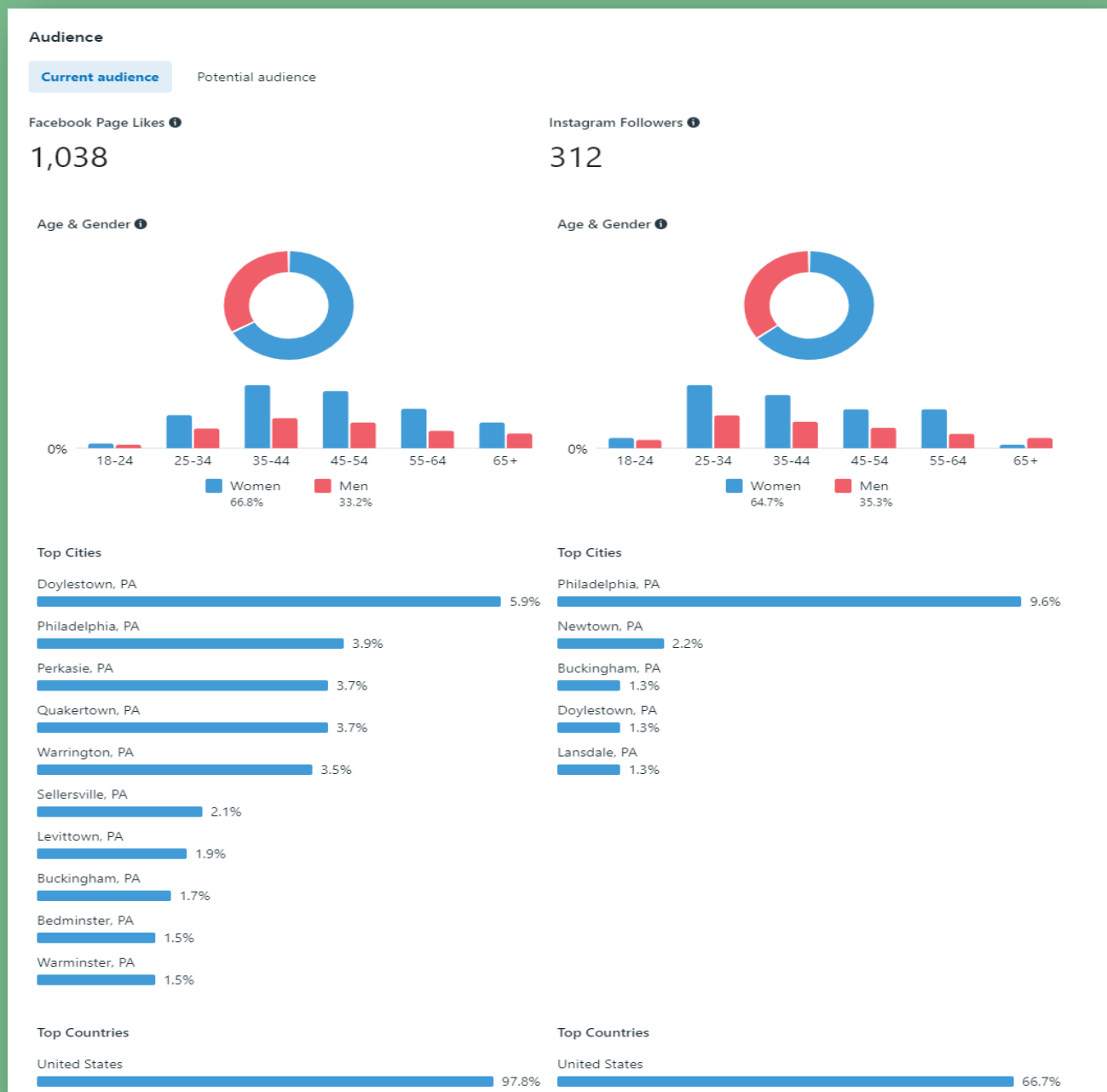


Instagram Reach ⓘ



Social Media Highlights continued

The graphs below display BCCD's social media platform audience. Notably, there is a greater amount of women following both pages than men and there is a younger audience following the BCCD Instagram page than the Facebook page. Further, several large municipalities within the county have not been included as top cities reached, such as Northampton Township, which may suggest a need to further engage with specific municipal social media accounts when possible. Currently, Chris Cook is working to improve the "top cities reached" category by engaging more with county-specific event pages, blogs, news platforms, and nature centers. Additional considerations will be made in an effort to increase the overall amount of page likes on Facebook and follower amounts on Instagram to connect with a larger portion of the county population.



Dirt & Gravel/Low Volume Roads Program 2021

Cleaner Streams, Better Roads

PA's Dirt Gravel and Low Volume Roads (DGLVR) Program provides grant funding to local road-owning entities for road and environmental improvements on unpaved and low-volume paved roads.

This year, Bucks County received:

-\$100,000.00 for Dirt & Gravel roads

-\$202,920.00 for Low Volume roads

Dirt & Gravel Road Projects:

School Road, Springfield Township: A new contract for \$98,370.00 was signed with Springfield Township for improvements along School Road. There will be several cross pipes and road fill added to help correct the drainage issues along this road. This road has a direct drainage into Haycock Creek so it has high potential to help the local watershed once finished. The ditches will also be reshaped and the road will be overlaid with driving surface aggregate.

Dogwood Lane culvert replacement, Durham Township: This project took many years and was finally closed out and finished in 2021. A grant for \$150,000 helped replace a culvert that crosses Cooks Creek that was damaged in previous stormwater. Working with the DGLVR program and Trout Unlimited, riffles and crests were built inside the structure to help create good habitat for aquatic organisms and also prevent more erosion downstream.



At left: the finished product of the Dogwood Lane culvert replacement project

Low Volume Road projects

Cooks Creek Road, Springfield Township: This contract was signed for \$5,952.00 and proposed cross pipes to be added throughout the road and some drainage work to be completed at the intersection with Route 412. This road runs directly next to Cooks Creek and this project will help stop sediment from traveling down the roadway and into the stream.

Peppermint Road, Springfield Township: Peppermint Road project was contracted for \$4,111.20 and completed in 2021. This helped the Township replace an existing cross pipe that had failed and install new headwalls and endwalls. This pipe is very important to keep the water off this road and stay in the ditches where it flows downslope and into a waterway.

Rosenberger Road Bridge replacement, Milford Township: Rosenberger Road was the first of its kind for Bucks County DGLVR program. The previous bridge was failing and ended up being shut down for safety concerns. A Contech prefabricated bridge was constructed in its place using a contract grant total of \$330,000.00. This was a large contract amount and a huge undertaking for the Township public works crew to complete themselves. This project has not yet been closed out, but the bridge is completed and greatly improves the waterway of Unami Creek.



Above: one section of the Rosenberger Road bridge being set by crane during construction 2021.

Dirt & Gravel/Low Volume Roads Program Continued



Above: photo of the completed Rosenberger Bridge

Bucks County Conservation District is always looking for more applicants and eligible projects within the County to work towards the DGLVR program's goal of better roads and cleaner streams. To be eligible for DGLVR program funding, a representative from the local entity applying must attend an environmentally sensitive management training (ESM) once every five years. For more information on the DGLVR program, possible sites to be funded in the future, or the required ESM training, please contact Bucks County Conservation District's Dirt & Gravel/Low Volume Road Administrator Morgan Schuster at mschuster@bucksccd.org.

Agricultural Conservation

The Bucks County Conservation District's (BCCD) agricultural conservation program had a busy year in 2021! Lots of manure management plans, conservation plans, designs, and construction checks for addressing various manure, resource, and erosion concerns on agricultural lands were completed over the past year.

Act 38 Nutrient Management

BCCD administers Pennsylvania's Act 38 Nutrient Management program. Farms with an annualized animal density of 2,000lbs per acre or more are classified as Concentrated Animal Operations (CAOs) and are required to have a current nutrient management plan. Bucks County has 13 CAOs, all of which are equine farms.

Photo to the right: a milkhouse wastewater collection system on a dairy goat farm. Once collected, the wastewater will be pumped to a designated Vegetated Treatment Area to treat and filter out nutrients from the wastewater.



Outreach/Education

BCCD continued its agricultural conservation outreach efforts in 2021, though in-person farmer meetings were difficult due to COVID-19. BCCD's Agricultural Conservation Technicians (ACT), along with staff from Montgomery County Conservation District and the Natural Resource Conservation Service, presented at Penn State Extension's annual pesticide update meetings. We discussed regulations relating to manure management, agricultural erosion & sedimentation, and what defines a farm as being considered a CAO or CAFO. We also discussed common challenges that farms typically face regarding conservation and tools to combat those challenges. Finally, we provided various cost-assistance programs that are available to help establish conservation practices. BCCD also attended a field day hosted by a local Pioneer Seeds representative to provide literature and spoke to farmers one-on-one about conservation. BCCD's ACTs have also attended several pieces of training and workshops over the last year to better serve the farmers of Bucks County.

What Farm Services Do Conservation Districts Offer?



Ryan Herstine
Agricultural Conservation Technician
Bucks County Conservation District



Abigail Reiter
Agricultural Conservation Specialist
Montgomery County Conservation District

Above: Penn State Extension Pesticide Update Meeting

Agricultural Conservation

BCCD continued its efforts in conservation planning and implementation. BCCD received a grant from DEP's Growing Greener program for BMP implementation on two CAO equine farms. We are currently in the process of implementing these practices!

In addition to the Growing Greener grant, BCCD's ACT is partnered with the NRCS to assist farmers with technical and financial assistance to plan, design, and implement BMPs on their farms. Currently, BCCD is assisting about 20 different farms who are voluntarily seeking assistance in planning and implementing BMPs, whether the BMPs are structural (a few examples include grass waterways, terraces, animal heavy use area protection, and manure storage) or non-structural (no-till, cover crops, prescribed grazing, and contour farming.)

BCCD has also assisted several farms in developing manure management plans for their operations over the past year.

Agricultural Conservation Projects from 2021



Photo to the left: an Equine Heavy Use area, installed to protect pastures that are unfit for grazing.

Photo to the right: a Water & Sediment Control basin and downslope grass waterway. This was installed to eliminate accelerated soil erosion that was occurring in the crop field.



BCCD Watershed Programs and Progress

In 2021, BCCD became a partner in The Keystone 10 Million Trees Partnership. This Partnership is a collaborative of governmental agencies, conservation organizations, outdoor enthusiasts, businesses, and citizens committed to improving Pennsylvania's economic, community, and natural environments. The effort is coordinated by the Chesapeake Bay Foundation. The ambitious goal to plant ten million trees can only be met through a large network of participants including BCCD.

In October, BCCD joined the Bucks County's Master Watershed Stewards to plant 100 native trees and shrubs across three neighboring properties in Upper Makefield Township. The event was supported by State Senator Steve Santarsiero and Bucks County Commissioner, Bob Harvie.



Above: Volunteers planting native trees in Upper Makefield Township

Lake Towhee Paddle with a Purpose

2021 marked the 13th year of the volunteer effort “Paddling with a Purpose”. This July event was an important feature of a multi-year Growing Greener Grant project to improve water quality, fish and wildlife habitat, and recreational uses of Lake Towhee. An integrated approach to the removal of the invasive, non-native aquatic plant water chestnut (*Trapa natans*) involved growing season herbicide applications and manual, hand-pulling by dedicated volunteers. The 2021 volunteer group included over 60 individuals, contributing a combined 325 hours of work to remove an estimated 26 cubic yards, or about 2 dump truckloads of the nuisance plant. In 2021, BCCD secured a grant from the Pennsylvania Lake Management Society (PALMS) to continue water chestnut treatment through 2022.



At left: BCCD staff helping to set up the 2021 Paddle with a Purpose event at Lake Towhee

Front cover: thanks to the efforts of BCCD and program volunteers, there is much more open, recreationally enjoyable water on Lake Towhee than in previous years

Educational Programs

2021 Envirothon Competition

The Envirothon was another of those programs affected by COVID-19 in 2021. An in-person event was not possible, but thanks to PA Envirothon staff, an online challenge option was again provided for schools and students who wanted to participate.

The 2021 issue for Envirothon was “Water Resources Management: Local Control and Local Solutions.” Congratulations to the winning team from Quakertown Community High School, who scored strongly across all subject categories and proceeded to place in 18th in the state competition.

It bears repeating from last year—we very much appreciate and value all of the time and effort put in by PA Envirothon in providing the online testing option, as well as the commitment and flexibility demonstrated by participants in navigating an altered format. We all look forward to returning to an in-person event in future years!



BCCD Director Memorial Scholarship for Continuing Education

Bucks County Conservation District provides an educational scholarship to Bucks County residents who are continuing their education in environmental science or related fields. In 2021, Ashlin Brooks, former intern at the Bucks County Conservation District, was awarded the BCCD Memorial Scholarship to aid her ongoing study at Penn State University.



BCCD intern Ashlin Brooks and watershed specialist Meghan Rogalus take samples during Poquessing monitoring in November 2020

Bucks County Conservation District Mission:



**TO PROVIDE FOR THE WISE USE, MANAGEMENT, AND
DEVELOPMENT OF THE COUNTY'S NATURAL RESOURCES**

Bucks County Conservation District

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