



# Beaver Tales

Winter 2023

Beaver County Conservation District

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### Mission Statement

The Beaver County Conservation District provides leadership in natural resource management through outreach, education, and technical assistance.

# Stewardship Forest

The Beaver County Conservation District has been certified as a Stewardship Forest. Jessica Pierce, DCNR Service forester recently presented the district with a sign noting this achievement. The Forest Stewardship Program is designed to promote wise use and sustained benefits of forest resources.

To obtain this certification the district developed a Forest Management Plan to guide management of the forest resources at the Environmental Center grounds. The plan has four key goals which include:

1. Restoration of Native Ecosystems-Forest Health
2. Increase Opportunities for Outdoor Environmental Education
3. Improve Wildlife Habitat
4. Encourage Passive Recreation

This plan details the major forest habitat types and how they will be managed over the next 10 years. This plan complements the existing land management and integrated pest management plans previously developed for the environmental center grounds.

The forests and wetlands at the district environmental center grounds are open to the public for hiking, bird watching, and a host of other outdoor pursuits. Come visit the grounds and enjoy the forest!



Jessica Pierce, DCNR Service Forester for Beaver County, presents a Forest Stewardship sign to District representatives Hannah Ward and Richard Voytko.

**Board of Directors**

Mike Price, Chairman  
Richard Smith, Vice Chairman  
Jack Manning, County Commissioner  
Shannon Ritmiller, Secretary/Treasurer  
Robert Guidice, Farmer Director  
Chip McCoy, Farmer Director  
Dom D'Egidio Farmer Director

**Associate Directors**

Alex Schreiber  
Fran Taylor

**District Staff**

Jeff Pflug, District Manager  
Hannah Ward, Assistant Manager  
Jen Linebaugh, 102/105 Group Lead  
Richard Voytko, Agricultural Conservationist  
Lindsey Shepler, Environmental Educator/Watershed Specialist  
Phoebe Prince, West Nile Virus Technician  
Rachel Galloway, Resource Conservationist  
Sarah Barnett, BCALPB Admin/Resource Conservationist

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# “What’s Out there? Wednesday”

Check out our latest YouTube video series called “What’s Out There? Wednesday” where every week we take a video tour of pictures and videos captured by our trail camera of just what is out there in our wetland when no



11/2/2023 - 11/8/2023 What's Out There  
Wednesday at BCCD

## The Phosphorus Index

We also have our latest YouTube video out for Nutrient Management Plan Writers called “The Phosphorus Index.” Our YouTube Channel has many informational videos like this for all who are interested in learning more.



# Envirothon 2024

Envirothon is an annual competition which tests the knowledge of high school students on various environmental topics. Counties in Pennsylvania hold local competitions in early-to-mid spring and then send their winning teams to the state level competition in May. The winners of the state competition then move on to the international Envirothon! Topics of the competition include aquatics, wildlife, soils, forestry, and a current issue. Current issues are chosen each year by the state or province which is hosting the international competition. Envirothon will be happening again in Beaver County on April 10, 2024 at the Lodge at Brady's Run. We are hoping for a turn out of more districts than ever this year to bring teams to participate.

County Conservation Districts host their local Envirothon, but hosting goes beyond holding the competition itself. We also provide supplemental study resources which teachers/Envirothon coaches can borrow, and we will hold review sessions of materials if there is interest from the participating schools. Downloadable study materials can be found on the PA Envirothon website under the station training header: <https://www.envirothonpa.org/> The 2024 current issue will be "Renewable Energy for a Sustainable Future," but the materials tab on the PA Envirothon has not yet been updated as of the writing of this article.

Announcement of the 2024 Beaver County Envirothon and team registration forms will be sent to local schools and/or Envirothon coaches in December. Anyone with questions about the competition or available study materials can contact Lindsey Shepler, Environmental Educator, at [lindsey.shepler@bccdpa.us](mailto:lindsey.shepler@bccdpa.us)

The screenshot shows the homepage of the Pennsylvania Envirothon website. At the top, there is a navigation bar with links for HOME, REGISTRATION, STATION TRAINING, MEDIA, JOIN & GIVE, PARTNERS, and CONTACT US. A search bar is located in the top right corner. The main content area features a large banner for the Pennsylvania Envirothon, which includes the text: "PENNSYLVANIA ENVIROTHON LAUNCHES FREE ENVIRONMENTAL EDUCATION APP WITH DIGITAL-FIRST SPONSOR PSECU". Below this banner, there is a section titled "ABOUT US" with a paragraph describing the program. To the right of the main content, there is a red sidebar with a "SUBSCRIBE TO OUR NEWSLETTER" form, which includes fields for First Name, Last Name, and Email Address, and a "Subscribe Now" button. Below the newsletter form, there is a blue section titled "UPCOMING EVENTS" with the text "NOVEMBER, 2021".



## Mosquitos in Winter

Most people only think of mosquitoes during the summer, when they are buzzing around and biting us, but mosquitoes are still around even in the winter in Beaver County. As the weather gets colder, mosquitoes become less active. They travel shorter distances; female mosquitoes take fewer blood meals and in turn reproduce less, but that does mean they die off completely during the winter months. Mosquitoes are incredibly adaptable and use several means to survive the cold winter temperatures in Pennsylvania. Most male mosquitoes do not survive the winter. The male mosquitoes do not bite us, they only feed on nectar and only have a lifespan of 10-15 days. Female mosquitoes are the ones that bite us, they need to take a blood meal to lay their eggs. As winter approaches, female mosquitoes can take blood meals for nourishment to survive over winter, but they can also survive on sugars from nectar.

There are many ways for mosquitoes to survive the cold winter months. Some female mosquitoes can survive as adults and hide in cryptic, protected areas. They can be found in manmade structures like basements, garages, wells, and cisterns. They can also overwinter in crevices and tree holes in nature. Mosquitoes that can overwinter as adults can do so by a process called “diapause”, which is similar to suspended animation. Diapause in mosquitoes is triggered by several different factors such as, length of daylight, temperature, and even the diet of the mosquito. Mosquitoes can survive temperatures below freezing (32 degrees Fahrenheit) but is more likely that once we have a “killing frost” (temperatures below freezing) that it reduces mosquito activity and reproduction until temperatures return to above 50 degrees Fahrenheit consistently the next spring season. Some mosquitoes are also able to diapause by producing a protein that prevents their cells from crystallizing during long freezing temperatures of winter. These mosquitoes find cryptic places like wells, basements, and garages and cling to the walls and ceilings. They use a technique referred to as a “hibernation squat” that was defined by J. Turner Brakeley in 1901 where they fold onto their legs and “squat” to stay close to the surface and protected during diapause.

There are some species of mosquitoes that can overwinter as eggs. The female mosquito lays eggs in water before the water freezes. The eggs can then diapause and can even withstand being frozen for a time until the temperatures increase and optimal conditions revitalize the eggs to hatch and resume the life cycle to become adult mosquitoes.

So, when we look out the window this winter at the freezing, blowing snow, we can know that mosquitoes are still around and are just waiting for the warmer days of next spring!

# Ag Corner

## Farm Equipment for Rent

### Great Plains 706NT No-Till Drill

7ft planting width, 10 ft overall. Two seed boxes, large capacity. 4-speed Gear Box. Adjustable depth control. 1-10 acres: \$12.00/acre. 10+ acres: \$10.00/acre. Minimum charge of \$50.00. No-till drill is rented in 3-day blocks.



### Stoltzfus Redhawk 40 Spreader

This is a 4 ton spreader (5 ton with installed extensions). \$75.00 for first 100 tons and \$50.00 for each additional 100 tons. The spreader is rented in 3-day blocks.



### IMPORTANT FACT!

All farms tilling greater than 5,000 sq. ft. must have an erosion and sedimentation plan (Conservation Plan). All farming operations that land apply manure need to develop and implement a manure management plan. Call the conservation District to get detailed information and support developing your plans.

## WELCOME LINDSEY SHEPLER

### Watershed Specialist/Environmental Educator



Hello! My name is Lindsey Shepler and I am very excited to be joining the Beaver County Conservation District team as the new Environmental Educator and Watershed Specialist. In this role I will be taking over the environmental education programs here at the district which include the annual Envirothon and PA Master Naturalist as well as school field trips and programs. I am looking forward to expanding the role in the future to bring more education programs to the public. I will also be taking over as the watershed specialist reviewing projects and applying for grants to improve the overall watershed in the county.

I am a current Beaver County resident and was born and raised here. I have a Bachelor of Science Degree in Environmental Science from Robert Morris University. I have past job experience interning with DCNR, working in a soil & water testing laboratory, and working for Beaver County as a department supervisor. My dream from going to college was always to work as an environmental educator and I'm so excited to finally be doing that! I am looking forward to expanding the education program at the district and allowing more and more people to get involved with conservation.

My hobbies outside of work are my hound, hiking, camping, and riding horses. My husband and I also enjoy hobby farming and tractor pulling at county fairs.

# Hellbent – A Nature Festival

BCCD had the pleasure of attending Hellbent – A Nature Festival that was held by Big Sewickley Creek Watershed Association. Participants got to view Hellbent which is a 20-minute-long film about a community in Pennsylvania who is fighting an injection well to save a creek with Hellbenders. We handed out information on our programs and tick kits to participants. If you are interested in seeing the movie, check out <https://www.hellbentfilm.com/>.

Hellbent: “In a small rural town in Pennsylvania, the refuge of a rare salamander and the only source of clean drinking water for 700 people is threatened by the installation of a fracking waste injection well, prompting community members to band together and mount an epic fight for the rights of their people and nature.”



## ACAP

### Moving Forward!

ACAP: The Agricultural Conservation Assistance Program is moving forward in Beaver County. This program provides financial and technical assistance for the implementation of best management practices (BMPs) on farms. The goal is to reduce nitrogen, phosphorous and sediment pollution to waterways.

Ten farms in Beaver County applied for funding with this new program. With \$1,069,000 in funding, the district was able to award funding to 5 projects. These projects include many BMPs such as waste storage facilities, grassed waterways, pasture improvements and stream crossings. Over the next three years as these BMPs are implemented, farm operations and water quality will be improved. All residents of Beaver County will benefit!



The Conservation District is hopeful that long term funding for ACAP can be secured. There is much interest in the program. ACAP benefits the environment and the people of Beaver County.

# 2023 Dirt & Gravel Low Volume Road

2023 was a successful construction season for Dirt, Gravel, and Low Volume Roads. The 2023 project showcase is as follows:

- ◇ Glasgow Borough—Glasgow Borough completed a dirt and gravel road project on multiple roads in their municipality. 1, 378 tons of DSA was placed.
- ◇ Big Beaver Borough—Big Beaver Borough completed a low volume road project on Aley Hill Road. They completed phase 1 of the project in 2022 and completed phase 2 in 2023. This project included the installation of underdrain, inlet boxes, and cross pipes that have proper headwalls/end walls and stabilization.
- ◇ Darlington Township—Darlington Township completed a low volume road project on Ridge Road. This project included the installation of underdrain, inlet boxes, cross pipes that have proper headwalls/end walls, and a road grind and reprofile of the road.
- ◇ Fallston Borough—Fallston Borough completed a low volume road project on Circle Street. This project included the installation of underdrain and inlet boxes that have proper end walls.



# AG-LAND PRESERVATION

SINCE 1995



## LOOKING TO THE FUTURE

### • 2024 Preservation

The Beaver County Agricultural Land Preservation Board is gearing up for the 2024 Ranking season. To be considered for the upcoming season, applications must be submitted by December 31st. Don't hesitate to reach out to our office for further details.

“Agriculture is our wisest pursuit, because it will in the end contribute most to real wealth, good morals & happiness.

-Thomas Jefferson



### • What's New?

The Beaver County Agricultural Land Preservation Board is set to close on another farm by the end of December 2023. We are excited to welcome this farm to the preservation family.



### • Farm-City Banquet

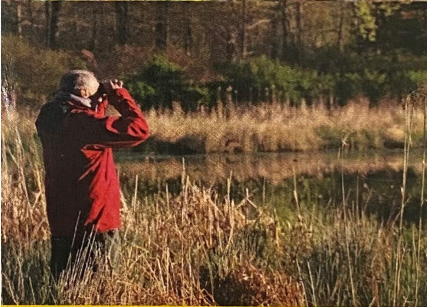
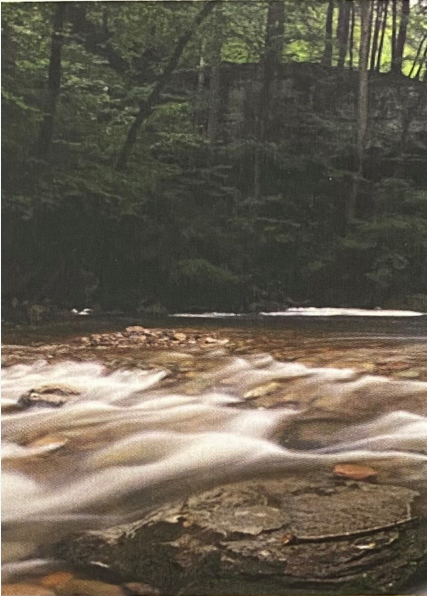
- 100+ people attended the 2023 Banquet
- Two newly preserved farms were honored
- 10 representatives of the BCALPB were present



# 2024 PA Master Naturalist Program



PENNSYLVANIA  
Master Naturalist



BUILDING A CORPS OF  
KNOWLEDGEABLE, SKILLED,  
AND DEDICATED VOLUNTEERS  
WHO PROVIDE SERVICE TO  
PROTECT PENNSYLVANIA'S  
NATURAL HERITAGE

[pamasternaturalist.org](http://pamasternaturalist.org)

In April 2024 the Beaver County Conservation District will once again be hosting the Pennsylvania Master Naturalist Course at our education facility. PA Master Naturalist is a statewide program designed to help local people become more involved with their ecosystems through an intensive 12 week program where they will learn about varying topics from Geology and ecology to mammalogy, entomology, watershed and urban ecology. Each session is taught by a different professional in the field of study. Programs are designed to focus on the specific region in which the class is occurring. In order to allow each class to be personal to each participant participation is limited and an application must be submitted to participate. Application does not guarantee acceptance into the program. For more information on the class and on scholarship opportunities to participate scan the QR code to the right or visit [www.pamasternaturalist.org](http://www.pamasternaturalist.org). More information will be posted soon regarding sign up and deadlines on the Beaver County Conservation District website at <https://www.beavercountyconservationdistrict.org/pa-master-naturalist>

Any additional questions can be answered by contacting the environmental educator Lindsey Shepler at [lindsey.shepler@bccdpa.us](mailto:lindsey.shepler@bccdpa.us)

## Pennsylvania Master Naturalists



Join the growing number of Pennsylvanians who are discovering what makes Pennsylvania's natural areas a unique and amazing place in which to explore, connect, and conserve.



To learn more about the Pennsylvania Master Naturalist Program visit: [www.pamasternaturalist.org](http://www.pamasternaturalist.org), or scan the above symbol with your smartphone.



PENNSYLVANIA  
Master Naturalist

## CHAPTER 102

### *Stabilizing your site during the winter*

It's that time of year again! NO, I don't mean the holidays – I mean its time to get serious about stabilizing your project site. Site stabilization is a staple to any successful Erosion and Sediment Control plan – but it is especially important during the winter months outside of the growing season and when your site is dealing with the freeze and thaw of winter temperatures. Chapter 11 of the Erosion and Sediment Pollution Control Manual covers Stabilization Methods and Standards.

Cessation of activity for at least 4 days requires temporary stabilization unless the project takes place in a special protection watershed, which must be immediately stabilized. All disturbed areas on a site have potential for erosion and must be stabilized with vegetation. This standard applies to areas where future earthmoving may be planned. Areas that will be subject to earthmoving within 12 months may be stabilized with temporary seed mixtures, predominantly annual grasses. All others should be stabilized with permanent seed mixtures – predominantly perennial grasses.

In no scenario should an area of disturbance exceeding 15,000 square feet reach final grade without being seeded and mulched. Stabilization methods should be implemented concurrently with earth disturbance activities.

If final grade is achieved during non-germinating months - the area of disturbance should be mulching until the beginning of the next planting season.



**Erosion control blankets** are another effective tool in stabilizing a site, specifically steep slopes. All slopes 3H:1V or steeper or areas where there is potential for sediment pollution reaching surface waters should have erosion control blanketing installed. Erosion control blanketing should be used in areas where revegetation may be difficult. Erosion control blankets, when properly installed, can assist hold soil particles in place and retain soil moisture, boosting seed germination. Additionally, a blanket can protect seedlings from harsh direct sunlight. Manufacturers guidelines should be advised when installing an erosion control blanket.



**Hydroseeding** or **Hydraulically Applied Blankets** are effective strategies to spread grass seed over a large area of disturbance. The soils underlying the mixture of seed and mulch should be prepared before application. There are multiple options for types of hydroseed mixes. One common mix is a bonded fiber matrix (BFM). A BFM is a specific product that acts as a seed mix as well as locks a paper/mulch mix of fibers – essentially locking in the mixture onto the soil. As the manual states: **Bonded Fiber Matrix should not be applied between September 30 and April 1.** Manufacturer specifications should always be observed. Application rates may vary depending on site conditions. These can be found in Chapter 11 of the Erosion and Sediment Pollution Control Manual. While this is not an effective strategy during non-germinating months – it is important to schedule ahead to make the most out of the growing season when the time comes.



As a reminder, **temporary stabilization** methods may be used for areas that are not at finished grade but will be reactivated within one year. Areas that are not reactivated within a year and have reached final grade must be stabilized in accordance with the permanent stabilization standards.

**Permanent stabilization** in an area is defined as a uniform 70% vegetative cover of erosion resistant perennial species.



**Remember that stabilization is not an afterthought or a final phase in a project; rather, it is a key component to the success of an Erosion and Sediment Control Plan throughout the life of the project!**



# CHAPTER 105

## Fee Schedule

The Fee Schedule below details all fees associated with the Chapter 105 Permits which may be applied for through the District. All Chapter 105 General Permit registrations should be accompanied by an E&S Plan, the review of which is an additional \$175. Additional services are listed at the bottom of the page, including pre-application meetings and PNDI searches by the District, which each have a separate fee. Please do not hesitate to contact the District with any questions regarding our Fee Schedule. The full Fee Schedule, which also includes fees associated with Chapter 102 submissions, may be found on our website at the top of the following page: <https://www.beavercountyconservationdistrict.org/erosion-sediment-control>

### CHAPTER 105 PROGRAM GENERAL PERMIT FEE SCHEDULE

- All Federal, State, and Municipal entities are exempt from Chapter 105 fees listed on this page.

General Permits:

General Permits (GPs)	Permit Description	Registration Fee
GP-1	Fish habitat enhancement structures	\$50
GP-2	Small docks and boat launching ramps	\$175
GP-3	Bank rehabilitation, bank protection, and gravel bar removal	\$250
GP-4	Intake and outfall structures	\$200
GP-5	Utility line stream crossings	\$250
GP-6	Agricultural crossings and ramps	\$50
GP-7	Minor road crossings	\$350
GP-8	Temporary road crossings	\$175
GP-9	Agricultural activities	\$50

TABLE 6:

General Permit Fees:

CH 105 General Permit Registration Fee		Made payable to: "BCCD 105 Clean Water Fund"
E&S Plan Review in association with a General Permit*	\$175	Made payable to: "Beaver County Conservation District"

\* E&S plans are required for all GP permits in Chapter 105

Additional Service Fees:

Made payable to "Beaver County Conservation District"

Pre-Application Meeting	\$50 in person	\$0 virtual *highly recommended*	
PNDI Search	\$40 regular fee	\$60 admin fee	Total \$100 per search by BCCD