











YORK COUNTY **CONSERVATION DISTRICT**

Conservation Horizons

Fall/Winter 2021



Around the District

Welcoming the Change of Seasons

The transition of the seasons, especially in this part of the country, makes York a special place to live. With each new season comes its own uniqueness and set of challenges. We, as county residents, get to experience the four seasons each year, but none are ever quite the same from one year to the next. That tends to make it even more interesting, always awaiting the unknown.

District staff are that one constant found from season to season. They are focused on the District's vision of the improvement and protection of our

Above: Goldenrod signaling fall at Central Penn Sporting Clays environment and the wise use of our County's diverse natural resources. Many of those resources will be on full display as we move through the fall. Whether you plan to venture out on a cool morning hike along one of our many streams or creeks, or take a hayride to a pumpkin patch that traverses our county's agricultural ground, you are having an interaction with our natural resources. Spend enough time outside over the next few months, and you'll start to see the vast amount of work that's been done in this county to maintain and improve those resources, all while still offering numerous locations for those pumpkin spiced lattes everyone seems to love...

— Continued pg. 2—

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Around the District (continued)

In years gone by, the fall and winter months would tend to be slower in the grand scale of working to improve our resources. However, that is not the case this year. Construction within the county is increasing in all facets. Agricultural requests for assistance are increasing as word spreads of the numerous funding sources currently available to help reduce implementation costs, and none of the above even includes the volume of requests for information and project support coming to our watershed department.

Our time is more valuable than ever. But if you get the chance, check out some of the upcoming fall offerings that will surely show up across your social media platforms. Fall is a great time to learn about, help, and enjoy our county's natural resources.

Jeff Hill

Conservation District Manager



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Sale

Pick up:

Thursday, April 14th

Rocky Ridge County Park

Sponsored by:

York County Conservation District

Improve Habitat

Support Conservation

Visit yorkccd.org

or

Call (717) 840-7430 for details

Deadline to Order:

March 14, 2022



www.yorkccd.org



Support Your Local

Watershed Alliance

In June 2021, the York County Coalition for Clean Waters (YCC4CW) officially merged with the Watershed Alliance of York (WAY)! As a result of the merger, WAY has rebranded, launching a new logo, and revamping the social media accounts and website. WAY has also agreed to assist in the collaborative implementation of On August 12th we held our Annual the York Countywide Action Plan (CAP) to help improve local water quality.

Will you join us in our mission to improve York County's water, making it cleaner and healthier for all? Visit watershedallianceofyork.org to get started!



Watershed Stewardship Award:

Cindy Pizziketti

(Above) Cindy just passed over 1,000 volunteer hours with the Master Watershed Stewards (MWS). This includes volunteering for buffer plantings, participating in the Greener Codorus Initiative, assisting with water quality monitoring, educating the public, and organizing MWS, LSRK, and WAY events. She is a rock star volunteer, and her enthusiasm is infectious.



Conservation Awards

Conservation Awards Picnic at Rocky Ridge Park. Each year a committee selects individuals and businesses in York County to recognize for their commitment to conservation efforts. Award recipients were presented with a signed, limited edition framed print by Millicent Neill Decker while guests enjoyed a catered picnic dinner.

Outstanding Stewardship Award:

Glenn Hope Care Farm/Agricare, **Aimee Morris**

(Below) Glenn Hope Care Farm aims to bridge the gap between health care and natural healing environments. Agricare focuses on farming operations and production. They embrace "Green Care" philosophies and assist veterans re-entering the workforce.



Outstanding Partnering Organization:

Lower Susquehanna

Riverkeeper, Ted Evgeniadis

(Left) Lower Susquehanna Riverkeeper Association is dedicated to improving the ecological health of the Lower Susquehanna River Watershed and the Chesapeake Bay. Ted, as LSRK, has hosted various creek cleanups, the Susquehanna River Plastic Purge, while advocating for clean water, protective policies, and enforced regulations.

Conservation **Quiz Corner**



Are you smarter than an

Envirothon 5th Grader?

Answer the following to find out!

- What do you call fishways con-1. structed on barriers?
- 2. What kind of trees lose all of their leaves when the weather gets colder?
- 3. Who is the author of Silent Spring?
- 4. What is the collection system in which recyclables of different materials are intermixed in a single container and separated later?
- 5. What is the largest woodpecker in Pennsylvania?
- What do you call a baby porcu-6. pine?
- 7. Who was the first chief of the **US Forest Service?**
- 8. What is Pennsylvania's state amphibian?

Check your answers on page 12



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Erosion & Sedimentation

What it is & Why it Matters

Many years ago, I had an opportunity to help restore an old, neglected house. The land surrounding the house had become overgrown with scrubby vegetation, so part of the restoration involved clearing away the old overgrowth and making new lawn. When we were done clearing brush, filling in low spots, raking the soil, picking stones, and finally seeding that lawn we had close to an acre of soil exposed.

And then it rained...hard. The runoff washing off our beautifully prepared lawn looked like a chocolate river as it ran off our site, down the township road, and unfortunately onto a neighbor's property. We ended up getting a visit from the local Conversation District after that storm. At the time I could not understand why our lawn project was a problem-we couldn't control the storm and what's wrong with a little mud? After some education and a lot of experience, I now

understand that a little mud can lead to big problems if not properly managed.

Soil erosion is the process by which the land's surface is worn away by the action of wind, water, ice and gravity. This article focuses on water erosion. Natural erosion has been occurring since the earth was formed and generally occurs slowly over time. Natural erosion is critical to maintaining an ecological balance. However, human activities can cause erosion to occur at a faster rate than what occurs in nature and that is when erosion can become problematic. Erosion that occurs because of human activities is called accelerated erosion. Human activities like removing vegetation and stripping topsoil can increase soil exposure to erosive forces leading to accelerated erosion.

When soil particles erode away during storm events, they become suspended in stormwater runoff and are transported downslope. As water velocity slows, runoff no longer can hold the suspended soil particles and the particles become deposited in a

process known as **sedimentation**.

As stormwater flows downhill those particles can end up in surface waters like streams and wetlands. Sedimentation occurs in streams naturally and helps streams maintain equilibrium. However, too much sediment entering a stream system can throw a stream's equilibrium off balance and cause it to adjust its size and shape as it attempts to bring the system back into equilibrium. Excess sediments entering a stream ecosystem can wreak havoc.

Did you know that sediment is the largest pollutant to surface waters in Pennsylvania by volume?

Above Left/Right: Sediment pollution occurring to York County streams from construction sites Below: Gully erosion occurring in soybean field



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Why is accelerated soil erosion and sedimentation a problem?

- Sediments can collect pollutants such as nutrients (ex: phosphorus & nitrogen) and heavy metals which can end up in surface waters. Accumulated sediments can become long-term reservoirs for harmful pollutants like DDT & PCBs.
- Excess nutrients can cause algal blooms in surface waters 1. like ponds, lakes, reservoirs, and bays.
- Sediment can block the amount of available sunlight for aquatic plants and limit visibility for aquatic animals to find food.
 Sediment can accumulate on the bottoms of streams which can destroy habitat for aquatic 2.
 life and smother benthic organisms. Additionally, sediment can be abrasive to fish gills.
- 4. Accumulated sediments in surface waters can reduce water depths and cause the water temperature to increase. Sediment can also reduce the amount of dissolved oxygen in surface waters.
- 5. Sediment pollution has significant economic impacts. Damage from sediment pollution costs the U.S. billions of dollars annually. Sediment pollution can

lead to the need for costly dredging of navigable waters and polluted waters can lead to a reduction in recreation and tourism revenue. Additionally, sediment pollution increases the cost of filtering drinking water and can lead to stream bank erosion and loss of property as a result.

What can I do?

- . When planning a project involving earth disturbance, implement appropriate erosion and sediment controls (ex: silt fence, compost filter sock, etc.) downslope of the project so that sediment laden runoff is treated before discharging offsite or to surface waters.
- Minimize the amount of soil you disturb at a time and stabilize areas with seed and straw mulch as you go. The best tool to prevent accelerated erosion and sedimentation is vegetation. By keeping soils covered and minimizing disturbance, you lower the risk of having a pollution event from your project.
- 3. Familiarize yourself with the law before starting a project involving earth disturbance. In Pennsylvania, a written Erosion and Sedimentation Control



Plan (E&S plan) is required for projects that propose 5000 square feet or more of earth disturbance. If a project proposes .991 acres or more of earth disturbance a federal NPDES permit is required prior to commencing work. If you have questions, don't hesitate to reach out to your county Conservation District. Local laws may be more restrictive than state & federal laws, so it's important to communicate with your local municipality as well.

Tiffany Crum

Resource Conservationist

Reference: Pennsylvania Erosion and Sediment Control Program





Water Quality **Best Management Practices (BMPs)**

Understanding Suburban and Rural Practices

Our 2021 BMP Series continues! If you didn't check out our Urban BMP article in the Spring edition of Conservation Horizons - you should! The Watershed Department is showcasing Best Management Practices (BMPs) for water quality across York County. BMPs are activities, maintenance procedures, and other management practices to prevent or reduce non-point source pollution of waters of York County. Non-point source pollution is pollution resulting from many dispersed sources, in direct contrast to point source pollution which results from a single Cover Crops source. Non-point source pollution generally results from land runoff, precipitation, drainage, or seepage.

This edition will focus on Suburban many different cover crops a farmer and Rural Practices that are completed primarily by farmers or landowners with an acre or more of undeveloped property.

— Riparian Forest Buffer

WHAT IT IS: "Riparian" describes the area alongside a river or other body of water. A riparian buffer involves planting or retaining trees, shrubs, or tall grasses along the banks of rivers, streams, lakes, and ponds.

HOW IT HELPS: Along riparian buffers the soil becomes more porous and allows water to soak in more easily. Riparian buffers act like sponges along a waterway by soaking in precipitation and water running off the land. They also capture sediment, nutrients, and other pollutants that are carried with the water runoff. The deep roots of these plants hold streambanks in place while leaves and branches of the buffer provide shade and wildlife habitat.

Above Left: Volunteers planting riparian buffer Below: Cover crops planted after corn harvest





WHAT IT IS: Cover crops are added to a crop rotation in between two commodity or forage crops. There are could use. The farmer might consider a variety of factors, including the cost of the seed, the intended use, how the cover crop fits into the cash crop rotation, anticipated planting and harvest dates, as well as longterm management goals.

HOW IT HELPS: Cover crops provide living, seasonal soil cover with a variety of on-farm benefits, such as increased soil moisture capacity, improved nutrient cycling, and weed suppression. Cover crops can also provide public benefits by reducing sediment loss, nutrient runoff, and leaching; reducing flooding; and storing carbon in the soil.

Below: Rain garden in York County



Rain Gardens 🚽

WHAT IT IS: A rain garden is a planted depression that soaks up rainwater runoff from roofs, driveways, walkways, and compacted lawn areas-water that would otherwise carry pollutants directly to our streams. Rain gardens soak up 30 percent more water than an equivalent patch of lawn.

HOW IT HELPS: Rain gardens reduce runoff by capturing rainwater and allowing it to infiltrate back into the ground. They help reduce flooding and remove pollutants, provide pollinator and wildlife habitat, and beautify the neighborhood.

> Alyssa Swartz Watershed Technician

Soil & Manure

Why & How to Sample

Soil and manure sampling is beneficial for farmers and conservation. Even if you only have a small garden, knowing the nutrient needs of your soil is essential. This article provides several tips and tricks for proper manure and soil sampling.

Before taking soil samples, decide on a sampling schedule and organize all fields on a 2-3 year rotation for sampling. Assign names and/or numbers to each field. For sampling purposes, each field should be no larger than 20 acres. The best time to take soil samples is in the fall. Take samples around the same time each year for accurate comparison. Lastly, find a lab to analyze the samples.

Prior to sampling, a few supplies are needed: soil sample bags (usually provided by the lab), permanent markers, a clean 5-gallon bucket, and soil probes. Some labs also require soil types, which can be found online using WebSoilSurvey. Next, decide on the best location to take soil samples for each field. Collect 15 -20 samples in areas that fully represent the field. Avoid fence rows, dead furrows, spots where lime or manure were previously stacked, end rows, areas with woody vegetation, areas that typically lay wet or are highly eroded, as well as former animal housing and enclosures.

Now, take some samples! First, remove any crop residue from the soil surface. Depending on tillage and crop, the soil probe will have different depth requirements. For crop fields in a continuous no-till rotation, take soil samples 6 in. deep. For pastures and long-term hay fields, take samples 3-4 in. deep. In conventional

tillage systems, take samples 8 in. deep (or the depth of tillage). After taking a sample, place the soil in a clean 5-gal. bucket. 15-20 samples should be taken in each field. After samples have been placed into the bucket, mix the subsamples together and place 1-2 cups into the sample bag. Label the bag with the required field information.

Taking soil samples is important for all crops, hay fields, pastures, and even gardens. Every plant requires different soil chemistry to thrive. For example, tomatoes require a soil pH between 6.0 and 7.0 whereas blueberries require a soil pH between 4.5 and 5.5. Knowing the exact soil chemistry helps plan for nutrient needs and crop placement.

Why test manure? Manure samples tell you the nutrients from the manure and allow operators to estimate how much manure is needed for crops in each field. To sample, it is best to take samples while loading for manure application. Take a few samples from each load and place in a clean 5-gal. bucket. Mix the samples in the bucket, and take a subsample of the manure. Place the subsample into the lab sample container. If sampling directly from the pile, avoid the weathered section. The surface of a manure pile can be altered by volatilization of nitrogen and rainwater can leach watersoluble nutrients into the pile, causing inaccuracies within the manure sample. Take 10-20 samples from different areas and depths of the manure pile.

Sampling liquid manure can be more complicated. Liquid storages must receive adequate agitation before sampling. When agitating liquid storages, be aware of safety concerns relating to harmful gases! For liquid manure, take samples while the Below: Collecting a sample with a soil probe



storage is being emptied for manure application and follow the same process as solid manure. When sampling, it is imperative to send manure samples to the lab right away! Follow the instructions from the lab for correct packaging and shipping. Find more info on manure sampling in Agronomy Facts 69 on Penn State Extension's website.

Taking soil and manure samples will allow you to plan exactly how much manure and commercial fertilizer is needed on each field. Spreading the right amount of fertilizer, manure, and lime leads to less nutrient runoff which helps to keep our water clean and is cost effective. Knowing the exact nutrients needed will prevent overapplication and underapplication, thereby saving you money. Knowing your soil and manure nutrient levels leads to more informed management decisions and potentially higher yields and economic returns.

In the next *Conservation Horizons* newsletter, we will discuss how to interpret soil and manure samples

Melodie Jones

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Resource Conservation Specialist I



Conservation Horizons 🐀 Fall/Winter 2021

York County ENDESTION IN ICON INI ICONI

14th Annual Fundraiser

PULL! The 2022 York County Envirothon sponsorship drive has officially begun with our 14th Annual Sporting Clays Fundraiser! Our generous supporters shattered our fundraising expectations and made this an unforgettable event

Due to an outpouring of support, we added a morning shoot this year to accommodate more participants. The morning shoot was slightly calmer than the afternoon shoot, and was well-received by participants.

The York County Delegation of representatives and senators sponsored our gun raffle again this year. The raffle raised a record amount for the Envirothon. Commissioner Doug Hoke generously supported the event and assisted us in the drawing of the winning gun raffle ticket.

We witnessed impressive feats of marksmanship, with teams competing for the 1st place trophy and individuals competing for 1st-10th place. No one left empty-handed, as all participants received door prizes.



Above: Participants test their marksmanship while benefitting the Envirothon

Right: Commissioner Hoke showing support & drawing winning gun raffle ticket

We are grateful for the support of our sponsors, and we look forward to seeing everyone again next year!

Michael McKelvey

Education & Communications Coordinator

Below: YCCD team at Sporting Clays Fundraiser





Sporting Clays Results		
Highest Scoring Team		
York Ag Products	216/250 Targets	
Highest Scoring Individuals		
1 st — Dale Wertz	49/50 — 44 in run	
2 nd — Jim May	47/50 — 29 in run	
3 rd — Greg Bard	47/50 — 27 in run	
4 th — Michael Hess	45/50 — 21 in run	
5 th — Ryan Bailey	45/50 — 19 in run	
6 th — Bryan Eberle	45/50 — 16 in run	
7 th — Mark Kimmel	45/50 — 15 in run	
8 th — Carmen Beinhau	er 45/50 — 13 in run	
9 th — Brady Riedel	44/50 — 17 in run	
10 th — Nathan Wertz	44/50 — 16 in run	
11 th — Rick Myers	44/50 — 15 in run	





Our purpose is to promote wise use and management of soil, water, air, plants, wildlife and other natural resources through four program areas: Agricultural Resources, Education, Erosion & Sediment Control and Watersheds.

We have served York County since 1938, when a group of 554 farmers from 18 townships signed a petition to form the York County Conservation District. This petition was approved by the state Soil Conservation Commission in 1948. Like all Conservation Districts, we are a legal subdivision of state government like townships or school districts. Our budget is supplied by county, state and federal programs, as well as foundation grants & fees for services. We are managed by a board of environmentally aware York County citizen volunteers.



Welcome Aboard:

Jeff Hill

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We are proud to introduce Jeff Hill, our new Conservation District Manager. Jeff worked at the Lancaster County Conservation District for 15 years, 10 of which years were as Ag Department Manager.

As a York County resident with a keen eye for the details of farming operations,

Jeff is well-versed in York County's unique agricultural composition.

Jeff hit the ground running in March, and has since earned the trust and respect of District staff and Directors. Looking forward, Jeff says one of his top goals is to expand outreach efforts and increase public awareness of Conservation District program offerings.

We have traditionally assisted agricultural producers and other landowners in protecting soils & reducing erosion in our waterways. Today, the District also works with nonagricultural landowners, developers and local government officials to protect our natural resources.

We do this by coupling technical & financial assistance with conservation planning and permitting requirements.

Education is a cornerstone of the District and we target a wide audience about effective pollution prevention techniques to farmers, landowners, local officials, watershed associations, conservation organizations, civic groups, churches, schools, teachers and youth.

Our Vision - We are committed to the improvement & protection of our environment and the wise use of our County's diverse natural resources.

Our Mission - To achieve that vision we will be proactively providing conservation education, technical services and financial assistance to enable the citizens of York County to be good stewards of our natural resources.

Board of County Commissioners

Julie Wheeler, President Doug Hoke, Vice President, Ron Smith

Board of Directors

Directors:

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Directors Emeritus:

Keith Eisenhart

York County Ag Land Preservation Program

Patty McCandless, Program Director 717-840-7400 2401 Pleasant Valley Road, Suite 101, Room 145, York PA 17402

Now accepting applications for landown- the American Farmland Trust (AFT) in checks. The County Board also selected ers interested in preserving their farm August. The grant will help the agency through a conservation easement sale to promote soil health practices with our the County of York or the Common- landowners and producers. As recipients wealth of Pennsylvania. Applications of the grant, employees David Boose and only accepted every other year (Deadline: Marty Druck attended a 3-day virtual February 15, 2022). Applications availa- training on Soil Health. The training was ble online or mailed. Appointments en- hosted by AFT with speakers from AFT, couraged to ensure a qualifying applica- NRCS, PA State Conservation Commistion is submitted. Staff available by ap- sion, PA Dept. of Ag, PA Soil Health Coapointment to review program eligibility lition, along with speakers from agencies requirements and assist with application throughout the US. Participants were completion and mapping. A signed map encouraged to become engaged and colof the lands to be preserved is required. laborate on ways to promote soil health. Enrollment in your Ag Security Area and a current conservation plan are two key eligible requirements. Make an appointment today to review the requirements and start the application process.

In the 2020, a total 50 farms gualified for preservation, with 31 farms selected for appraisal and preservation. The average easement value was \$3000 per acre with In 2020 we worked with 16 landowners a 100% acceptance rate.

Our agency was awarded the Soils Health Steward Grant of \$10,000 from

Dave and Marty are now tasked with using the knowledge and funds received to promote the message of soil health. They are excited to share the importance of determining, maintaining, and improving soil health conditions on York County farms. We are seeking partners for our soil health education efforts.

(1,502 acres to preserve). Those 16 farms are now fully state or county approved and preserved or awaiting settlement



14 farms (1,142 acres) in 2021 for appraisal and processing.

Inspection season is underway. If you have changes to report or are planning changes, such as new structures, deeds, or conservation plans please share a copy with Dave or Marty, our agency inspection monitors. We visit preserved federal easements every year, and state or county easements every other year.

Important Reminders (1) We have a \$3000 per acre cap; (2) Now accepting and reviewing easement applications received by February 15, 2022; Landowners may begin updating or submitting new applications at this time. Call us at (717)840-7400or visit us at www.yorkcountypa.gov for assistance or program information. Go to Property & Taxes, then Ag Land Dept., to follow our Farmland Preservation Information. Thank you York County Commissioners for your ongoing support of York County's farmland preservation efforts to protect our working lands. 🔈

HEARTWOOD NURSERY



(near Stewartstown) **OPEN** Mondays through Saturdays 9:00 - 4:00 (717) 993-5230 www.heartwoodnurseryinc.com





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Conservation Horizons York County Conservation District 2401 Pleasant Valley Road Suite 101 Room 139 York, PA 17402

"The outgrowth of conservation, the inevitable result, is national

efficiency." – Gifford Pinchot The Fight for Conservation (1910)

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Conservation Quiz Corner Answers: (1) ladders (2) deciduous (3) Rachel Carson (4) single stream recycling (5) pileated woodpecker(6) porcupette (7) Gifford Pinchot (8) eastern hellbender