



Conservation Horizons

Summer 2022



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YORK COUNTY
CONSERVATION DISTRICT



Above: Students test their knowledge at the Wildlife Station during the 2022 York County Envirothon Competition

Around the District

Education is the bedrock of every aspect of our lives. In some way, shape, or form, education has led each of us to where we are today. It will also help lead us to where we go in the future. Education is a crucial piece of the foundation for the Conservation District.

Spring and early summer see some of the best educational opportunities the Conservation District has to offer. The annual Seedling Sale, the York County Envirothon competitions (students from 3rd—12th grades), the numerous tree plantings/watershed activities, and outreach activities conducted by the Erosion & Sediment Control and Ag departments are all events that

help to educate, promote, and improve our local environment.

There was no better feeling than seeing over 600 residents navigate our Seedling Sale, knowing that in their own way, whether they knew it or not, they were doing their part to help improve the soil, air, and water of York County. Speed forward to the over 700 students that participated in the Envirothon competitions and I'd wager that this year there have been many spirited discussions about how much fun those students had and how all that hard work paid off.

— Continued pg. 2 —

Around the District (continued)

The Chesapeake Bay Program, has been around for almost 40 years, with a focus on the bay. Although the primary goal is the improvement of the largest estuary in the United States, educational efforts have led many people to realize that the best way to clean up the larger waterbody is to work locally. The phrase “think globally, act locally” covers many bases, but none better than for water quality.

Improvements can be made on even the smallest parcel of land that can help to improve infiltration and filter runoff. I hope within the pages of this newsletter and upcoming publications there are topics which help educate you and encourage you to increase your knowledge of local conservation efforts.

Jeff Hill

Conservation District Manager



Above: Customers pick up seedling orders at Rocky Ridge Park and Conservation District employee prepares seedling order

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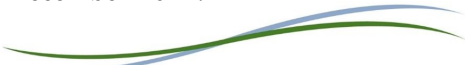
Seedling Success

How new online ordering boosted our 2022 sale.

This year we launched a convenient online ordering system for our 2022 Seedling Sale. Our customers welcomed this new online option, as over 4 out of 5 customers submitted their orders online.

In addition to offering convenience to our customers, the new online ordering system also made life easier for our administrative staff.

We hope you will consider participating in our next Seedling Sale when we begin accepting orders in December 2022!



15th Annual Sporting Clays Fundraiser September 16th

at Central Penn Sporting Clays

“A wonderful day afield for a good cause!”

Visit yorkccd.org

to learn more.



York County ENVIROTHON



Last Year's Top Sponsors

\$5000



\$2000



\$1000



Location:



SPORTING CLAYS FUNDRAISER

SUPPORT THE ENVIROTHON

Help us kick off the **2023 Envirothon** fundraising drive!

Join us for our **15th Annual Sporting Clays Fundraiser**.

Includes:

- 1 Round of 50 Targets
- Delicious BBQ Lunch
- Chance to Win Great Door Prizes

How to Sponsor and Participate:

1. Contact the Envirothon Coordinator at **717-840-7430** to discuss sponsorship and reserve your spot.
2. Select either the morning shoot or afternoon shoot.
3. Assemble a team of 5 participants.
4. Show up at Central Penn Sporting Clays on Sept. 16th
5. Test your marksmanship, enjoy BBQ lunch, and have fun!

Now Accepting Sponsors

Individual Registration opens July 15th

Interested in being a Sponsor? Contact Us!

(717) 840-7430

yorkccd@yorkccd.org





Buffer Benefits

Why add a riparian buffer to your land?

Did you know that there are over 86,000 miles of rivers and streams in Pennsylvania?

In York County, we have 6 major watersheds:

- Yellow Breeches Creek
- Conewago Creek
- Codorus Creek
- Kreutz Creek
- Muddy Creek
- Deer Creek

York County has 1,670 miles of streams and approximately 30% of these streams are **impaired**.

Landowners can benefit streams by implementing **riparian buffers**.

Above: Stream with newly planted buffer

Right: Stream in need of buffer & fencing

TOP 5 Benefits of Buffers on Agricultural Land:

1) Stabilize Banks

Problem: Eroding banks can remove valuable agricultural land while degrading streams and drinking water quality.

Buffer Benefit: Where stream bank erosion isn't active and severe, tree roots can hold soil in place.

2) Prevent Flood Damage

Problem: Flooding from larger storm events can erode cropland and leave debris in fields.

Buffer Benefit: Trees along a stream channel can reduce floodwater velocity and erosive power, while blocking debris from entering cropland.

3) Filter Pollutants

Problem: Sediment, nutrients, pesticides, and animal waste in streams can degrade water quality and aquatic habitat. Nitrates and pesticides can be toxic to humans and phosphates can promote harmful algae blooms.

Buffer Benefit: Trees filter contaminants and trap sediment in place. Trees can uptake more soluble contaminants with improved **infiltration** of surface runoff.

4) Provide Shade

Problem: Unshaded streams are warmer in temperature and provide poor habitat for fish and other aquatic organisms.

Buffer Benefit: Shade reduces the intensity of the sun and decreases water temperature.

5) Provide Habitat

Problem: Cropland may provide little to no value to fish and aquatic organisms, as well as insufficient cover and food for other wildlife.

Buffer Benefit: Plants and resulting insects and other invertebrates provide food for fish and other aquatic organisms. Additionally, connected buffers become wildlife corridors.



Right: Mature buffer

Types of Buffers Commonly used in York County:

Grassed Buffer



Meadow



Trees



Shrubs



Grazing Livestock and Buffers

If you are grazing livestock and there is a stream located near the pasture, or even through the pasture, implementing a buffer would not only improve water quality but would also benefit the livestock.

Problem: Livestock, especially cattle and horses, can cause **streambank erosion** with the heavy foot traffic in and out of the stream.

Solution: Fence the stream (recommended 35 feet for buffers) out of the pasture. If the livestock still need a way to get through the stream, **stream crossings** provide a safe travel lane through the stream to the other side. Stream crossings will still provide livestock the opportunity to get water.

Buffer Benefit: Keeping livestock out of streams also provides opportunity for better aquatic habitat while reducing flooding. It even improves livestock health by reducing their risk to parasites and bacteria.

There are several funding options available to implement buffers on your property. At the Conservation District, we have the Exelon Habitat Improvement Program (Exelon HIP) as well as the Conservation Excellence Grant (CEG) that may be able to help with implementation and costs. Outside of the Conservation District there are several other entities that may be able to assist you in creating your buffer:

- NRCS & CREP
- Alliance for the Chesapeake Bay
- DCNR
- PACD

Melodie Jones

Resource Conservation Specialist I &

Emily Neideigh

Watershed Specialist

Trout Talk

Where can you find York County's trout?

There's nothing quite as satisfying as spending time in a cool stream on a hot summer day. Many of my fondest memories include hours spent fishing, walking creeks, and searching for crayfish in the mountain streams near my childhood home. While I would recommend that everyone spend some time in one of York County's beautiful streams this summer, it's important to know what you're walking into before dipping your toes in the water.

One way to evaluate the water quality of a stream is to look at the wildlife that lives in it. The species of macroinvertebrates (macros) and fish in a stream act like a living litmus test to gauge water quality. Aquatic macros such as mayflies, caddisflies, and stoneflies have a low tolerance for pollution. If you find these insects in a stream, the stream is reasonably healthy. Macros that have a higher tolerance for pollution include leeches, blackfly larvae, and midges. If you find these macros in a stream, but no species with lower tolerances for pollution, you may be in a less healthy stream.

Similarly, different species of fish have varying degrees of water tem-

perature and pollution tolerance. Generally, trout can only tolerate cold or cool water with low levels of pollution, whereas species like catfish can survive in warmer waters with more pollution. Because trout live in relatively cool, clean streams, regulatory agencies such as the PA Fish & Boat Commission (PFBC) and PA Department of Environmental Protection (DEP) use trout to help determine stream water quality.

The **brook trout** is the only trout species native to PA, and naturally lives in small cold streams. **Brown trout** were introduced to PA in the 1800s and have since become naturalized throughout the state. Brook trout and brown trout occupy similar habitats. While other species of trout are found in PA streams, most naturally reproducing trout populations consist of brook trout or brown trout.

When PFBC designates a stream as a "**wild trout water**" it means the trout found in the designated stream have resulted from natural reproduction (as opposed to stocking) and that the stream habitat supports wild

trout. Wetlands located in or along the floodplain of a wild trout stream are designated as "**exceptional value**" **wetlands**. "Wild trout waters" and "exceptional value" wetlands qualify for stricter environmental protection under DEP regulations.

There are 61 streams (approx. 268 linear stream miles) designated as wild trout waters in York County and the list continues to grow as more streams are evaluated. This is good news for York County water quality! Roughly 16% of York County streams have a wild trout designation. There are still healthy streams in York County that have not yet been assessed, so the number of wild trout streams in the county may grow. PFBC and their partners aim to evaluate the unassessed streams across the state through the **Unassessed Waters Initiative**.

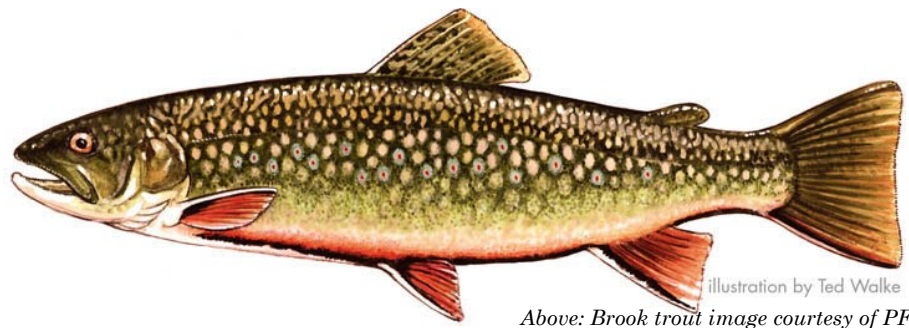
PFBC's complete list of PA Wild Trout Waters (Natural Reproduction) is on their website. Another useful tool on PFBC's website is the **Trout Streams Interactive Map**, which allows you to easily view stocked waters and wild trout waters.

Tiffany Crum

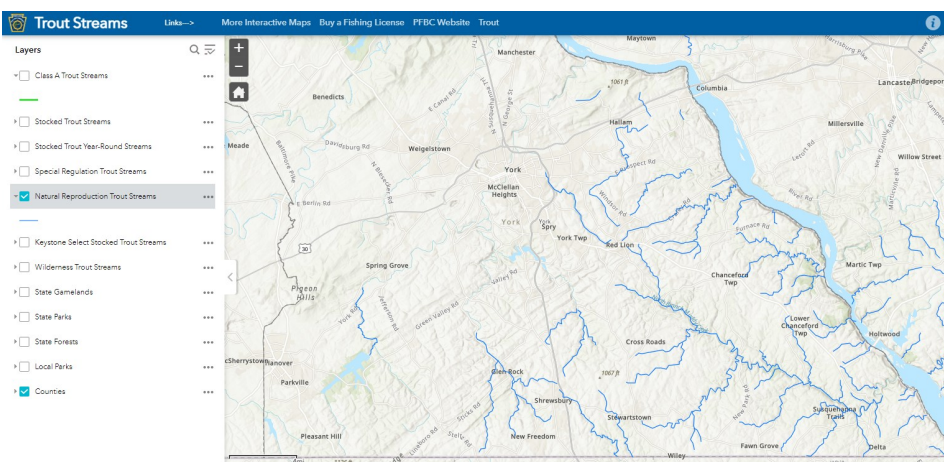
Resource Conservationist

Left: PFBC Trout Streams Interactive Map

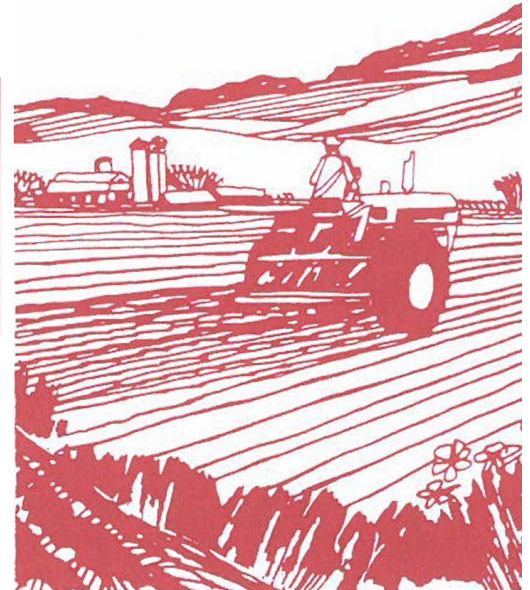
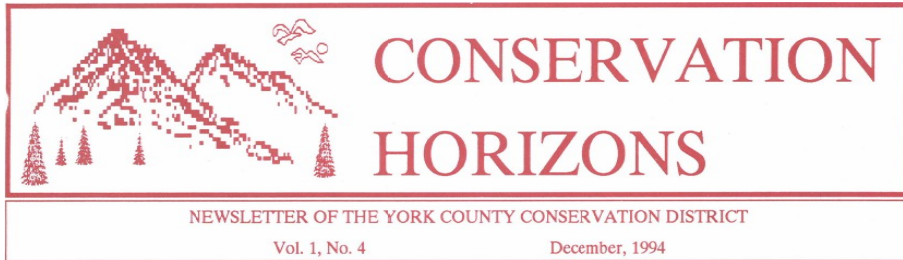
Below: Brown trout image courtesy of PFBC



Above: Brook trout image courtesy of PFBC



Archives Revisited



TEST YOUR SOIL - IQ

Test your knowledge of soil and water conservation.

Give yourself 10 points for each correct response.

- 90 points or better makes you a Senior Conservationist
- 80 points a Junior Conservationist
- 70 points a Conservation Trainee
- 60 points or less, keep reading *Conservation Horizons*!

1. He is considered the "Father of Soil Conservation:"

A Theodore Roosevelt B. Gifford Pinchot C. Hugh Hammond Bennett D. Aldo Leopold

2. Pennsylvania DER's Bureau of Soil and Water Conservation was established in:

A 1914 B. 1957 C. 1969 D. 1971

FUN FACT: DER was split into the DEP and DCNR by Act 18 of 1995.

3. If proper soil and water conservation measures are taken, farm productivity can last:

A 25 years B. 30 years C. 100 years D. indefinitely

4. In Pennsylvania, it takes an average of this many years to make one inch of topsoil:

A 25 years B. 30 years C. 40 years D. 50 years

5. The average depth of topsoil in this country is:

A 6 inches B. 12 inches C. 24 inches D. 36 inches

6. Soil erosion is caused by:

A. Water B. Wind C. Human activities D. All of these

7. These types of areas are vulnerable to erosion:

A Bare soils B. Sandy soils C. Streambanks subject to fast moving water D. All of these

8. Help to prevent erosion by:

A Mulching newly seeded areas B. Planting windbreaks and other vegetation
C. Limiting livestock access to stream banks D. All of these

9. In Pennsylvania, on average, heavy rainfall is most likely to cause erosion during:

A Spring and early Summer B. Fall C. Winter D. All of the time

10. When topsoil is lost, the land is more subject to:

A Insect problems B. Drought C. Neither A or B D. Both A and B

Answers on pg. 12

ENVIROTHON News & Results

York County Returns to an In-Person Competition.

This year the York County Envirothon returned in-person to Rudy Park for its 37th season! Over 700 students participated on nearly 125 teams across the four grade level events.

The Envirothon is the nation's largest environmental education competition. As an extracurricular activity, the Envirothon challenges students to study and compete outside their normal school responsibilities. Envirothon participation frequently results in pursuit of careers in environmental protection and resource conservation.

The York County Homeschool Tsugooose Canadensis placed 1st in the York County Senior High Envirothon and 6th in the PA Envirothon.

Thank you to all students, coaches, sponsors, partners, and volunteers! We look forward to seeing you again next year at the 2023 York County Envirothon!



2022 Results

Senior High

- 1st— YHSA Tsugooose Canadensis
- 2nd— Northern Nighthawks
- 3rd— York Catholic Duck Deck
- 4th— York Suburban Serendipitous Soils
- 5th— Susquehannock Sweetbay Magnolias
- 6th— York Suburban Crappy Crappies
- 7th— Spring Grove Wetland Warriors
- 8th— Northeastern Official Opossums
- 9th— Central York Current Issues
- 10th— West York Wildfire

Middle School

- 1st— SEMS Sleepy Bears
- 2nd— York Homeschool Squishy Mambas
- 3rd— York Suburban Bunny Bandits 2.0
- 4th— Central York Bossy Bullfrogs
- 5th— Dover Leaflets
- 6th— Central York Sitting Ducks
- 7th— York Suburban Sophisticated Squirrels
- 8th— Dover Tree Huggers
- 9th— Hanover Naturalists
- 10th— Northern Nuclear Newts

5th & 6th Grade

- 1st— Dallastown White Oak Wildcats
- 2nd— York Homeschool Competitive Copperheads
- 3rd— Spring Grove Nuisance Species
- 4th— South Mountain Red Pandas
- 5th— Dallastown Awesome Opossums
- 6th— Dover Elementary Creekside Critters
- 7th— Leib Elementary Rebel Raccoons
- 8th— Indian Rock Awesome Amphibians
- 9th— North Hills Squirrel Squad
- 10th— Spring Grove Delirious Deer

York County ENVIROTHON



3rd & 4th Grade

Gold Level:

Dallastown Inter. Crazy Coyotes
York Homeschool Frenzied Foxes
South Mountain Phat Fish
South Mountain Black Bears
Dallastown Inter. Brilliant Bears
Stewartstown Elem. Scary Squirrels
Dallastown Inter. Super Squirrels
Paradise Apex Predators
Leib Elementary Perfect Fishers
Legendary Loganville Wilderness Wildcats

Silver Level:

York Homeschool Redemption Rabbits
Indian Rock Flaming Foxes
Kreutz Creek Tadpoles
Weigelstown Elementary Enviro-Bears
Dillsburg Nature Force Club
York Township's Rad Red Foxes
Ore Valley Fabulous Foxes
Leaders Heights Outstanding Otters
Shrewsbury's Tyrannical Terrifying Trout
Dillsburg's Doe a Deer
Fawn Fearless Foxes
Indian Rock Smart Scats
Dallastown Elem. Curious Cottontails
Stewartstown Elem. Fierce Foxes

3rd & 4th Grade

Bronze Level:

East York Red Foxes
North Salem Elementary Axolotls
North Hills Marvelous Mushrooms
Saint John's Amazing Axolotls
Shrewsbury's Scary Scat Squirrels
Delta's Dangerous Clever Coyotes
Ore Valley Fantastic Fishers
Delta's Fearless Black Bears
Shallow Brook Fierce Bobcats
Wellsville Today's Paper Savers
Sinking Springs Wild Winners
Northern Elementary Polar Pals
Paradise Mighty Mammals
Fawn Fierce Flipping Fishers
Sinking Springs Nature Lovers
Saint John's Fighting Foxes
Shallow Brook Red Oaks
Roundtown Red Foxes
Northern Elementary Forest Friends
Wellsville Awesome Climate Crew
North Hills Decomposers
Leib Elementary Fintastic Fish

Thank You, Sponsors!

The 2022 York County Envirothon was made possible by the generous support of the sponsors listed above.

Our sponsors value the positive impact that the Envirothon has on the future of conservation in York County. We hope that you will consider joining this list of sponsors by supporting the 2023 York County Envirothon!

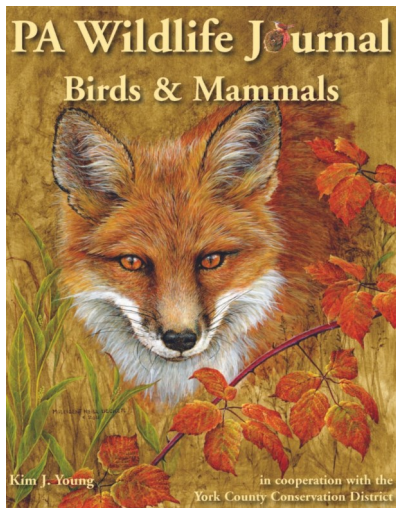
Call 717-840-7430 to speak with the Envirothon Coordinator about supporting the York County Envirothon.

Michael McKelvey

York County Envirothon Coordinator

Below: York Homeschool Tsugoose Canadensis proudly displaying their 1st place trophy.





Conservation Quiz Corner



Are you smarter than an Envirothon 5th Grader?

Answer the following to find out!

1. While all other turtles hibernate underwater in PA, which turtle can survive after having been frozen?
2. What do you call the young, coiled ferns that appear as new growth in the spring?
3. What is the name of the oil in poison ivy that causes rashes on humans?
4. When swimming underwater, what frog can lower its eyes to a level even with its head by pulling the eye sockets into the roof of its mouth?
5. What are the only mammals that can fly?

Check your answers on page 12

Wildlife Facts

Porcupine

- “As rodents, porcupines are the exception when it comes to raising young. Most rodents produce a lot of litters, reproducing quickly. Porcupines rarely give birth to more than one pup or porcupette each year.”

- “Many rodents only live for a year or so, but porcupines may live for 10–12 years in the wild.”
- “Porcupines cannot throw their quills. The quills are loosely attached and when they come into contact with something, they will detach and become lodged into whatever they contact.”



YORK COUNTY
CONSERVATION DISTRICT

Conserving Natural Resources for our Future

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Wildlife Facts includes excerpts & illustrations from the

PA Wildlife Journal: Birds & Mammals

written by Kim Young & York County Conservation District

PA Wildlife Journal focuses on Pennsylvania's birds & mammals. It's highlighted with professional artwork, photographs, and illustrations from hundreds of students across Pennsylvania and the United States. This unique book can be enjoyed by students of wildlife and casual readers.

The text includes the historical and current biology of the many species found in Pennsylvania.

Available for purchase on: **amazon**

York County Ag Land Preservation Program

Patty McCandless, Program Director 717-840-7400

2401 Pleasant Valley Road, Suite 101, Room 145, York PA 17402



The York County Ag Land Preservation Board received 56 easement applications in the 2022 Application Round for an estimated 5,232 acres (closing date 2/15/22). The program has a 24-month cycle, so the next round will be February 2024. The York County Board of Commissioners approved York's 2022 Allocation for Easement Purchase Funds (\$2,007,222.00) from a dedicated ag land fund on 1/19/22. The Commissioner's allocation was matched by the Commonwealth of PA (\$2,814,812.00) to assist with preservation efforts. We estimate to be able to preserve another 1,600 acres. Thank You Commissioners, Wheeler, Smith, and Hoke.

Application review is underway for the 2022 round. Each year we find applications that do not meet the eligibility requirements for preservation, such as farms that are not enrolled in their townships Ag Security Area (ASA). Some farms were not fully enrolled in the primary township, and other farms which lie in multiple townships are not enrolled in both townships. Landowners should enroll their farms in every township the farm is located in. Our office can assist with that info if requested; however, the process can take 180 days enroll in an ASA. Another issue we see is farms that do not have a current conservation plan,


or Ag E&S plan, that meets the requirements of the PA Clean Stream Law, Chapter 102. The plan must be current to the farm operator who is managing the farmland today. Please review your conservation plan with the York County Conservation District, or USDA-NRCS to see if your plan is current prior to applying for farmland preservation. Our agency no longer writes plans. Please ask for our conservation info packet to direct you to public and private plan writers.

In March, with funding from the Soil Health Stewardship Grant awarded by American Farmland Trust, our agency hosted two educational "Soil Health- Go Deeper" luncheons. The soil health luncheon, held at the Airville Volunteer Fire Hall on March 22, 2022 included 55 attendees, 25 of which are involved in operating local farms. The soils health luncheon, held at the 4-H Center, near Bair Station, on March 29, 2022, included 36 attendees, 17 of which are involved in operating local farms. Both luncheons included presentations on building soil organic matter, conservation planning and soil health, investing in the farm's future with cover crops, and decision ag solutions to help manage fertilizer rates and other management decisions within fields. We also had a farmer discussion about soil health practices, with three

farmers at each luncheon. Our agency plans to support the upcoming Ag Field Day on July 28, 2022, at Izaak Walton League, by bringing in several professionals and farmers to discuss soil health.

Our inspection duties continue. Landowners of preserved farms will be contacted to plan inspection visits. Landowners do not need to be present for the field walk but a phone interview generally occurs to update records. Landowners should contact the Ag Land Preserve Office with ownership or farm operator changes. Farm operators should share conservation plan updates as they occur.

Our search for an Assistant Director concludes with the hire of Eric Naylor. Eric was with our agency from 2013 to 2018. He rejoins us after 3 years in the Tax Assessment Office. Eric started in March and we are thrilled to have him back as I plan my October 2022 retirement. I have served the YCALPB and ag community, since May of 1990, and will leave the office with the satisfaction knowing the program is well funded today by the current Board of Commissioners leadership.

You can reach us at the York County Ag Land Preservation Office by calling (717) 840-7400, Monday through Friday 8 am to 4:30 pm. Find us on the web at www.yorkcountypa.gov, under Property and Taxes. 

CWA50K TRASH CHALLENGE

To celebrate the 50th Anniversary of the Clean Water Act

1 YEAR - 50,000lbs of TRASH COLLECTED from our waterways.

Will you help us?



CWA50k Trash Challenge

Did you know it's been 50 years since the Clean Water Act was signed? To honor this monumental anniversary, WAY is teaming up with our partners Lower Susquehanna Riverkeeper Association & Penn State Extension York Master Watershed Stewards to **remove 50,000 pounds of trash** from our waterways! It's a huge goal but we are confident we can achieve it with your help.

Stay tuned for **clean ups** in June, July, August, September, and October!

20th Annual Watershed Week

September 15th – 25th Events include:

- Tap Talk & Treevia
- Dam Bridge Challenge
- Pawpaw Festival
- Water Quality Monitor Field Visits



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

“By using good erosion-prevention practices, conserving water, land use management or simply planting a tree, we’ll each help make the world a better place for our children and grandchildren.”

- Mark Kimmel, fmr. YCCD Manager
Free Press (April 1990)

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Support Conservation.



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YCCD Calendar

July 2022

July 4..... Office Closed

July 14..... YCCD Board Meeting

August 2022

August 11 YCCD Board Meeting

September 2022

Sept. 5..... Office Closed

Sept. 8..... YCCD Board Meeting

Sept. 15..... DGLVR QAB Meeting

Sept. 16..... Sporting Clays Fundraiser

October 2022

Oct. 13 YCCD Board Meeting



*Conservation Quiz Corner Answers: (1) eastern box turtle (2) fiddleheads
(3) urushiol (4) bullfrog (5) bats*

*Test Your Soil IQ Answers: (1) C. (2) D. (3) D.
(4) B. (5) A. (6) D. (7) D. (8) D. (9) A. (10) B.*