

# FALL 2022 E-BLAST



# CLARION CONSERVATION DISTRICT



## Happy Autumn!

*by Hannah Bequeath, Education/Outreach  
Coordinator*

Cool mornings and nights, school is back in session, and pumpkins are being sold everywhere you go - it must be Fall! Summer was filled with many exciting events and accomplishments that we are excited to share with you. Be sure to check out the last page for more information on events we have planned this Fall including a Grazing Field Day, Rain Garden Workshops, an Autumn Hike, and more!

Our main goal at the District is to protect Clarion County's natural resources. Thank you for your interest in our efforts!

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Above: Watershed Wednesday Program Series. Left: Students assess the water quality of Tom's Run in Cook Forest State Park. Right: Students learn about ponds and wetlands at the Beaver Creek Nature Area in Knox.

## RECAP OF SUMMER 2022 EDUCATIONAL EVENTS

by Hannah Bequeath, Education/Outreach Coordinator

**June-** In June, the Summer Nature Program Series titled, "[Watershed Wednesdays](#)", was held for children ages 10-15 years old and provided weekly hands-on learning about our local watersheds featuring different types of waterbodies within the county. During the first few programs in the series, we met at Tom's Run, a stream in Cook Forest State Park, to discuss water quality and macroinvertebrates and then the Beaver Creek Nature Area in Knox to discuss ponds and wetlands. Also in June, a program was held titled, "[Clean Streams, Clean Oceans](#)" at the Clarion Free Library as part of their Summer Reading Program theme, "Oceans of Possibility". During the program, the students were guided in understanding how all water resources are connected and the quality of our streams here in PA impact our oceans too.

**July** ~ During July, the Watershed Wednesday program series continued at Kahle Lake-Clarion Access in Emlenton where we discussed turbidity, aquatic invasive species, and harmful algal blooms (HAB). Guest speaker, Brian Ensign, a Fisheries Biologist with the PA Fish & Boat Commission, gave a talk on the species of fish in the lake and how the lake is managed. The Watershed Wednesday program series ended with a canoe trip down the Clarion River as we discussed river creatures and the history of the river. Special thanks to Cook Forest Canoe Rental for the canoes! At the end of July, the Clarion Conservation District took part in the [Clarion County Fair](#) in New Bethlehem and showcased our programs as well as our new no-till planter that is available to rent for producers in Clarion County. Special thanks to our Board members who volunteered their time to help us at our table!

**August/Sept.** ~ August kicked-off with an [Invasive Species Scavenger Hunt Hike](#) at State Game Lands 63 in an effort to encourage more community members to participate in the annual iMapInvasives Invasive Species Scavenger Hunt. iMapInvasives is an online, GIS-based data management system used to assist community scientists & natural resource professionals working to protect our natural resources from the threat of invasive species. Also in August, we partnered with the Allegheny Hardwood Utilization Group (AHUG) on a [tree program for Girl Scouts](#) throughout the region looking to earn their Tree Promise badge. In an attempt to slow down and enjoy summer, a [backyard movie community event](#) was held at the CCD office in mid-August featuring PBS documentary, "The Reptiles: Turtles and Tortoises".



Above: Families gather for a backyard movie night behind the CCD Office featuring turtles and tortoises.

A second Summer Nature Program Series began titled, "[Fun on the Farm](#)", for children ages 5-9 years old. The programs provided an opportunity for the kids to learn about life on the farm through visiting local farms in the county and participating in hands-on activities. Special thanks to Annah Burke, Penn State Extension 4-H Educator, Mariah Huth, PSU Extension Intern, and Kaylee Knapp, the Clarion-Venango Dairy Princess, for partnering with us on providing the activities. In August, the students learned about beef cattle at Clarion Farms (Clarion, PA) and about growing fruits and vegetables at Saylor's Farm Products (Sligo, PA). The last two programs were in September at Sandy Ridge Farms (Shippensburg, PA) to learn about dairy cows and Bental's pumpkin patch (Marble, PA) to learn about berries and pumpkins.

Right: Graeme Smith of Clarion bottle feeds a calf at Clarion Farms at the Fun on the Farm: Beef Cattle program.



## TREE CAGES FOR SALE



Above: Tree cage protects the silky dogwood sapling growing at the Clarion Conservation District office.

Planting trees soon? The trunk of a tree is vital to its survival as it contains the transportation system for water and nutrients to move throughout the tree. Tree cages offer protection from browsing wildlife such as deer and therefore enhance the growth of the tree. The Clarion Conservation District is selling **small tree cages for \$0.25 each**. Call 814-393-6147 or email [hbequeathccd@gmail.com](mailto:hbequeathccd@gmail.com) at least one day in advance to order and we will have them ready for you to pick up at our office (249 S. 2nd Ave. Clarion, PA 16214). We are open M-F 8:00am - 4:00pm.



## RAIN BARRELS FOR SALE

Are you interested in a way to collect **free** water for your garden and/or flowers? Or maybe you have a lot of runoff coming from your roof when it rains causing large mud puddles all over your yard? A rain barrel is a system that collects and stores rainwater from your roof that would otherwise be lost to runoff and diverted to storm drains and streams.

The Clarion Conservation District has rain barrels for sale for **\$75 (includes barrel and rain barrel kit)**. They are repurposed barrels from Stello Foods in Punxsutawney, PA. The cost includes a kit complete with everything you need to set up the rain barrel on your downspout. Holes are not pre-made. CCD staff can drill the holes for you upon request.



Above: Rain barrel located at the Clarion Conservation District office. Artwork done by local artist, Cynthia Scandria.

Call 814-393-6147 or email [hbequeathccd@gmail.com](mailto:hbequeathccd@gmail.com) at least one day in advance to order one and we will have it ready for you to pick up at our office (249 S. 2nd Ave. Clarion, PA 16214). We are open M-F 8:00am - 4:00pm. Local artist, Cynthia Scandria, can paint a design on your rain barrel (such as the one below). Her contact can be given upon request to have yours painted.



## FEATURED SPECIES: JACK-O-LANTERN MUSHROOM (OMPHALOTUS ILLUDENS)

by Hannah Bequeath, Education/Outreach Coordinator

**General Description:** At first glance, you may think someone left an orange pumpkin to rot away in the woods, but as you look closer you will find that it is actually a mushroom! These bright orange mushrooms are typically found from July-October and have sharp-edged gills that descend the stalk. Their orange, smooth, solid, stalk is curved and darkens in color toward the base. Their smooth textured caps are often sunken in the center- sometimes becoming flat to funnel-shaped. They have yellow-orange gills that are narrow and nonbranching.

**Life History:** This mushroom begins as a network of fungal cells (mycelium) that look like tiny threads within rotting logs, branches or tree roots. The above-ground cluster of mushrooms are reproductive structures that release spores produced in the gills to begin new mycelia elsewhere. If you were to allow the spores to settle onto a surface underneath, they would appear to be cream colored. The spores are very small and can be better seen with a microscope. Fungus helps to keep the ecosystem healthy as it feeds on dead hardwood trees, decomposing fallen logs and branches. Not only do fungi clean up the dead woody debris from the forest floor, but they also help add nutrients back into the soil.

**Range and Habitat:** Jack-O-Lantern mushrooms are found in temperate woodlands and hardwood forests throughout Europe, parts of Africa, and North America. They are commonly found during the summer and fall in large clusters at the base of trees, on stumps, or on buried wood.

**Edibility:** Jack-O-Lantern mushrooms are poisonous and should not be eaten. If eaten, you will not die, but you will become very sick. Always be 100% sure of what species a mushroom is and their edibility before consuming one. This mushroom is commonly confused with the edible Chanterelle mushroom which smells like apricots and has forked gills that appear melted rather than the blade-like gills of the Jack-o-lantern. Jack-o-lantern mushrooms tend to grow in big groups with all of their stems attached. Chanterelles normally grow by themselves or in a small group with separate stems.

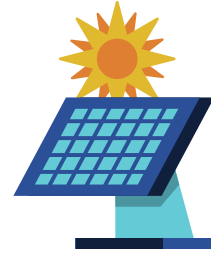
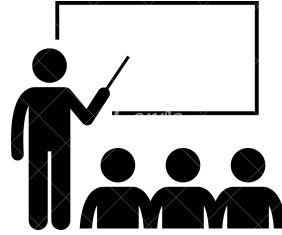
**Unique Characteristic:** Jack-O-Lantern mushrooms are said to be *bioluminescent* — the gills of fresh specimens may give off a faint greenish glow at night or in a darkened room! Roughly 80 species of mushrooms around the globe are bioluminescent, meaning they can chemically produce their own light. These mushrooms glow in a very similar way as fireflies, by producing a luciferase enzyme that glows when activated. Recent research suggests that the glow attracts insects, that help spread the mushroom's spores.



Left: The eerie glow of the bioluminescent Jack-O-Lantern mushroom (Wheeler-Dubas 2021).

### Sources:

- Chatfield, Jim and Curtis E. Young. *Jack-O-Lantern Mushrooms*. The Ohio State University- Buckeye Yard and Garden Online. Retrieved Sept. 27th, 2022 from <https://bygl.osu.edu/node/557#:~:text=Golden%20chanterelles%20are%20more%20yellow,be%20detached%20from%20the%20cap>.
- *Jack-O-Lantern*. Missouri Department of Conservation. Retrieved Sept. 27th, 2022, from <https://mdc.mo.gov/discover-nature/field-guide/jack-o-lantern>
- Wheeler-Dubas, Maria. *Mushrooms Aglow*. Phipps Conservatory- Blog. October 2021. Retrieved Sept. 27th, 2022 from <https://www.phipps.conservatory.org/blog/detail/biopgh-blog-mushrooms-aglow>



## EROSION AND SEDIMENT (E&S) UPDATES

*by Alicia Ramsey, DGLVR/E&S Technician*

- PAG-01, National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Stormwater Associated with Small Construction Activities Notice of Intent (NOI), was developed and effective as of March 2022. For more info, please contact the District or go to <http://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=288953>
- New NPDES Permits submitted to CCD
  - 2 utility line projects, a 2nd solar project, and 2 proposed site expansions
  - Received a permit modification to a commercial expansion project at Clarion Industries
  - Construction underway or soon to be for both the Stave Mill and the Cricket Fields!
- Attended the Clarion County Planning Commission's September meeting to suggest increasing training and education about what is required for various permits and land development applications within Clarion County.
- Attended a wetland training hosted by USACE, DEP, and NRCS to aid in wetland delineation/identification.
- Visited a solar site during construction to better understand the design and permitting process'.



Above: Attended the Clarion County Planning Commission's September meeting. Photo taken on Sept. 26th, 2022 by Ron Wilshire from Explore Clarion.

## DIRT, GRAVEL, & LOW VOLUME ROAD (DGLVR) UPDATES

by Alicia Ramsey, DGLVR/E&S Technician

- Attended and presented at the 101st Annual Township Convention hosted by the Clarion County Association of Township Officials (see photos to the right).
- **Grant Applications:** Due by December 8th for Clarion County. Projects must be reviewed by CCD before submitting. For more information on filling out the form, contact Alicia Ramsey at the information below or visit <https://dirtandgravel.psu.edu/pa-program-resources/program-specific-resources/blank-forms/>
- For more information on the CCD DGLVR Program, please visit our website [www.clarionconservation/dglvr](http://www.clarionconservation/dglvr) or contact our DGLVR Technician, Alicia Ramsey, at [ramseyccd@gmail.com](mailto:ramseyccd@gmail.com) or call 814-221-4094 (cell), 814-393-6139 (office).



Above: 101st Annual Township Convention held at Trinity Point Church in Clarion on September 22nd.

### Featured Project: Stream Crossing in Washington Township

During July and August, a stream crossing project was completed on Gowdy Road located in Fryburg, PA (see above photos). The failing, undersized culvert was replaced with a prefabricated modular bridge set on spread footer abutments and stream restoration was completed to allow continuity of McCauley Run, an Exceptional Value (EV) stream, through the road profile. This project was funded by the Clarion Conservation District's Dirt and Gravel and Low Volume Road (DGLVR) Program. Design assistance and construction oversight were provided by Trout Unlimited (TU), the Penn State Center for Dirt and Gravel Road Studies (CDGRS), Clarion Conservation District, and Washington Township.

Below: Stream crossing project on Gowdy Road in Washington Township.



# District Watershed Updates

by: Tricia Mazik, Resource Technician

## Paint Creek: Watershed Assessment

- Two broad samples were completed in Paint Creek, one for chemistry and one for flow rates. Forty sites have been sampled throughout the watershed. To learn more about why we are assessing Paint Creek, see our Summer 2022 Newsletter at [www.clarionconservation.com/district-news](http://www.clarionconservation.com/district-news).

## Clarion County Park: Treatment System Overhaul

- Construction is underway at the Clarion County Park's Abandoned Mine Drainage (AMD) Treatment System. Guiste Excavating was hired to reconstruct the vertical flow pond and expand the first settling pond to 13,000 sq. ft. Stay tuned for an upcoming educational tour of the system!



Above: Abandoned Mine Drainage (AMD) in the Paint Creek Watershed.

Right: Construction at the Clarion County Park AMD Treatment System.



## What is Abandoned Mine Drainage (AMD)?

### What is AMD?

Water that is polluted from contact with mining activity, normally associated with coal mining. Fluids can be highly toxic to humans, animals, and plants.

### Why is it harmful?:

Problems associated with mine drainage include contaminated drinking water, disrupted growth and reproduction of aquatic plants and animals, and the corroding effects of the acid on parts of infrastructures such as bridges. AMD streams are not able to support most aquatic life.

### Where does it come from?:

Mine drainage is formed when pyrite (an iron sulfide) is exposed and reacts with air and water to form sulfuric acid and dissolved iron. The iron can precipitate to form the orange sediment in the bottom of streams. The acid runoff further dissolves heavy metals such as copper, lead, and mercury into groundwater or surface water. The rate and degree by which acid-mine drainage proceeds can be increased by the action of certain bacteria. Abandoned wells act as conduits for artesian flow, bringing sulfide-polluted water to the surface.

### How is it treated?:

The basic concept of an AMD treatment system is to raise the pH level of impacted waters and remove metals. AMD can be treated actively or passively; active treatment being more expensive and passive taking more time. During passive treatment, AMD discharge is directed to a buried bed of high quality limestone. The effluent water comes out alkaline so when it is exposed to air, iron drops out quickly and is captured in a series of settling ponds. During active treatment, AMD discharge is directed to a silo containing lime where at timed intervals, a "dose" of hydrated lime, caustic soda, or soda ash is added. The water is then directed back to the stream.

### Sources:

- *How does mine drainage occur?* USGS. Retrieved Oct. 4, 2022 from <https://www.usgs.gov/faqs/how-does-mine-drainage-occur>
- *Abandoned Mine Drainage.* EPA. Retrieved Oct. 4, 2022 from <https://www.epa.gov/nps/abandoned-mine-drainage>

## UPCOMING EVENTS

**\*\*To register for any of the following events, please use the contact info below.\*\***

### October

- **Oct. 12th - Gardening For a Changing Climate: Workshop 1** (see flyer to the right). We have extended the RSVP deadline to 10/10 - sign up today!
- **Oct. 14th - Grazing Field Day** (see flyer to the right)
- **Oct. 21st - Autumn Nature Hike** - Redbank Valley Trail, Meeting location TBD, from 9 - 11:00am. Register by Oct. 20th
- **Oct. 26th - Gardening For a Changing Climate: Workshop 2**

### November

- **Nov. 2nd - Leaf Lantern Craft Night** - At the CCD office from 5-6pm. Limited to 15 participants. Register by Oct. 26th. (see picture to the right).

### December

- **2nd Annual Farmer's Breakfast** - More info coming soon!

For more information on our upcoming events please view our [Facebook](#) or [Instagram](#) page, our [website](#), or contact us at [hbequeathccd@gmail.com](mailto:hbequeathccd@gmail.com) or [814-393-6147](tel:814-393-6147).

### IMPROVING LAND WHILE LOWERING COSTS

Wilson Land & Cattle Co  
1417 Stizinger Rd, Tionesta

Friday, October 14th  
8:30 a.m. - 3:30 p.m.

Please bring a refillable water bottle  
Biosecurity measures will be observed

**Sponsors:**

**Register by Oct. 7th**  
Space is limited, early registration is advised  
**\$15.00** registration fee, lunch included  
You may RSVP at 814-393-6147 or [www.clarionconservation.com](http://www.clarionconservation.com)  
Mail below information and checks payable to:  
**Clarion Conservation District**  
249 S 2nd Ave  
Clarion, PA 16214

**Registration Form:**  
Name (s): \_\_\_\_\_ Phone: \_\_\_\_\_  
Email: \_\_\_\_\_

Please contact us with any request for special accommodations.

**Continuing Education Credits Available:**  
• 3.5 Nutrient Management  
• 4 Certified Conservation Planning

**PRESENTERS:**

- **Russ Wilson**  
Field tour highlighting methods and results of intensive rotational grazing and ways to lower costs.
- **Bonnie McGill**  
Soil health as a climate change solution and how grazing systems help producers adapt to weather extremes will be shared.
- **Brett Chedzoy**  
Silvopasturing and alley cropping will be discussed with strategies for making pastures more profitable.
- **Fay Benson**  
Demonstrations with a Soil Health Truck including a rainfall simulation and more.
- **Matt Havens**  
Ways to monitor healthy soils in your grazing system by identifying what they look like, and the relationship between soils and livestock.

**Additional speaker information can be found at [www.clarionconservation.com](http://www.clarionconservation.com)**

Financial and other support for the NPS Mini-grant Program is provided by the Pennsylvania Association of Conservation Districts, Inc. through a grant from the Pennsylvania Department of Environmental Protection under Section 319 of the Clean Water Act, administered by the U.S. Environmental Protection Agency.

## Grazing Field Day

Register by Oct. 7th

To register, call 814-393-6147 or sign-up online at <https://www.clarionconservation.com/events>

Mail checks payable to: Clarion Conservation District (249 S. 2nd Ave. Clarion, PA 16214)

### Raingarden Workshops

Register by Oct. 7th

To register, call 814-393-6147 or email [hbequeathccd@gmail.com](mailto:hbequeathccd@gmail.com)



### GARDENING FOR A CHANGING CLIMATE

A FREE two-part workshop for homeowners and business owners

**Workshop 1: October 12th 5-7:30pm**  
C&A Trees (53 Tree Ln, Clarion, PA) | Refreshments will be provided.  
Join us to learn about the impacts a changing climate has on properties, such as flooding and increased invasive species, customize a rain garden plan to your property with the guidance of professionals, and help create plant species labels for the Clarion Conservation District's (CCD) public rain garden.

**Workshop 2: October 26th 4:30-6:30pm**  
Clarion Conservation District Office (249 S 2nd Ave. Clarion, PA)  
Visit the Clarion Conservation District's public rain garden and help the CCD staff install more native plants, species labels, signage, and wildlife habitat structures assembled by Cub Scout Pack # 51. Participants will receive a voucher to come to the CCD office in the spring to receive a free native plant and species label.



Above: Leaf Lanterns

**Register by Oct. 7th**  
To register, contact Hannah Bequeath at 814-393-6147 or email [hbequeathccd@gmail.com](mailto:hbequeathccd@gmail.com)  
Space is limited, early registration recommended.

**Partners:**

Financial and other support for this project is provided by the Mercer County Conservation District through a grant from the Shenango Climate and Rural Environmental Study Team (SCREST) and the Carnegie Museum of Natural History, administered by the National Science Foundation.

Do you know someone that is interested in receiving the Clarion Conservation District newsletters?  
To subscribe or unsubscribe, please contact us at [hbequeathccd@gmail.com](mailto:hbequeathccd@gmail.com) or call 814-393-6147.