August 2021 Volume 3, Issue 3



# Dirt On the District

## **2021 Lawrence County Fair Week**

We are anticipating great attendance at the
Lawrence County Fair during the week of **August 16th -21st!**While out seeing family, friends, animals, the exhibits and getting your fill of fair food treats; stop by our table to see what we have been up to in the past year. Display of 2020 Photo Contest Winners will be available to view along with pictures that highlight our projects around the county.

It's always an educational experience to talk with our Staff and see what the Conservation District provides for the County Community!



#### **Annual Photo Contest**

We are now accepting entries for the **2021 Photo Contest**. Entries will be accepted until **January 14th, 2022** 

In an effort to support the conservation of our natural resources, we believe it is important to allow the public an opportunity to showcase what they feel are Lawrence County's finest natural resources.

To participate in the Annual Photo Contest you will find an entry form and contest rules on our website **www.lawrencecd.org**.

All entries can be mailed or personally delivered to the Lawrence County Conservation District Office.

If you intend to deliver the photos in person, please call ahead to Jeannie Shay at 724-333-2817

Jeanette Robison "Hummingbird in full Kaleidoscope"

2020 Submission





# Lawrence County Conservation District

430 Court Street New Castle, PA 16101

Phone: 724-652-4512 Fax: 724-657-2008

E-mail: <a href="mailto:lcd@lawrencecd.org">lcd@lawrencecd.org</a>
Website: <a href="mailto:www.lawrencecd.org">www.lawrencecd.org</a>



**@Lawrence County Conservation District** 



## **2021 Nature Camp**

Expectations for fun and education were surpassed during our Annual Nature Camp Week hosted by the Lawrence County Conservation District that was held at Ewing Park in Ellwood City July 26th - 30th.

11 campers entering grades 3rd through 6th attended with high enthusiasm. Six attendees were from the previous years.



Monday's Theme was "Eating our Earth". The day started with a Wild Edible Educator, Andrew Palumbo. He brought a breakfast treat made with chestnut flour and maple syrup and a tea made with flowers. Later campers enjoyed the scavenger hunt and craft. To finish the afternoon, Travis Gates our Ag Technician, offered a lesson on the layers of landfills. Campers prepared their own "Edible Landfill" using pudding, cookies, marshmallows and many other ingredients meant to symbolize the trash layers of a landfill. Educational and Tasty!



"Helpful or Harmful" was the theme for Tuesday. Lessons included education on Bees and Mosquitos. Our Local Beekeeper, Ted Starmack, brought tools of the trade and an observation beehive. Campers had the chance to see bees hard at work and even witnessed an emerging bee. Upon which the entire group broke into the "Happy Birthday" song for this new bee. It was the highlight of the day! As our craft, we made "Save the Bees" bracelets and insect viewers. Jeannie Shay, Education Technician, facilitated a lesson on Mosquito identification and the concerns with their ability to contract diseases to humans.









Wednesday "Creek Critters" began with a lesson by Mary Burris, our own Watershed Specialist, about what to expect to find in the Creek. Campers used illustrations pages provided in their Journals to help work through the lesson.



Next our special guest was Jackie McCullough, an educator from Mercer County Conservation District as well as her intern Tori. They did lessons and games that helped define and illustrate a Watershed and address water conservation. All staff helped as we took the campers down to the Creek to explore Macroinvertebrates.

Campers got the chance to catch many different "critters" including Stonefly, Mayfly and Caddisfly nymphs. Naturally they found many crayfish and minnows.







#### **Environmental Outreach**

The District provides environmental education programs to both adult and youth audiences. The district hosts a variety of programs such as **Summer Nature Camps** but also conducts programs throughout the year by request.

To help fund educational programs, the district has an *Annual Spring Seedling Sale*. The sale is between February - March with orders being available for pick up in April.

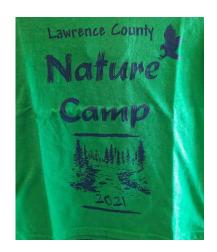
# Donations Are Needed

Consider a Donation to our **Summer Nature Camps**.

Donations of Check or Cash can be mailed in or personally delivered to the Conservation Office.

Checks payable to Lawrence County
Conservation District or LCCD

Credit Card Payments are also accepted through PayPal – lcd@lawrenceconservationdistrict.org





## **2021 Nature Camp continued**

Thursday's theme was "Let's get Wild", the emphasis in the morning was identifying the furs and scat of local wild animals. Campers were excited by the Bear Rug and softness of the Bobcat fur.

Our special presenters were Cassidy Baker, 4-H Educator from the Penn State Extension Office with her Intern Dylan. Their lesson focused on Soil Conservation. Later our own Travis Gates, Agriculture Technician, did a lesson about different soil types. To finish the day campers made Scat replicas out of tootsie rolls... eww, but they loved it!





Friday had "Varied Views" and began with a Fish Painting class lead by Jeannie Shay, Educator Technician. Supplies were donated by Casey K Creations. Each painting was a true "work of art"! One artist gave her fish a "Bob Ross" hairdo!

Next our special guest was Bryan Crable Ph.D. - Microbiologist, guided campers in making stained slides to view with microscopes.

Campers enjoyed the process and seeing the microscopic results.... Pun intended!



We finished the day with a pizza party, T-shirts, sunglasses, group photos and sharing of journal pages from the week.



Each year this camp is successful due to team effort. Behind the scenes was staff Jillian Court, E&S Technician, who helped plan, market and provide supplies to us as needed. Also our District Technician, Becca Naber and District Manager, Joann McCready filled in as help too.

Be sure to check out our Facebook page for more photos from the week!

Special Thanks to all of our presenters and donors during camp week!!

Your time and expertise are appreciated and were a
huge addition to the learning experience!

**Andrew Palumbo** - Wild Edible Educator

Ted Starmack - Local Beekeeper

Jackie McCullough - Mercer County Conservation District

Cassidy Baker - Penn State Extension 4-H Educator

Bryan Crable Ph.D. - Microbiologist

Sponsors for 2021: Michael Joseph State Farm Insurance Casey K. Creations Paintings and Ceramics

# **Environmental Education at OLMC Camp**

#### Who remembers Camp Elliott?

For years Camp Elliott operated as a Girl Scout Camp located in Wilmington Township just outside of Volant in Lawrence County. In 2017 the Girl Scout Camp closed due to poor attendance and was put up for sale. Fortunately, in December of 2020 Dry Bones Ministries purchased the camp and renamed it "Our Lady of Mt. Carmel Camp and Retreat Center" (OLMC camp). Over this summer in July, they offered four weeklong day camps for students entering 1st - 7th grade. Accommodating upwards of 50 campers each week. Some campers were local and a majority were bussed in from Pittsburgh. The purpose was to offer an "adventure type" camp with Mass and prayer mixed in each day.

The camp director, Lisa Haldio, was looking for an educator to help implement an outdoor environmental lesson. She was directed to Jeannie Shay, Education Technician, and the two were able to implement a plan. Each Tuesdays of July Jeannie would have 4 different groups of campers come through for about 35-40 minutes and learn about watersheds, stream health, Crayfish, Salamanders and various Macroinvertebrates. Campers over the three weeks found more than 15 different bugs and animals. Fun was had by camp counselors as well. It became the highlight of the week for most campers.













## Soak up the Rain - At Home

#### What is Stormwater?

Very simply, stormwater is all of the rain that does not soak into the ground. According to the Penn State Extension, Pennsylvania gets an average of 41 inches of rain per year. In a forested area, eighteen inches of rain will soak into the ground per hour but a lawn will only soak up two inches per hour. Everything that doesn't soak in runs off your property, into the storm drain and into streams and rivers.

That doesn't sound like it should be a problem but unfortunately it is. The water running off your property joins the water running off of everyone else's and picks up speed. Along the way, it can erode exposed soil or streambanks and pick up nutrients like nitrogen and phosphorus, as well as toxins like road salt, gasoline, motor oil, pesticides, and trash sending them into the waterways.

These nutrients, toxins, and sediment are collectively called Non-Point Source (NPS) pollution and they all have a negative effect on the aquatic life in the stream. Sediment churned up in the water makes it hard for fish to breathe and when it settles, it can smother the nesting areas of fish and \*macroinvertebrates that the fish need to feed on. In addition, sediment can also cause the temperature of the water to increase and fish need cold water. Warming water also contributes to harmful algae blooms that make water toxic to all life.

If you don't have a well, your drinking water comes from these waterways. Water authorities have to filter pollutants before we can drink it.

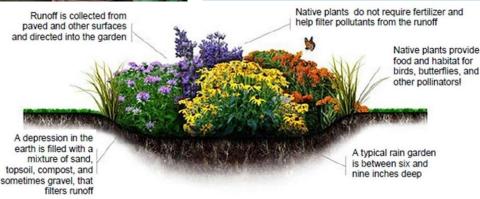
\*Macroinvertebrate: small aquatic animals and the aquatic larval stages of insects. They include dragonfly and stonefly larvae, snails, worms, and beetles. They lack a backbone, are visible without the aid of a microscope and are found in and around water bodies during some period of their lives.

#### What can we do?

- · Plant more trees one larger canopy tree can absorb around a thousand gallons of water each year.
- · Convert part of your property or lawn to meadow. Ornamental grasses, perennials, and shrubs soak up much more water than lawns and reduce your need to mow.
- · Install a rain garden or dry well to capture runoff from your walkways, patios, driveways, and roofs.
- · Install a dry creek to channel water and reduce runoff.
- · Install rain barrels or cisterns to capture runoff from your roof.



Rain barrels are containers that collect and store rain water from roofs and downspouts for future use. Water collected reduces runoff and water pollution, helps recharge groundwater, lowers your water bill, and conserves water.



Rain gardens can turn this...



...into this!



A rain garden is a small depressed planted garden area that serves as temporary water retention after a storm. They recharge the water table by allowing the rain to soak in rather than run off and filter out Non-Point Source (NPS) pollution like nutrients, oil, gasoline, and pesticides.

## Dirt, Gravel and Low Volume Roads Program

Summer of 2021 in the Dirt, Gravel Low Volume Road Program started with a continuation of work started in Shenango Township on Chewton West Pittsburg Road. During the last few construction seasons the municipality worked with Becca Naber, District Technician, on the installation of new and replacement of existing drainage pipes on the road.

One of the goals of the program is reduce sediment to our area waterways. Often it is necessary to add additional cross pipes to minimize stormwater's erosive force when it enters the ditches running parallel to the road right of way. Minimizing the

distance stormwater travels in the ditches helps move stormwater through the watershed with less chance of eroding the ditches and outlets where the water flows.

During the construction activities, District staff and municipal road crews also take the opportunity to adjust or modify the angle of the pipe replacements to help the stormwater enter the pipes with lessened impact on the road banks. All of these practices are actively being used on the project underway in Shenango Township.

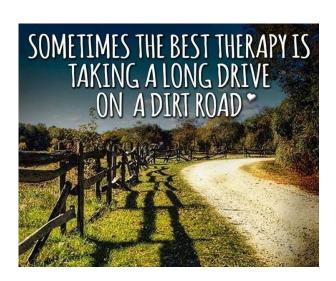
In addition to the changes made to the drainage on the roadway, repairs will be made to some areas of road bank failure. Once all of the drainage and stability issues have been addressed, DSA will be placed. The final road surfacing will likely occur sometime later this summer.



Replacement of a cross pipe and installation of new headwalls in Shenango Township.

Technical assistance with drainage and planning of projects for next year will occupy the rest of the summer. Mahoning and Shenango Township have expressed interest in completing work next year and Becca Naber, District Technician, will assist the municipal crews with layout, budgeting, and the application process.

Our office would like to encourage any and all municipalities who are interested in projects for the 2022 construction season to get in touch with **Becca Naber**, **District Technician**, at **bnaber**@lawrencecd.org



#### **Erosion & Sediment Control**

# Chapter 102 Erosion & Sediment Control

There are many factors that affect erosion such as soil characteristics, vegetative cover, topography, and climate. For example, soils with greater fine sand and silt content are the most erodible whereas soils with more organic matter improves stability. Also, vegetative cover is important to reduce soil erodibility because the vegetation's roots hold the soil particles in place. These factors are complicated further when construction activities take place.

# Erosion Problems Associated with Construction Sites

Land development often expose soils to increased stormwater runoff. The shaping of land for construction purposes changes the soil characteristics which is detrimental to infiltration and runoff patterns. Erosion can be increased to 10 or more times the natural rate which can be harmful to surrounding properties and receiving waterways.

There are serious potential hazards that can occur due to a construction project including:

- Increased exposure of soil to erosive forces.
- Increased volumes of stormwater runoff, accelerated erosion and sediment yield, and higher peak flows caused by:
  - ⇒ Removal of vegetation.
  - ⇒ Exposure of underlying soil which are more erodible than the surface soil.
  - ⇒ Soils reduced capacity to absorb rainfall due to compaction by heavy equipment.
  - ⇒ Enlarged drainage areas caused by grading and stormwater conveyance facilities.
  - ⇒ Prolonged exposure of disturbed areas due to scheduling problems.
- Alteration of the groundwater regime which affects drainage systems, slope stability and vegetative survival.
- Exposure of subsurface materials that are unfavorable to the establishment of vegetation.

Erosion best management practices (BMPs) and postconstruction BMPs are implemented to mitigate these hazards.



How to Apply for NPDES Permits

NPDES permits are required for earth disturbances greater than 1 acre.

Step 1: Contact an environmental engineer for assistance filling out the application.

Step 2: Visit DEP's "E&S Resource" webpage for permitting forms and instructions. www.dep.pa.gov.

Step 3: Visit our website at www.lawrencecd.org to download LCCD's E&S Pollution Control Plan Fee Schedule.

Contact E&S Technician Jillian Court at jcourt@lawrencecd.org or 724-714-3315 with questions.

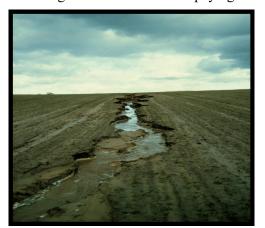
#### **Agriculture Best Management Practices**

#### **Cover Crops**

With harvesting season right around the corner it is never to early to plan on cover crops. The harvest of low residue row crops, such as corn silage or soybeans, usually means the soil surface of a field will be left bare until the next crop is planted and a new plant canopy is established. In Lawrence County the next planting may be 5-7 months away. That's a long time for the bare soil to be subjected to erosion caused by rainfall, snowmelt or wind. For that reason, cover crops are usually established and grown in the fall months, and remain during the winter.

Cover Crops not only protect the soil from erosion but also have other benefits. A cover crop regimen will increase soil organic matter, leading to improvements in soil structure, stability and increased moisture and nutrient holding capacity for plant growth. These properties will reduce runoff through improved infiltration. Also cover crops will increase soil quality by improving the biological, chemical, and physical soil properties. A cover crop can provide high-quality material for grazing livestock or having and can provide food and habitat for wildlife, beneficial insects, and pollinators.

In Pennsylvania, farms are eligible for REAP (**Resource Enhancement & Protection Program**). This program helps eligible farms in PA with paying for cover crops along with other best management practices in the form of tax credits.



For more information about REAP and cover crops please contact
Travis Gates, Agriculture Technician at 724-656-2473 or tgates@lawrencecd.org



# **Kid's Corner!!**



#### Fun Facts Learned at Nature Camp

- The Most Deadly animal in the world is the Mosquito.
- A frog doesn't "Drink" water, instead a frog absorbs water through its skin.
- Worker Bees only live 6-8 weeks. In order to have a hive create enough food for the winter, the Queen Bee may lay up to 2000 eggs in a day during the summer.
- Poison Ivy can mimic the tree it is growing on. Its vine can look like a fuzzy rope stretching up a tree.





Michael G Joseph, Agent 1614 Highland Avenue New Castle, PA 16105 Bus: 724-652-9806 www.agentmichaeljoseph.com Your home and car are more than just things. They're where you make your memories – and they deserve the right protection. I get it. It's why I'm here. LET'S TALK TODAY.



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The Lawrence County Conservation District Board of Directors and Staff would like to thank 2021 Sponsors for their generous donations. Education efforts are made possible with your support and help sustain our organization and benefit the community we serve.

Our goal is to educate and promote interest in the conservation of our natural resources to all community members.

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Contact us for rates! <u>Jshay@lawrencecd.org</u>

The "Dirt on the District" is emailed quarterly to over 400 individuals and businesses in Lawrence County and is published on our social media outlets and webpage.



#### Help our Facebook Grow!!

Invite your family and friends to "Like" our page as we strive for 1000 Followers before January 2022!!!

