

On the cover: The mountain waters of Church Run, located in Millstone Township, Elk County, rush over rocks and boulders, forming shadowed pools and lively cascades, as they make their way to meet the Clarion River. Photo By: Kate Wehler, District Manager

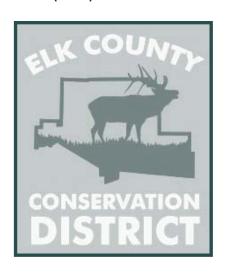
Elk County Conservation District

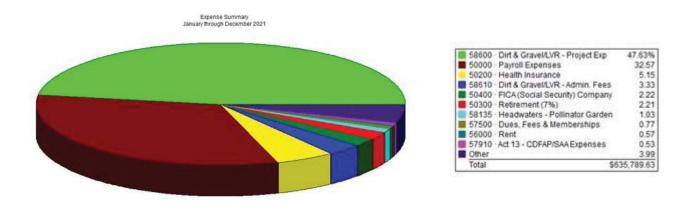
Elk County Community Recycling Center

850 Washington Street

Saint Marys, PA 15857

(814) 776-5373





In 2021 the District's greatest expense was for projects under the Dirt, Gravel, and Low Volume Road Program. This program puts money on the ground, in Elk County, to improve our roadways in an environmentally sensitive manner. Our second largest expense was payroll.



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Directors & Staff

New staff additions in 2021

The Elk County Conservation District saw many changes in 2021, some of which included the addition of several new team members.

The First of which was Micaela Lefever, who joined the team in July of 2021 and came aboard as our new watershed specialist. Micaela graduated in the spring from Penn State with a degree in Environmental Resource Management and minors in Watershed and Water Resources and Environmental Soil Science.

Maddie Stanisch joined the team in November taking over the Chapter 102: Erosion and Sediment Control program for the District. Previously Maddie worked at the McKean County Conservation District for 3 years doing invasive plant management.

Last, but certainly not least, the District welcomed Carole Johnson as our new office secretary. Carole comes to us from St. Marys Stone Mulch and More, where she worked for the past 9 years.

We're excited to have a full team once again and are looking forward to seeing what new challenges and adventures 2022 holds for us!

District Staff

Ryan Grimm- Resource Conservation Technician

Maddie Stanisch- Resource Conservation Technician

Micaela Lefever- Watershed Technician

Victoria Challingsworth- Resource Conservation Technician

David Stubber - Solid Waste Enforcement Officer

Carole Johnson- Secretary

Associate Directors

Jim McCluskey
J. Jerome Olson

2020 Board of Directors

Russ Braun- Chairman

Mike Hovatter- Vice-Chairman

Joe Labant- Secretary/Treasurer

Joe Daghir- Commissioner

Chris Smith- Public Director

Andy Sorg- Farmer Director

Ray McMinn- Farmer Director

County Commissioners

Joe Daghir M. Fritz Lecker Matthew G. Quesenberry, Sr.



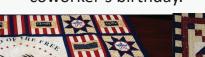


As if 2021 wasn't challenging enough, the Elk County
Conservation District and the Elk County Community
Recycling Center lost one of the most important members of
our team, our secretary and friend, Diane Myers, who
passed unexpectedly in October.

Diane did so much for the District, having been with us for 12 years, much of it she could have done with her eyes closed. Helping staff coordinate grant financials, compiling and submitting quarterly reports, payroll, and taxes were only a few of the things she did, in addition to the countless tasks she did for Elk County Community Recycling Center. As we work to pick up where she left off we find ourselves wondering how she did it all.

In addition to her invaluable work, Diane was easily one of the most talented quilters and crafters around, and numerous pieces of her work still hang about the District office. She was one for creating little gifts for staff and surprising them. Whether it was a baby blanket, a table runner, or a door hanger, they were always beautiful and thoughtful.

Starting anew has been challenging, and even though we're plodding on, Diane is still missed. As we miss her, we remember her fondly, as a friend and colleague, as someone kept this office running like a well oiled machine, who ALWAYS made sure the back door was locked, who loved to create and craft, and who never forgot a coworker's birthday.











West Creek Wetlands Learning Center

The West Creek Wetland Learning Center (WCWLC) is a unique educational opportunity located in St. Marys, PA. The Elk County Conservation District manages and maintains this property on behalf of the County of Elk.

Currently, the WCWLC boasts a groomed walking trail, 5 native pollinator gardens, a beautiful pavilion and a wetland viewing deck. The District hopes to add more to the wetlands in the future with the possible expansion of trails and perhaps the addition of new wetland viewing facilities.

Located on West Creek road near several of St. Marys' large industrial facilities the walking trail and pavilion are frequently used by employees on their lunch breaks. The wetland complex is one of the only parks in St. Marys with a water resource making it a beautiful place for families,



outdoorsmen, and individuals to come and walk or view wetland wildlife. In addition to all the public use, the District also uses the wetlands as a resource to educate students and as a place to host field trips.

The Power of Pollinator Education

In May of 2021 the District finalized a two-phase project focusing on pollinator education. The project was funded through the Headwaters RC&D Council. During phase one, the District staff and volunteers planted 5 native pollinator gardens and native shrubs at the West Creek Wetland Learning Center.

Phase two followed which involved 20 classes of 1st and 2nd grade students from Elk County schools raising Painted Lady butterflies in their classrooms. The students read books about pollinators, learned about butterfly lifecycles, and grew to understand why pollination is important. The butterflies that the classrooms raised were then released during a series of release evenings, held in May, at the West Creek Wetland Learning Center. Over 400 individuals were educated as part of this program.



2021 Senior Envirothon

Three schools participated in the annual Elk County Envirothon competition, held virtually in 2021 These schools were St. Marys Area High School, Elk County Catholic, and Johnsonburg Area High School. The categories in which the students participated were soils, forestry, aquatics, wildlife, and a current issue category which is changed yearly. St. Marys-Team A won the county competition, moving on to represent the County in the 37th annual state

event. At states, St. Marys-Team A held their own, and placed 23rd out of 58 teams in the state competition! The winning team Elk County team received a hammock for all members from the Elk County Conservation District and a trophy. All participants received an environmental themed sticker, purchased from local artist, Mickayla Poland, of PA Made. Despite the challenges of competing virtually, the students gave the 2021 Envirothon their all



and the District was excited about the outcome. However, we're all looking forward to inperson competitions in 2022!



Ist Place: St. Marys Team A (SMAHS)

Zachary Mosier, Collin Kline, Luke Gutowski, Caleb Mattiuz, and Andy Deprater 2nd Place Team: St. Marys Team B (SMAHS)

Rosa DePrater, Caitlin Blessel, Jenna D'Amore, Shannon Kaiser, and Matthew Wehler

2021 Junior Envirothon

The Elk County Conservation District held our 7th Annual Jr. Envirothon on April 15,

2021. This event was held at the St. Marys Area Middle School in their outdoor classroom. Five teams competed in the event with a total of twenty- two participants.

The participants ranged from sixth to eighth grade. The categories in which the students participated were soils, aquatics, forestry, and wildlife. It was a close competition, as the winning team won by only four points! The all students were awarded environmental themed stickers from PA Made and the winners received first place certificates.



2nd Annual Conservation Cup



Held on June 5th at the Bavarian Hills Golf Course in St. Marys, PA, the District was excited to host our 2nd annual Conservation Cup. With a great turnout and excellent weather, the event was a success. This full 18 hole golf event, which includes a catered dinner and raffles, helps the District enhance our community outreach by funding environmental education efforts. This year, thanks in part to a generous donation from Seneca Resources, we were able to raise \$3,550 to be used for the continuation of our Elk County Conservation District Scholarship and environmental education programs.

The 2021 tournament winners were Seth Peterson, Shane Williamson, Anthony Imbrogno, and Matt Walters. Tim Frank, of St.Marys, won our major raffle item of a cooler which came with two "swanky" camping chairs. Thanks again to all who attended the event. Mark your calendars for the 3rd annual Conservation Cup, slated for June 4th, 2022

Elk County Conservation District Awards Conservation Scholarship

The 2021 recipient of the Elk County Conservation District Scholarship was Anthony Whitaker. Anthony, a Kersey native, is transferring from Slippery Rock University to Penn State Dubois in the fall. He was studying safety management at Slippery Rock but has decided to switch course and has enrolled in the wildlife science and fisheries program at Penn State. Whitaker wrote, "I believe an environmental career is what I was born for and

that I can make a difference." The District wishes Anthony the best of luck and can't wait to see the positive environmental impacts he will have.



Above: Russ Braun and Kate Wehler award Anthony Whitaker with ECCD's Conservation Scholarship

ECCOTA NATURE WALK

As one of the District's numerous environmental education outreach efforts the Elk County Conservation District joined Elk County Council on the Arts (ECCOTA) staff on June 29th to take part in one of their summer programs.

Conservation District staff took participants on a nature walk at Sandy Beach Park in Ridgway, PA. During our walk we identified common

wildflowers in our region, learned to identify several toxic and invasive plants, and discussed about different tools that can be used to identify plants when you may be unsure.



This walk was day one of a 3 day ECCOTA program where students would collect flowers, leaves, small pebbles, and other natural items. After collecting, they learned to press flowers and made resin crafts from their recently acquired flowers.

SUMMER S.T.E.M. CAMP: WATER DAY!

On July 1st, Elk County Conservation District Staff, led a program for students participating in St Marys Parks And Recreation Summer STEM Camp. STEM stands for science, technology, engineering, and math. Over the course of the week, summer camp attendees focused on different aspects of the natural world. ECCD staff assisted with Water Day, to educate nearly 30 students. The District taught students about the water cycle and the different steps. Afterward, students were able to explore how water moves and how it picks up pollutants using Enviroscape tables. Enviroscape tables allow students to see the water cycle at work, by modeling rainfall events and the result of runoff and infiltration.





Elk County Upcycled Art

The District is always looking for new ways to engage the community and provide fun, unique environmental education opportunities. In honor of Earth Day 2021, the Elk County Conservation District hosted a county-wide Upcycled Art Competition. This Challenge encourages local children and adults to make art pieces from recyclable materials or upcycle old products they had laying around the house.

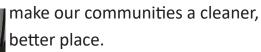
The District was so pleased with the projects and excited to see the creative vision of so many people. Some entries are pictured to the right, and included a turtle made from old silverware, a ship in bottle, and airplane from rolled paper, and a poster with flowers cut from old soda cans. Prizes were awarded to the winners in the 3 age groups. The District can't wait to see what the community comes up with next year.



Conservation Callout Trash Cleanup

In honor of Earth day, which fell during Conservation District week this year, the Elk County Conservation District issued a challenge to other Districts across the state. The "Conservation Callout Trash Clean-up and challenged all the Conservation Districts in Pennsylvania to see who could pick up the most trash.

Staff in Conservation Districts all across PA did their part to





Here in Elk County we spent several afternoons picking up trash on local roadways and we were surprised with how much we found. We collected over 220lbs of trash and 13 bags of garbage, some of the more notable items included a clothes iron, tires, and a muffler.

CONSERVATION, COCOA, AND CRAFTS

On December 17th The Elk County Conservation District held an event called "Conservation, Cocoa and Crafts", where families could enjoy an evening of conservation-minded activities. The District was amazed by the community response and had over 70 individuals register for the event.

Children in attendance listened to a reading of "Stranger in the Woods". After hearing the Story, the group split in two and participated in nature themed crafts. At one station kids made pinecone birdfeeders with peanut butter and birdseed. At the other station children made a "field guide" full of images of birds and other creatures they might find enjoying their birdfeeders.



Left& Below:
Attendees show
off the crafts
they
completed during the event





District staff read
a story and help
the children
complete their
crafts

Adult attendees had their own craft to complete, using hemlock boughs. Participants put together evergreen door swags for the holiday season. As part of this they also had the opportunity to learn about Hemlock Woolly Adelgid, an invasive insect that is killing Hem-

lock trees in Pennsylvania. After seeing what the insect looks like on an infected branch the District hopes they'll be able to identify this insect if they see it in their own neighborhood and help us fight the battle against invasives.



Abandoned Mine Drainage Workshop: A Success

Conservation Districts across the state are uniquely positioned to provide services that best address issues in their communities. Here in Elk County, Abandoned Mine Drainage (AMD) is a commonly seen issue in local streams, due to the history of mining in our region. Because of this, the Elk County Conservation District felt there

was a need to provide education on the topic of AMD. While most know what AMD is to see it, many individuals don't really understand what it is or what it means for stream health.

Partnering with the Western Pennsylvania Conservancy (WPC) and utilizing grant funding awarded by the Pennsylvania Association of Conservation Districts, we were able to host an informative evening workshop followed by a tour of WPC's recently completed treatment system on Cherry Run in Force, PA. During the tour, attendees saw how the systems runs, grew to understand the difference between a passive and active system, and learned what they can do to get involved in improving their local watershed.



Above: Eli Long, from WPC, discusses how the system is run using a solar powered computer set-up

Below: Attendees learn what the different points throughout the AMD system are and what they do



Clarion River Mussel Survey

Starting just past the county line and working our way upstream into Elk County, representatives from the Elk County Conservation District (ECCD), Pennsylvania Fish and Boat Commission (PAFBC), Western Pennsylvania Conservancy (WPC), IUP Graduate Students, and the US Forest Service conducted a mussel survey.

This survey was being conducted to see if mussels are naturally reproducing in the Clarion, after being stocked at several sites from 2015-2017. The goal was to see if stocked mussels had survived and if they had been able to reproduce yet.

This was done by snorkeling, and at times using scuba gear. A "digger" wearing snorkeling gear held a quadrant and would dig loose substrate, or

stream bed material, in

an area into a bag. The bag of material was given a tag based off of where in the stream the material had been acquired. This helped to keep track of where mussels were found. Once completed, the digger would move on to the next quadrant and the bag would be taken to the sifting station.

At the sifting station the material would be poured onto a metal screen and sifted through for mussels. The juvenile mussels we were looking for are small, about 1/2 an inch long and oblong in shape. Finding juveniles would provide evidence that mussels were naturally reproducing in the Clarion.

If a mussel was found it was placed in a smaller bag with the tag and set aside to be cataloged, measured, and documented after the site was completed.



Above: Digger places the quadrant and digs substrate during a mussel survey

Below: Substrate is sifted in search of mussels



Above: Mussels are identified, measured,

and documented

While doing the survey, no juveniles were discovered. There are several possibilities as to why none were found. Mussels are sensitive, so it likely would have taken several years for them to acclimate after being stocked. Additionally, the past several years have been hard years, weather-wise, with either record droughts or record high water. All of these things place stress on the mussel and its ecosystem which could inhibit reproduction. And of course, its entirely possible we just didn't find them. The survey is



Above: An adult mussel blends in with natural substrate.

just that, a survey, the entire bottom of the clarion wasn't scoured looking for juvenile mussels. The survey is conducted in a way to achieve the most accurate results without consuming large amounts of time. Even if we had scoured the entire bottom we may have missed them! They excel at camouflage, as you can see in the picture above. It's necessary to avoid predators such as river otters.

Some may wonder why we are interested in mussel reproduction. Turns out mussels are an important member of the ecosystem. They act as a natural filter for water and are often an indicator for water quality. So while we didn't find any juvenile mussels, we did find many of



Above: Several species of mussels are displayed for Identification

the stocked mussels from years prior. The fact that they are still alive and healthy after 5-7 years is a good indicator of stream health and we can only hope that in coming years we will find evidence of reproduction.

Mussel Facts:

Can you eat native mussels?

While technically, yes, you can eat these native mussels, many native mussel species are protected because they are a species of concern.

In addition to that, while you can eat them, they don't taste very good. Remember they are a natural filter for toxins! To top if off, after they die they release a chemical making them taste even worse! Yuck!

How many species of native mussels are there in Pennsylvania?

67

Species of freshwater mussels call Pennsylvania home. However 13 have not been seen in decades and another 10 are currently considered endangered.

Elk County Adds Two New Murals

Right: Artist Mickayla Poland works on her latest mural located at the Kersey Park Below: The newest mural located In front of the St. Marys Boys and Girls Club, completed by artist Liz Dippold







The upstream art project reached an outstanding number of people, with over 30,000 people being reached virtually. The number continues to grow with the addition of general foot traffic, which passes through the areas the murals are located. These murals were a fun and well-received way to spread the word about storm water.

These two murals wrap up our current grant project for Upstream Art murals, but we hope to do more in the future. The District's goal is to have one in all the communities to not only beautify our communities but also raise stormwater awareness within Elk County.

Scan to learn more about Stormwater!

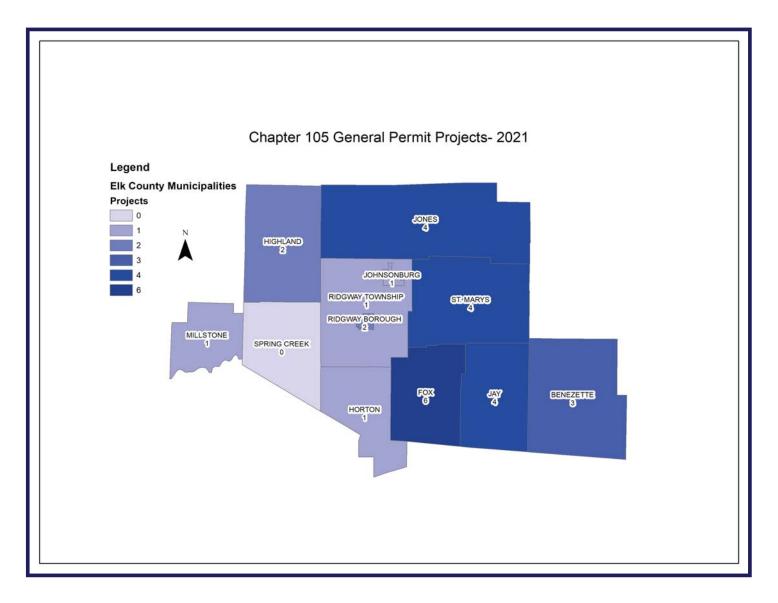


To make these wonderful creations last as long as possible, concrete specific paints and a concrete sealer were used. Thank you to Sherwin Williams for providing a generous discount on paint and supplies, as well as the unparalleled product advice. Here's to many more years of looking at these masterpieces!

Chapter 105 Stream and Wetland Crossing Program Updates

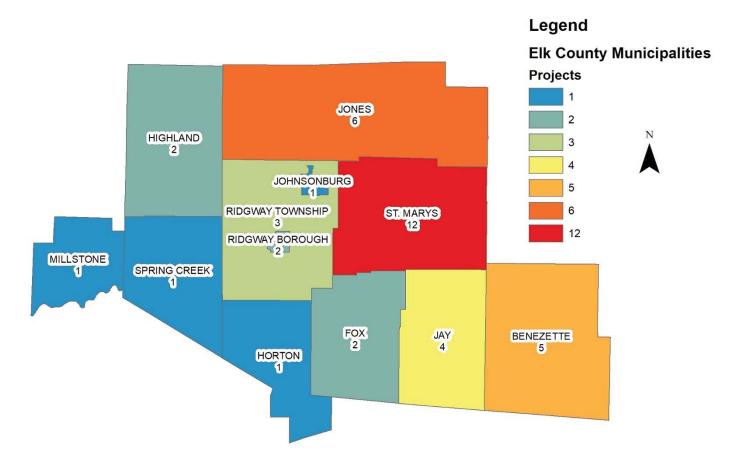
Over the past 3 years the General Permit (GP) numbers in Elk County have been increasing. Issuing 20 permits in 2019, and 24 permits in 2020, the District, once again saw an increase, issuing 27 General permits during 2021. This year the permits were predominantly utility line crossings(GP-5) and stream bank stabilization projects (GP-3). A dispersal map by municipality is provided below.

These permits were issued under the Chapter 105 program which deals specifically with work in and around streams and bodies of water. Elk County is one of 31 counties who are Chapter 105 delegated in Pennsylvania. Victoria Challingsworth, Resource Conservation Technician, handles the 105 program for the county.



Chapter 102 Program

Erosion and Sedimentation Projects - 2021



In 2021, the Elk County Conservation District received 40 Erosion and Sedimentation project applications. Of those projects, 9 were NPDES general permits and 31 were Erosion and Sedimentation plans. All Elk County municipalities had projects in 2021. Millstone Township, Spring Creek Township, Horton Township, and Johnsonburg Borough had one project each and the City of Saint Marys had 12 projects.

As construction began to increase again post-pandemic, project numbers rose in comparison to 36 projects in 2020.

A prominent project in Elk County that comes with added benefits is the Weedville Cell Tower. This project will allow residents in the area to receive cellphone service where they were not previously able to get signal.

Maddie Stanisch, Resource Conservation Technician, joined the district in November 2021 and is heading the Chapter 102 program for the county.

Annual SFI Workshop

Each year Conservation Districts in our area team up to provide a Sustainable Forestry Initiative (SFI) Workshop. This workshop educates loggers, foresters, and members of the Timber Industry. The primary focus of the workshop is "Erosion Control in Our Forests" and discusses best management practices for timber operations; regulatory information and updates; permitting needs; other current environmental considerations; and a field portion to look at real-life BMP scenarios and challenges faced on timber harvest sites. The workshop also offers SFI credits for attendees to maintain their SFI certification.

This years' workshop was held in Potter County at the PA Lumber Museum, an ideal location for a workshop of this nature. Nearly 50 individuals from across the region attended the 2021 SFI workshop. Representatives from Elk, Cameron, McKean, Potter and Tioga County Conservation Districts were present in addition to representatives from SFI, DCNR, and the USDA.

Last year, as with many things in 2020, the



Above: Attendees tour a logging site and discuss Best Management Practices to reduce erosion

workshop had to be held virtually, with a virtual field portion. While we were pleased with the turnout on 2020, everyone a

portion. While we were pleased with the turnout on 2020, everyone agrees it was nice to once again be able to provide an in-person workshop!

Multi County Contractor Workshop

In November the Elk County Conservation District joined Armstrong, Indiana, Jefferson, Clarion and Venango Counties in providing a Contractor workshop for interested companies and businesses. During the workshop, District staff and representatives from Penn DOT and the Pennsylvania Department or Environmental Protection presented on topics pertinent to contractors conducting earth moving activities.



Topics such as Chapter 102: Erosion and Sediment Control regulations, Chapter 105: Stream and Wetland permitting regulations, Act 167 Stormwater regulations and information on compliance and enforcement actions were addressed. The workshop was a free to contractors, put on by the Districts to raise awareness and educate local contractors about state regulations.

2021 Kane Area Logger's & Sawmiller's Safety Meeting

This year the 52nd annual Kane Area Logger's & Sawmiller's Safety Meeting was held on June 3rd at the Flying Dove Ranch, in Ridgway, PA. The Elk County Conservation District was invited to set up a booth and talk with members in the hardwood industry. The District talked about typical interactions, permit requirements, and BMP's for timber harvesting practices.

According to the Kane Area Logging Safety Committee:

"With nearly 150 in attendance, the Kane Area Logging Safety Committee was pleased by the turnout for their 52nd annual event. While normally held in April during spring breakup, the day-long meeting was moved to June and held at an outdoor facility this year in light of Covid. The group offered pipeline safety and Spotted Lanternfly training, which earned participants both PA SFI continuing education credit and a Spotted Lanternfly permit from the PA Dept. of Agriculture. With over 100 permits issued, this was a very successful KALSC/SFI training session, and with the expansion of SLF into Cameron County, a very timely one as well. The guest speaker for the evening was



Sam Lincoln, a professional logger from VT who left his private practice for several years in order to advocate within state government to improve safety training and workers comp rates for VT loggers/log haulers. His presentation was followed by an update on PA's efforts to address similar issues. Program updates were provided by AHUG and PA SFI, as well as guest commentary from US Congressman "GT" Thompson and the office of PA Representative Marty Causer."

Clarion River Tree Planting

In Conservation, partnerships are important. The Elk County Conservation District is thankful to have wonderful partners in our community who aim



to make a positive impact on our ecosystem. One of our common community partners is Domtar Paper. Late this fall the District teamed up with Domtar to plant trees in the riparian zone along the Clarion River in Johnson-burg, PA. The location of the planting had a streambank stabilization project completed a few years prior and these trees are one of the final components to help establish a stabilized bank while providing ecological benefits. After numerous setbacks due to

Covid-19, everyone was excited to finally get the trees in the ground and we look forward to watching them establish in the years to come.

Elk County DGLVR Pushes Bottomless

In recent projects the Elk County DGLVR program has noticed an underlying problem with some of our stream crossings. Getting stream bed material into and stay in a culvert pipe is not only difficult but expensive. With a bottomless culvert the recreation of the natural stream bed is much quicker. Additionally, without water flowing against the structure itself, it is expected the lifespan will increase as well. We are excited to implement another bottomless structure this summer with the City of St.Marys. In 2021, the DGLVR program provided \$191,286 in funding for four implemented projects which totaled \$416,723 in overall value.

Before After





ABOVE: The Elk County LVR (Low Volume Roads Program) along with the Forest Service, Western PA Conservancy, and Millstone Township replaced a failing culvert where Church Run flows under River Rd in Millstone Township. The failing/undersized crossing was replaced with a new bottomless arch culvert that will not only handle high water events drastically better, but also allows for aquatic and terrestrial passage up stream. This will allow organisms to travel from the Clarion River all the way to the mouth of Church Run. The overall project value was \$208,601.

DGLVR: Project Highlight



The DGLVR program funded a road improvement project this summer in Fox Township to mitigate erosion of Gardner Hill Road. Along this stretch of road, active springs and runoff have combined to create a massive erosion issue in the roadside ditch. The members of the program and township workers decided to get creative and use a product called Flex-a-mat to help stabilize this roadside ditch. Roadside ditches are not normally where you would see this product but its versatility and ability to halt erosion has made it a perfect fit for solving this erosion problem! Total value of this project was \$102,552.90.

Cooperating Agencies & Organizations

The Elk County Conservation District works closely with many local, state and federal government agencies as well as many non-profit organizations. We greatly value these partnerships and collaborative conservation efforts they provide. The following is a partial list of some of our partnering agencies and organizations:

Allegheny National Forest

Marienville Ranger District 131 Smokey Lane Marienville, PA 16239

Army Corps of Engineers

East Branch Lake 631 East Branch Dam Road Wilcox, PA 15870

DCNR Bureau of Forestry

Elk Forest District 258 Sizerville Road Emporium, PA 15834

DCNR Bendigo State Park

533 State Park Road Johnsonburg, PA 15845

Keystone Elk Country Alliance

950 Winslow Hill Rd Benezette, PA 15821

PA Dept. of Environmental Protection

North West Regional Office 230 Chestnut Street Meadville, PA 16335

PA Dept. of Environmental Protection

Knox District Office 310 Best Avenue Knox, PA 16232

PA Fish & Boat Commission

North Central Region Law Enforcement 595 East Rolling Ridge Drive Bellefonte, PA 16823

PA Fish & Boat Commission

North Central Region Outreach & Education 450 Robinson Lane Pleasant Gap, PA 16823

PA Game Commission

North Central Region P.O. Box 5038 Jersey Shore, PA 17740

USDA Natural Resources Conservation Service

478 Jeffers Street, Building 3, Suite D DuBois, PA 15801

PA Association of Conservation Districts

25 North Front Street Harrisburg, PA 17101

Headwaters Resource Conservation & Development

109 North Brady Street, 2nd Floor DuBois, PA 15801

Western Pennsylvania Conservancy

Allegheny Regional Office 159 Main Street Ridgway, PA 15853

PA Department of Agriculture

Western PA Region 6 McIntyre Road Gibsonia, PA 15044

PA Department of Transportation

Elk County Maintenance Department 32 St. Leo Avenue Ridgway, PA 15853

US Fish & Wildlife Service

PA Field Office 315 South Allen Street, Suite 322 State College, PA 16801

North Central PA Regional Planning & Development

49 Ridgmont Drive Ridgway, PA 15853

Western PA Coalition for Abandoned Mine Reclamation

266 Donohoe Road, Suite 110 Greensburg, PA 15601