

# Elk County Conservation District 2017 Annual Report



Photo by Resource Conservation Technician, Kate Yetzer



# *Directors & Staff*

## **2017 Board of Directors**

Russ Braun, Chairman  
Mike Hovatter, Vice-Chairman  
Jerry Olsen, Secretary/Treasurer  
Matt Quesenberry, Commissioner  
Joe Labant, Public Director  
Andy Sorg, Farmer Director  
Ray McMinn, Farmer Director

## **Associate Directors**

Jim McCluskey  
Chris Smith

## **Director Emeritus**

Ron McMinn

## **County Commissioners**

Matt Quesenberry  
Daniel Freeburg  
Janis Kemmer



## **District Staff**

**Steven Putt**- District Manager

**Kate Yetzer**- Resource Conservation Technician

**Kelsey Kilhoffer**- Resource Conservation Technician

**Stephanie Stoughton**- Watershed Technician

**David Stubber** -Solid Waste Enforcement Officer

**Diane Myers**- Secretary

Pictured above (L-R): Stephanie, Kelsey, Diane, Kate, & Steve in their ugly Christmas sweaters

# 55 Years of Conservation



**Above:** A historical photo of the Conservation District board members from 1970

**Bottom Left:** District Manager, Steve Putt, accepts a Certificate of Recognition for the District's 55th Anniversary.

**Bottom Right:** A photo of 5 of the 7 voting Conservation District board members. Shown L-R: Matt Quesenberry, Russ Braun, Jerry Olson, Mike Hovatter, & Ray McMinn



# District Welcomes New Staff



Stephanie Stoughton, hired in September 2017, is the new Watershed Technician. Stephanie received her master's degree in Biology from the University of Central Arkansas, while working as a teaching assistant. Her primary roles at the District will include: environmental education, water monitoring & sampling, stream & aquatic habitat improvements, and acid mine drainage reclamation.

Stephanie is happy to be living back in PA after living out-of-state for the last 3 years. She enjoys fishing, hunting, and spending time on her family farm in Butler County. She loves living in Elk County and working to conserve water resources.



Kelsey Kilhoffer was hired as a Resource Conservation Technician in October 2017. Kelsey graduated from Shippensburg University with a master's degree in Geoenvironmental Studies. She had previously worked at the Alleghany County Conservation District. Her primary roles at the District will include: environmental education, Geographic Information Systems, and agriculture & forestry assistance.

Kelsey is a native of Elk County and enjoys camping, kayaking, and coaching cheerleading. She also volunteers at the Island Run Sportsmen's Club Trout Nursery throughout the year.



# The Patriot

Coming soon  
to a site near  
you.



In 2017, the District  
purchased a 2016 Jeep  
Patriot.





The Elk County Conservation District's 6th Annual Les Haas Memorial Trail Challenge was held on September 23 at the Laurel Mill Cross Country Ski Trail. This year 57 runners and walkers showed up to tackle this (slightly) muddy event.

In the 7K event, Diane Wolfe took the Overall Female winner award and also set a new course record with a time of 41:25! Ethan Swope was the Overall Male winner in this category.

In the 14K event, Lucy Anthony was the Overall Female winner and Brady Bouche was the Overall Male winner.

The District would like to thank our sponsors for this event, which included: REBCO, Inc., Country Squirrel Outfitters, Jordan's Bar & Grill, Straub Brewery, Dairy Queen, Northwest Savings Bank, Allegheny National Forest, & Jan Haas.



### 7K Overall Results

1. Ethan Swope	20-29 M	Pittsburgh, PA	31:31
2. Russ Micale	20-29 M	St. Marys, PA	36:20
3. Rob Redden	50-59 M	Curwensville, PA	37:19
4. Matt Gildersleeve	40-49 M	DuBois, PA	38:46
5. Joe Benden	40-49 M	Brockport, PA	39:57
6. Gregory Burns	60+ M	Ridgway, PA	40:37
7. Diana Wolfe	40-49 F	Johnsonburg, PA	41:25
8. Kathy Lampman	50-59 F	Ridgway, PA	41:33
9. Linnea Stager	20-29 F	Ridgway, PA	42:11
10. Jack Beyer	0-14 M	Kersey, PA	42:12
11. Chuck Boyer	40-49 M	Kersey, PA	42:13
12. Jason Belsole	30-39 M	St. Marys, PA	42:43
13. Megan Foster	20-29 F	Bradford, PA	43:51
14. Jackie Candalar	50-59 F	St. Marys, PA	47:41
15. John Butterfuss	50-59 M	Ridgway, PA	48:54
16. Stephen Spinda	50-59 M	Kersey, PA	48:55
17. Renee Freidhof	50-59 F	New Stanton, PA	51:13
18. Julie Lang	40-49 F	St. Marys, PA	51:42
19. Sally Villella	50-59 F	Punxsutawney, PA	52:42
20. Dawn Luvaas	50-59 F	St. Marys, PA	53:25
21. Scott Colson	40-49 M	Kane, PA	54:00
22. Melissa Gornati	20-29 F	Kersey, PA	54:35
23. Sarah Colson	40-49 F	Kane, PA	1:01:37

### 14K Overall Results

1. Brady Bouch	0-14 M	St. Marys, PA	1:07:05
2. Sean Craig	40-49 M	DuBois, PA	1:09:45
3. Rick Gabler	40-49 M	St. Marys, PA	1:12:30
4. Barry Andruonis	40-49 M	DuBois, PA	1:14:36
5. Nick Mitchelltree	30-39 M	Ridgway, PA	1:19:02
6. Lucy Anthony	15-19 F	St. Marys, PA	1:19:43
7. Frederick Ferguson	40-49 M	Osceola Mills, PA	1:22:30
8. Larie Hall	40-49 F	Morrisdale, PA	1:22:36
9. Ken Huey	60+ M	Kersey, PA	1:23:50
10. Tim Andruonis	50-59 M	DuBois, PA	1:23:52
11. Eugenia Clark	40-49 F	Emporium, PA	1:24:32
12. Gina Graham	40-49 F	Clearfield, PA	1:28:20
13. Bill Granche	60+ M	Ridgway, PA	1:31:27
14. Jill Raubenstrauch	30-39 F	DuBois, PA	1:31:43
15. Dustin Rhoads	30-39 M	Erie, PA	1:34:37
16. Amanda Alborts	30-39 F	DuBois, PA	1:35:25
17. Emily Mitchell	20-29 F	Ridgway, PA	1:37:40
18. Martha Bralkowski	30-39 F	Ridgway, PA	1:39:00
19. Aimee Kemick	50-59 F	Ridgway, PA	1:42:12
20. Donald Weis	50-59 M	St. Marys, PA	1:42:52
21. Milki Quattrone	20-29 F	Ridgway, PA	1:43:12
22. Travis Sallack	20-29 M	DuBois, PA	1:44:11
23. Lorraine Crocco	50-59 F	Weedville, PA	1:46:28
24. Rob Singer	50-59 M	Kersey, PA	1:57:22
25. Jessica Shannon	30-39 F	St. Marys, PA	2:00:15
26. Lindsey Weidow	30-39 F	St. Marys, PA	2:17:09





# 3<sup>rd</sup> Annual Clays for Conservation

The Elk County Conservation District's 3rd Annual Clays for Conservation event was held on July 16th, 2017 at the St. Marys Area Sportsmen's Club. This year showed a turnout of 31 shooters.

The 1st place overall shooter was Gary Krieg, with a score of 66/75. The 1st place overall female shooter was Katelynn Decker, with a score of 49/75. Lastly, the 1st place youth shooter was Robbie Bobenrieth, with a score of 63/75. None of the place winners in 2017 had previously placed at this event.



Kate Yetzer, Resource Conservation Technician- *"Community events like this wouldn't be possible without the support of generous local businesses, individuals, and organizations. The St. Marys Sportsmen's Club, the Benezette Hotel, Dr. Gorlowski, The Superior Trap & Skeet Team, my family (future and current), and other ECCD staff members consistently and freely donated their time, resources, food, & encouragement and this event would not be possible without them. I sincerely appreciate all they have done and continue to do."*

Funds generated from this event will be used for the Conservation District's environmental education programs such as the Jr. Envirothon, 4-H summer camp activities, West Creek Wetland Learning Center programs, etc. Additionally, the Conservation District uses this money to help the St. Marys Sportsmen's Club send local students to Conservation Camp. This is a once-in-a-lifetime opportunity for local students to work alongside conservation organizations and to learn about the field of conservation, while gaining hands-on experiences.

Bottom Left: 1<sup>st</sup> Place Overall winner, Gary Krieg is shown receiving his award from Resource Conservation Technician, Kate Yetzer.

Bottom Right: Participant, Tj Wehler, shoots a clay pigeon during the competition. For the 3rd straight year, the weather could not have been any more perfect. The day started out in the 60's and climbed to the mid 70's. It was partly cloudy and comfortable, but most importantly, dry.



# Elk County Envirothon

Ten teams from Elk County Catholic, Ridgway, and Johnsonburg High Schools competed in the 2017 Elk County Envirothon. Competitors were tested on their knowledge of forestry, aquatics, soils, wildlife, and the 2017 current issue- "Soil and Water Conservation."



**1st: Elk County Catholic**

Charlie Bobby  
Jared Braun  
Mitchell Cashmer  
John Mader  
Dan Stauffer



**2nd: Ridgway**

Cassie Cook  
Vincent Cristini  
Devin Gilmore  
Cole Luchs  
Jovana Marzella



**3rd: Johnsonburg**

Zach Hodgdon  
Austin Hoover  
Michael Miller  
Kacey Raubenstauch  
Phil Ship



**Above: Participants filled the St. Marys Sportsmans Club the morning of May 10th, 2017 for the competition.**

**Below: Game Commission officers gather to grade tests. Students had the opportunity to interact with many environmental industry professionals throughout the course of the event.**





# 4th Annual Elk County Junior Envirothon

The Elk County Conservation District held the 4th Annual Junior Envirothon on May 3rd, 2017 at Bendigo State Park. Five teams participated in this event from schools including St. Marys Area Middle School and Elk County Catholic Middle School. The students' knowledge in Forestry, Wildlife, Aquatics, and Recycling was tested at each station. The 1st, 2nd, and 3rd place teams won awards and all participants were given t-shirts. Additionally the District provided lunch to all participants and volunteers.

Special thanks to DNCR and Bendigo State Park for assisting at the Junior Envirothon and allowing the use of their facilities, Luke Bobnar and the Western Pennsylvania Conservancy for facilitating the Aquatics stations, and Bekki Titchner, Recycling Coordinator with the Elk County Solid Waste Authority, for facilitating the Recycling station.



**Left:** The first place team from St. Marys Area Catholic Middle School and their instructor; Mrs. Tia Meredith



**Above:** Students work to identify various species of fish at the Aquatics station.



**Left:** Participants from St. Marys Area Middle School, Elk County Catholic Middle School, instructors, volunteers, and Conservation District Staff gather for a group photo at Bendigo State Park.

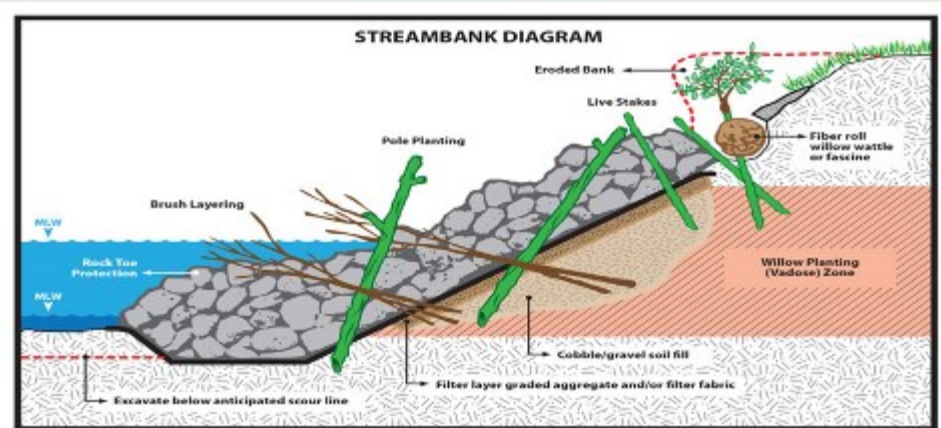
# Best Management Practices Workshop

On February 16, 2017, a Best Management Practices (BMP) workshop was held at the Ridgway 911 Center. Over 65 attendees, including individuals from townships, municipalities, and engineers were present at the event which focused on stream culverts and proper pipe installation.

Speakers for the workshop included Phil Thomas with Trout Unlimited, Luke Bobnar, with the Western Pennsylvania Conservancy, and Randy Albert, PE with PennDOT. Phil Thomas was the featured speaker for the workshop. He discussed the importance of Aquatic Organism Passage (AOP) and the cost benefits of appropriately sized culverts. He also stressed proper pipe installation, calculating proper grade, and establishing grade breaks when installing AOPs.

Luke Bobnar presented on local projects which implemented bioengineering: the use of live tree and shrub stakes to prevent streambank erosion (please see the diagram below). This method is simple and inexpensive. Randy Albert discussed a geosynthetic reinforced soil integrated bridge system that is being used across the state.

Steve Putt and Kate Yetzer with the Elk County Conservation District closed the workshop by discussing bridge and culvert maintenance procedures related to Chapter 105 regulations.



**Above:** Trout Unlimited speaker, Phil Thomas, discusses culvert placement in streambeds.



# Erosion Control in our Forests Workshop

**Right:** Conservation District staff from McKean, Potter, Tioga, Cameron, Warren, and Elk Counties.

**Bottom Left:** Mike Hovatter (Landvest) discusses how to get water off of the main haul road.

**Bottom Right:** Kate Yetzer (Elk County) and Amanda Frederick (Warren County) discuss which BMPs to use when crossing an ephemeral stream.



Each year, through a cooperative effort, McKean, Potter, Tioga, Cameron, Warren, and Elk Counties host an Erosion and Sediment Control in our Forests workshop. This year the event was held in Elk County on April 20, 2017 with a field activity on the property of the Western PA Conservancy in Penfield, PA and a classroom portion at the Jay Township Fire Hall. In attendance were 24 foresters and loggers from various parts of the region.

The objective of this workshop is to demonstrate ways to improve site conditions before and after timber harvests. The 6 County Conservation Districts listed above, in partnership with the Sustainable Forestry Initiative (SFI), work together to present information on forest land Best Management Practices, Timber Harvest Erosion and Sedimentation Control Plans, updates regarding 105 stream and wetland permitting, and items such as the PNDI tool. Group leaders facilitate discussions on legacy roads, timber harvest planning, stream crossings, and many other related subjects. SFI course credits for are available for those in the timber industry.

This workshop was funded through a PACD Non-Point Source Pollution Grant.

# Agriculture Planning Workshop

On March 7, 2017, local farmers attended an Agriculture Planning Meeting held by the Elk County Conservation District. Nicole Carutis, Forage and Crop Educator with Penn State Extension presented on proper soil testing and how it can improve farm production.



Attendees also learned about programs that USDA offers such as CREP (Conservation Reserve Enhancement Program) and EQIP (Environmental Quality Incentives Program) from Suzanne Klinger with the Natural Resources Conservation Service. These programs provide funding and incentives to install Agricultural Best Management Practices such as animal heavy use areas, grazing systems, and manure storage facilities, to name a few.

Amanda Murdock with the Elk County Conservation District discussed manure management and erosion and sediment on farms. Any farm that uses or produces manure must have a Manure Management Plan. Agriculture Erosion and Sediment Control Plans are needed for any farm that plows or tills (including no-till), or has an animal heavy use area. These plans must be up-to-date to receive funding from NRCS.



**Above:** Amanda Murdock discusses Agriculture Erosion and Sediment Control Plans to farmers .



# Pollinators in the PA Wilds Workshop

On March 29, 2017, the Elk County Conservation District hosted a *Pollinators in the PA Wilds* workshop. Pollinators including bees, bats, hummingbirds, and butterflies are declining around the world with factors such as habitat loss, parasites, and disease contributing to the diminution of these important species. These animals play an important role in pollinating nearly 75% of the nation's crops and over 75% of our nation's flowering plants. It is estimated that 1 out of every 3 bites of food eaten is the result of the work of a pollinator.

The workshop was a success with approximately 50 people from Jefferson, Clearfield, Elk, and Cameron Counties in attendance. Speakers from DCNR, NRCS, PSU Master Gardeners, KECA, The Penn State Center of Pollinator Research discussed the importance of native plants, monarch butterflies, honeybee research, pollinator habitat programs, and pollinator gardens. All attendees received hummingbird and butterfly seed mixes and a free lunch. Expenses for this workshop were covered by a PACD Non-Point Source Pollution Mini Grant.



**Above:** PSU Graduate Students, from The Center of Pollinator Research discuss their research regarding honey-bees populations in Pennsylvania. Left, Tayler Jones, Center, Emily Erickson

**Left:** Chris Firestone, Wild Plant Program Manager of Tioga State Forest, DNCR, discusses Native Plants and Invasive Species



# Career Days

In 2017, the Elk County Conservation District has been busy promoting Conservation Districts with Educators and Students.

On March 24, Kate Yetzer attended a career day at the Elk Country Visitor Center in which high school and college students attended. She talked to youth about career opportunities in Pennsylvania with Conservation Districts, and how her degree in Geology turned her towards working in the conservation field. Other environmental agencies such as DCNR, KECA, PA Game Commission also attended.

On April 7, 2017, Kate Yetzer and Amanda Murdock attended Educators in Our Workplace event and spoke to educators in the region about careers in Conservation Districts, and what Conservation Districts do for the public and for adult and youth education. Other cooperating agencies also attended the event. The goal of the event was to educator teachers on what careers are available in the PA Wilds Region.

On October 2, 2017, Kate Yetzer and Stephanie Stoughton attended a career day at Big Maple Natural Therapies Farm in Ridgway, PA. The goal of this career day was to educate students on careers in agriculture. District staff talked about the relationship between conservation districts, the Natural Resource Conservation Service, and local farmers.



Above: Kate Yetzer, speaks to students about possible conservation district careers. Photo courtesy of the Elk County Visitor Center

**FOR IN THE END, WE WILL  
CONSERVE ONLY WHAT WE LOVE.  
WE WILL LOVE ONLY WHAT WE  
UNDERSTAND. WE WILL  
UNDERSTAND ONLY WHAT WE  
ARE TAUGHT.**

**- BABA DIOUM**

Youth are the future of conservation, and the District is thankful for the opportunity to participate in these meaningful events with partner agencies.





## 4H Programs & Summer Camps



Environmental & Conservation Education is a very far-reaching activity that the Conservation District partakes in. District staff frequently participate in hands-on activities for various local youth-groups. In 2017, they included:

In partnership with Western Pennsylvania Conservancy, Kate gave a presentation on the importance of water and the impacts of erosion to approx. 20 middle school students at the Flying Dove Ranch.

Steve and Kate gave a presentation to approx. fifteen 4-H students about the importance and availability of water in our world.

Kate also gave a Web of Life Wetland activity to approx. 20 elementary students at the Flying Dove Ranch. This was a program to teach students about the various benefits of wetlands and how they connect.

Stephanie gave a macroinvertebrate and wetland program to approx. 6 middle school students from Elk County Catholic.

Kate & Stephanie gave an ecosystem/water quality program to approx. 10 elementary school students who attended Snow Camp at the Flying Dove.



# East Branch Spring Creek

## Riparian Planting

### Problem:

The Timberline ATV Trail is close in proximity to East Branch Spring Creek and erodes into the stream channel during high flow. Sediment poses a number of threats to aquatic ecosystems. Sediment can fill spaces between stream substrata to reduce habitat availability, cover food (leaves, algae, etc.), and suffocate gilled organisms and eggs. Additionally, nutrients and chemicals (i.e. pesticides) can become unbound from sediment when it enters the water and can contribute to nutrient and chemical pollution.

East Branch Spring Creek flows into Spring Creek- a high-quality, coldwater fishery as designated by the PA Department of Environmental Protection. Preventing excessive sediment from entering the East Branch of the Clarion River will help Spring Creek to keep its status as a high-quality, coldwater fishery.

### Solution:

Western PA Conservancy installed log vanes, with root wads extending into the stream channel, to reroute flow away from the stream bank, to prevent erosion, and provide fish habitat.

The last stage in the habitat restoration and bank stabilization projects was to plant native riparian species to further secure soil and the recently-completed habitat structures. The District assisted Western Pennsylvania Conservancy with the planting on November 14th, 2017.



Above: A log cross vane with root wad extends into the stream channel behind a sign explaining the importance of the structure.



### Species (# planted)

Yellow Birch (1)
Mapleleaf Viburnum (6)
Blackhaw Viburnum (3)
Pin Oak (4)
Highbush Cranberry (8)
Black Aronia (1)
Red Aronia (20)
Musclewood (6)
Meadowsweet (3)
Hazelnut (57)
Winterberry Holly (28)
Arrow Wood Viburnum (17)
Serviceberry (23)



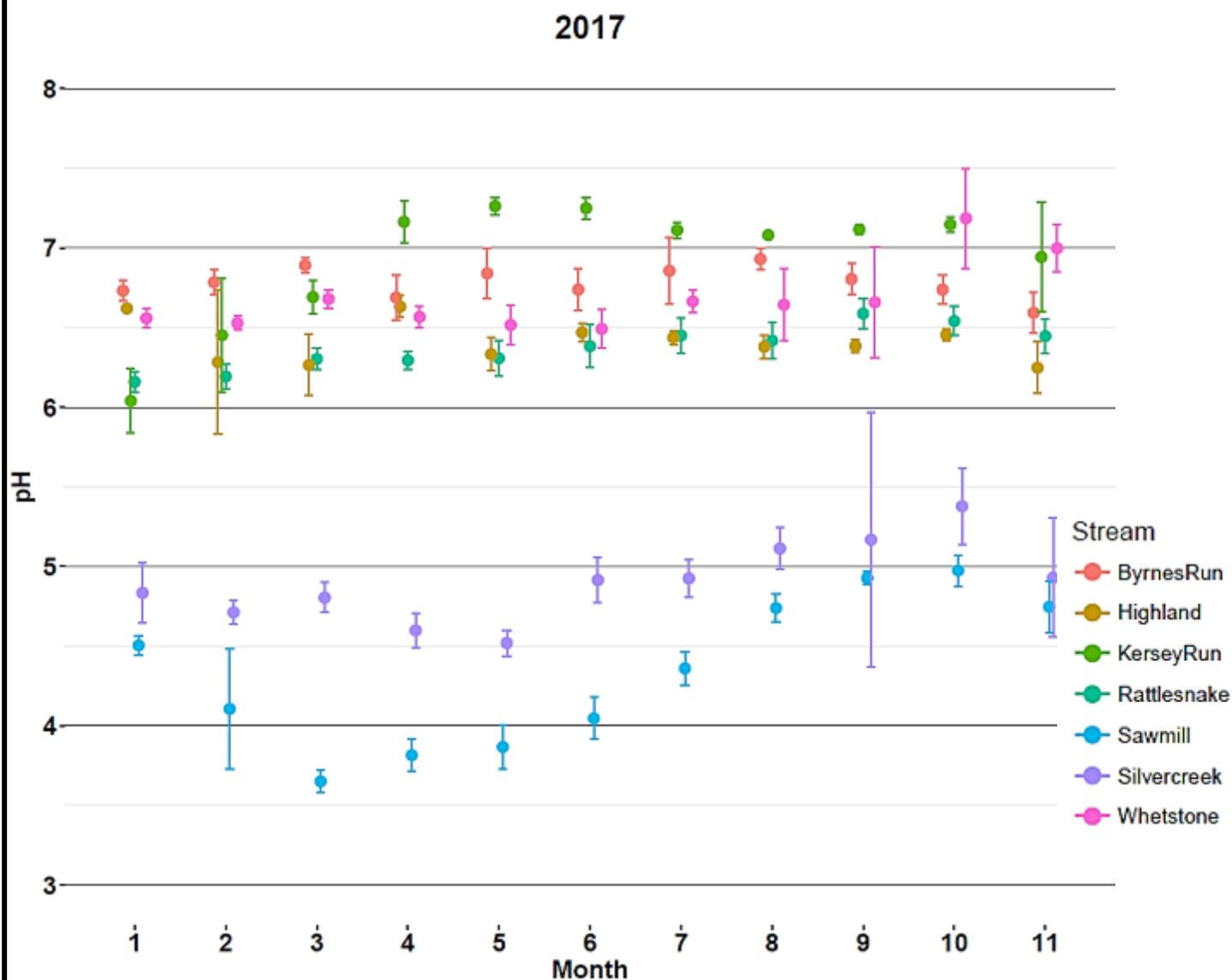
# Chapter 105 Stream & Wetland Permitting

In 2017 the Elk County Conservation District continued its delegation agreement with the Pennsylvania Department of Environmental Protection (DEP) to administer the Chapter 105 program. The Title 25, Chapter 105, Dam Safety and Waterway Management regulations pertain to dams, reservoirs, culverts, bridges, stream enclosures, channel dredging, channel manipulation, fill materials, stream crossings, and other stream and wetland related activities. The responsibilities of the Conservation District under this delegation agreement include: investigation of complaints, routine inspections, technical assistance, education and outreach, and acknowledgement of General Permit (GP) activities. The number of permits issued in 2017 are listed below.

<u># Permits Issues</u>	<u>Permit Type</u>
0	GP1 Fish Habitat Enhancement Structures
2	GP2 Small Docks and Boat Launching Ramps
6	GP3 Bank Rehabilitation, Protection/Gravel Bar Removal
0	GP4 Intake and Outfall Structures
3	GP5 Utility Line Stream Crossings
0	GP6 Agricultural Crossing and Ramps
11	GP7 Minor Road Crossings
4	GP8 Temporary Road Crossings
0	GP9 Agricultural Activities
26	TOTAL PERMITS



# Elk County Water Monitoring Program



**Above:** mean monthly pH ( $\pm$  SD) of the 8 streams with satellite water quality sondes which supply drinking water to local municipalities. Pennsylvania Department of Environmental Protection (DEP) requires drinking water pH comply with the Environmental Protection Agency standard between 6.5—8.5. Sawmill Run, the drinking water supply for Fox TWP, and Silvercreek, the supply for Johnsonburg, were consistently lower than DEP standards, meaning pH had to be elevated before water was suitable for public consumption.

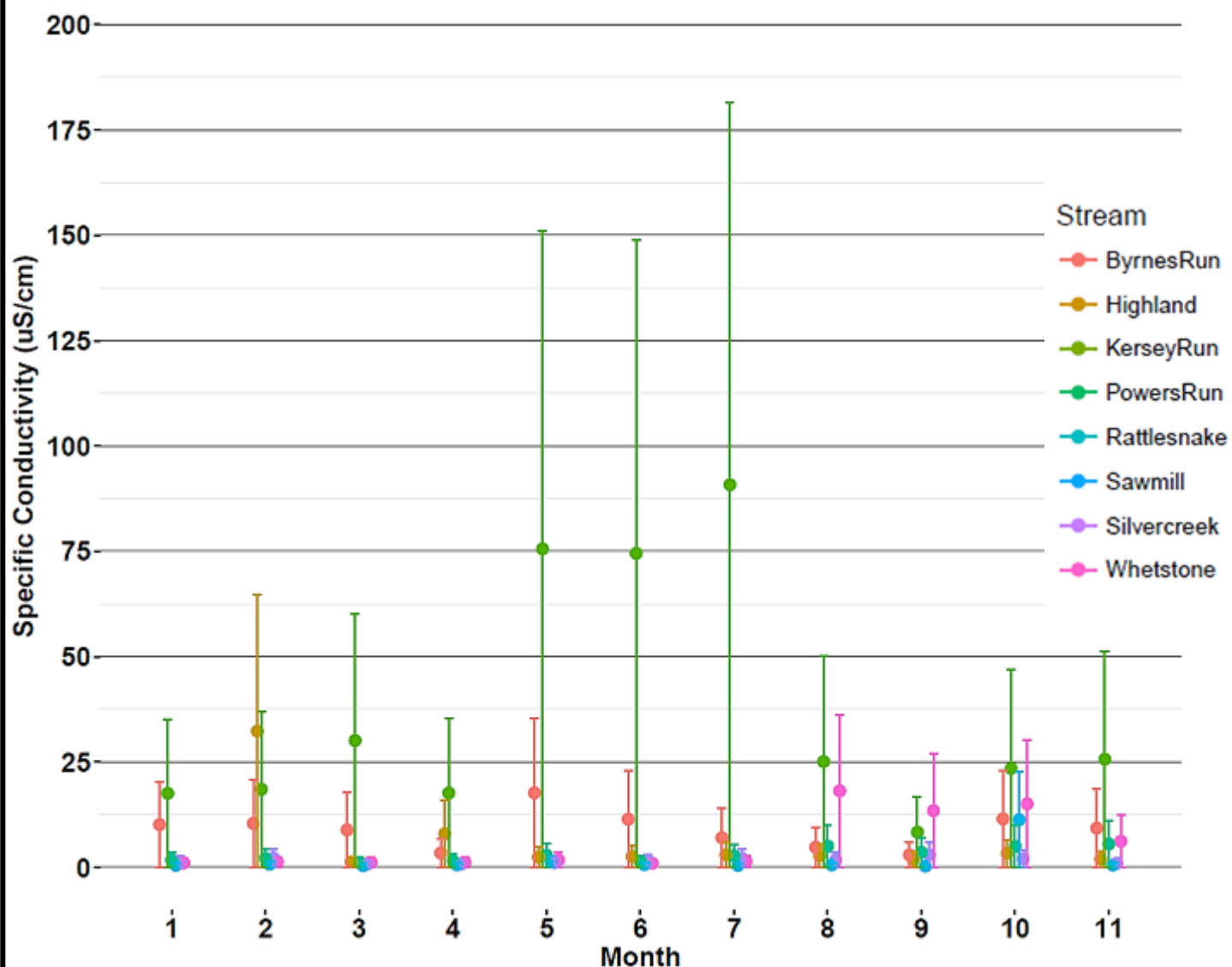
## What is pH?

pH is a measurement of how acidic/basic a substance is. Measured on a logarithmic scale from 0 to 14, a pH of 7 is considered neutral ; pH values above 7 are considered alkaline; pH readings below 7 are acidic. Solubility and availability of chemicals, like metals and nutrients, to plants, animals, and bacteria are determined by the pH of water. For this reason, pH is sometimes referred to as the “master” water quality variable. Acid mine drainage can cause a decline in stream pH and contribute heavy metals, like aluminum, which stress aquatic organisms.



# Elk County Water Monitoring Program

2017



**Above:** mean monthly specific conductivity ( $\pm$  SD) values of the 8 streams with satellite water quality sondes which supply drinking water to local municipalities. Because there is not a drinking water standard for specific conductivity (SC), we can compare the SC concentrations of the 8 drinking water stations with rest of the streams within the North Appalachian Plateau Ecoregion for reference. Streams with the lowest SC readings within the North Appalachian Plateau fall below  $71.7 \mu\text{S}/\text{cm}$ . Seven of ECCD's drinking water stations never exceeded  $71.7 \mu\text{S}/\text{cm}$ , indicating these stations have normal SC. Kersey Run has high SC relative to the rest of the North Appalachian Plateau and other monitoring stations.

## What is specific conductivity?

Specific conductivity is the measure of how well electrical current flows through water and increases as more ions (e.g. salt, nutrients) are dissolved in water. Ion concentration in streams can be influenced by a variety of anthropogenic and natural factors. Carbonate rock, urban/agricultural/road runoff, and acid mine drainage can all increase ion concentration and specific conductivity within a stream. Spikes in conductivity values can coincide with a pollution event (e.g. runoff during rain) or droughts as water evaporates and ions become more concentrated in streams.

# West Creek Project

## Goals

1. Evaluate West Creek water quality
2. Identify areas where acid mine drainage (AMD) abatement would benefit the West Creek ecosystem

## Methods

- Measure pH and specific conductivity to identify AMD discharges within the West Creek Watershed
- Measure flow and water quality of 2 locations on West Creek and 5 AMD discharges
  - pH, acidity, alkalinity, aluminum, iron, manganese, sulfate, and total suspended solids shipped to Mahaffey Laboratories (Curwensville, PA) for analysis
- Water quality results analyzed by J. Ream Engineering Consultants LLC (Emporium, PA)
- Develop recommendations for AMD abatement

## Recommendations provided by Ream Engineering

### Phase 1

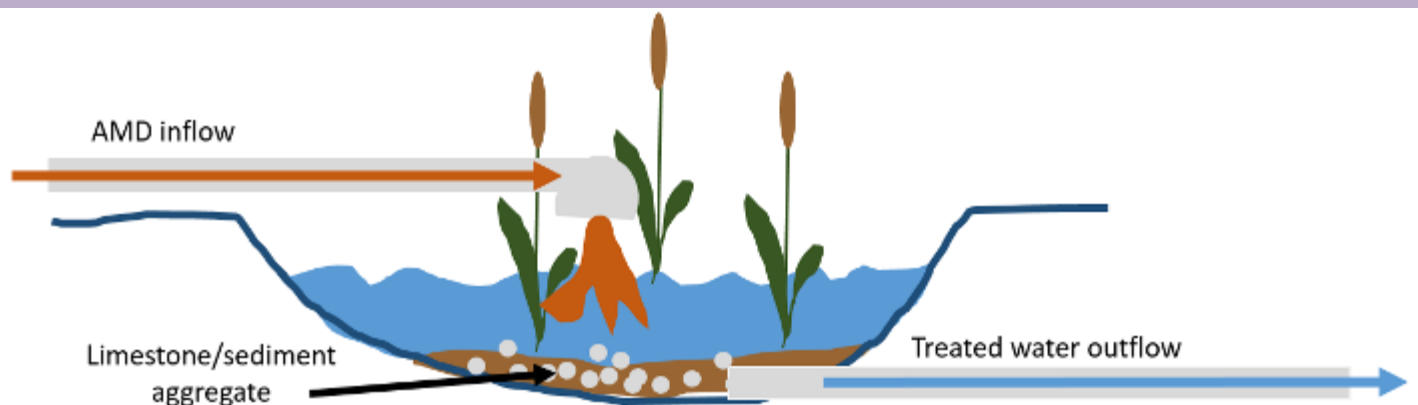
- Acquire permits and obtain funding
- Construct vertical flow and settling ponds to treat WC1-4 (**Figure 1**).

### Phase 2

- Acquire permits and obtain funding
- Build an anoxic limestone drain discharging into a wetland to treat WC6

## Results from Ream Engineering

Site	Avg. Flow (gallons/min)	Avg. Acidity (mg/L)	Average Acidity Load (g/day)
WC1	7.3	141	5596
WC2	3.2	292	5101
WC3	3.4	101	1863
WC4	17.3	145	13658
WC6	2.2	60	722
<b>Total</b>	<b>33.4</b>	<b>739</b>	<b>26940</b>



**Figure 1:** Vertical flow pond used to treat AMD . Acidic, metal-laden water is piped from the stream channel into a pond with a limestone/sediment bottom. The pH becomes more alkaline and aluminum is removed as the water flows into the pond and down through the sediment. Treated water then passes into the stream or into another wetland.



# Annual Clarion River Cleanup



October 2nd, 2017

Students from the St. Marys Ecology Club removed 1,080 pounds of trash, 260 pounds of tires, and a 500 pound tractor tire from the Clarion River riparian area along SR-949.



St. Marys Ecology Club and PA Game Commission Maintenance Crew stand in front of 1,080lbs of trash filling the back of the Game Commission dump truck.



Students pose with the 500lb tractor tire which they wrestled from the riparian area.

## Young-of-Year Trout Release



May 2nd, 2017

Watershed Specialist, Kim Bonfardine, assisted students as they released the young-of-year brook trout into the Clarion River.



Ridgway High School students release their classroom-raised trout. The trout were raised as part of the Trout in the Classroom Program administered by Trout Unlimited.



Brook trout raised by the Ridgway students swim in a bucket before release. Trout in the Classroom offers a hands-on opportunity for students to learn about trout ecology & water quality.

# Invasive Species & Forest Pest Management

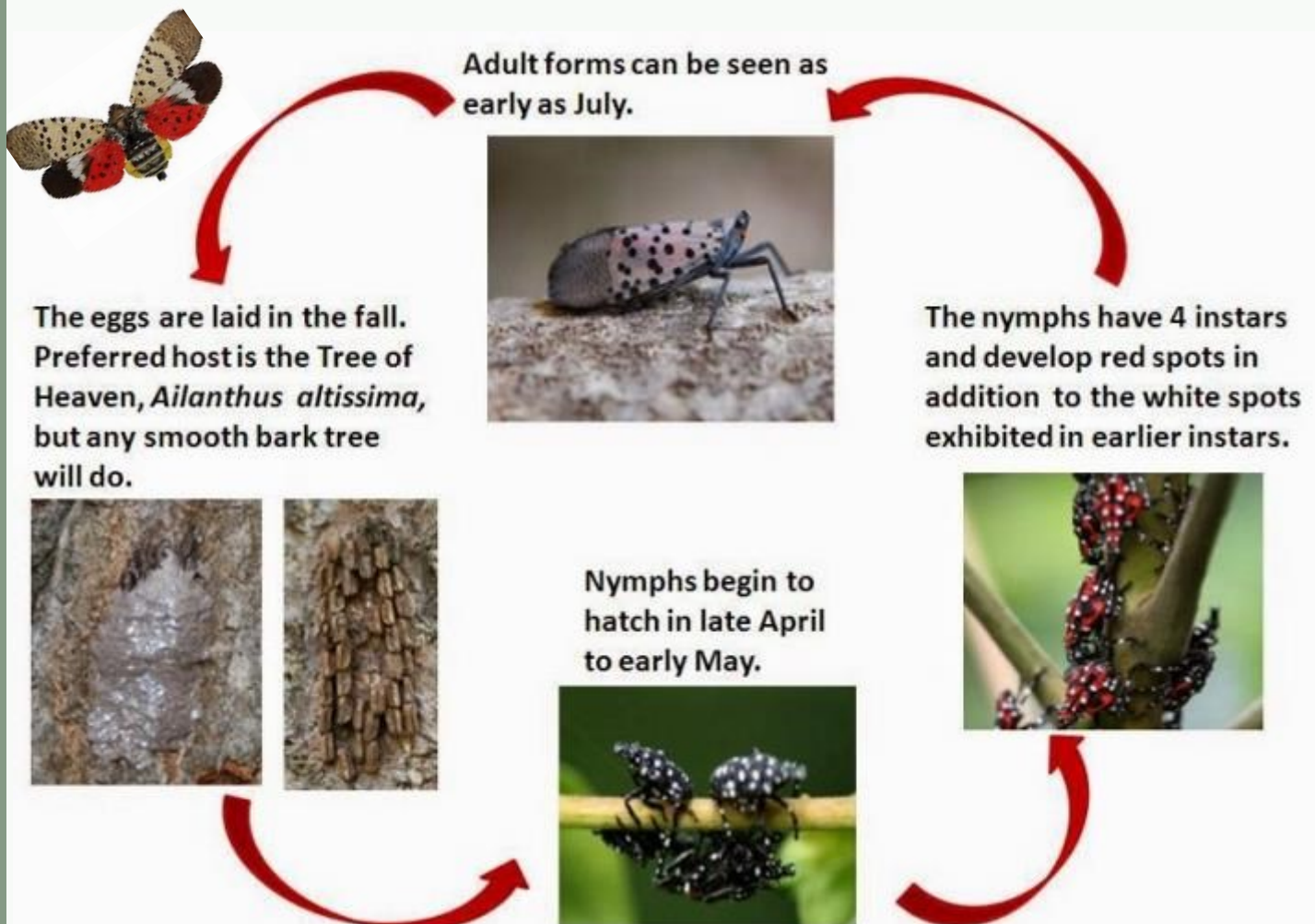
The Elk County Conservation District continues to work closely with various partnering organizations to minimize the spread of invasive species. This includes the continued support of the Sinnemahoning Invasive Plant Management Area (SIPMA) program, where the Conservation District Manager, Steve Putt, serves on the SIPMA Steering Committee. The Conservation District has also played a key roll in the newly formed Allegheny Plateau Invasive Species Management Area (APIPMA). Through these partnerships, we continue to provide education and outreach to help inform others about these unwanted invaders.

## Gypsy Moth Suppression Program

In 2017, the Elk County Conservation District continued to serve as the County Coordinator for the DCNR Bureau of Forestry's Gypsy Moth Suppression program. In recent years, the gypsy moth population has remained minimal in this part of PA. Aside from a few isolated areas, there was little evidence of gypsy moth defoliation in Elk County. There was no need for a spray program in 2017 and it is not anticipated that a spray program will be necessary for 2018. The gypsy moth populations will continue to be monitored in Elk County.

## A New Invader: The Spotted Lantern Fly

The images below depict the various life cycles of the Spotted Lantern Fly. This pest, originally from Asia, has been spotted in south-eastern Pennsylvania (Berk County). Be on the lookout for this invader. This invasive pest can impact important commercial crops such as; grapes, hops, and fruit trees as well as various other types of timber.





# Erosion and Sedimentation Pollution Control Program

## (E&S Program)

The Elk County Conservation District has Level II delegation from the PA Department of Environmental Protection (DEP) to administer the erosion and sediment pollution control program. Level II duties include; education, technical assistance, site inspection, plan review, and voluntary compliance. The Conservation District works with the DEP on all enforcement matters. The goal of this program is to minimize soil erosion and sedimentation. Erosion is part of our naturally occurring processes, but this process can be greatly increased by human disturbances.

PA Code, Title 25, Chapter 102 and the Pennsylvania Clean Streams Law requires measures and facilities to be in place during earth disturbance activities to minimize the potential for erosion and sediment pollution problems. These regulations also require individuals involved in earth disturbance activities to develop an erosion and sediment control plan (E&S Plan). An E&S plan is required for all disturbance of 5,000 square feet in size or larger. This plan includes measures that will be implemented to minimize erosion, describes how construction activities will progress at the site, identifies the scope of the project, and identifies how the disturbed areas will be stabilized upon completion of the project.

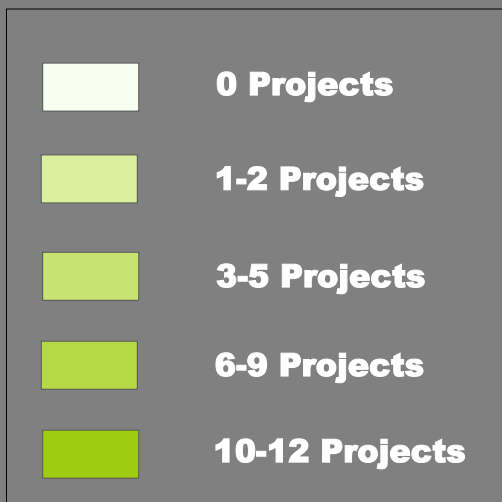
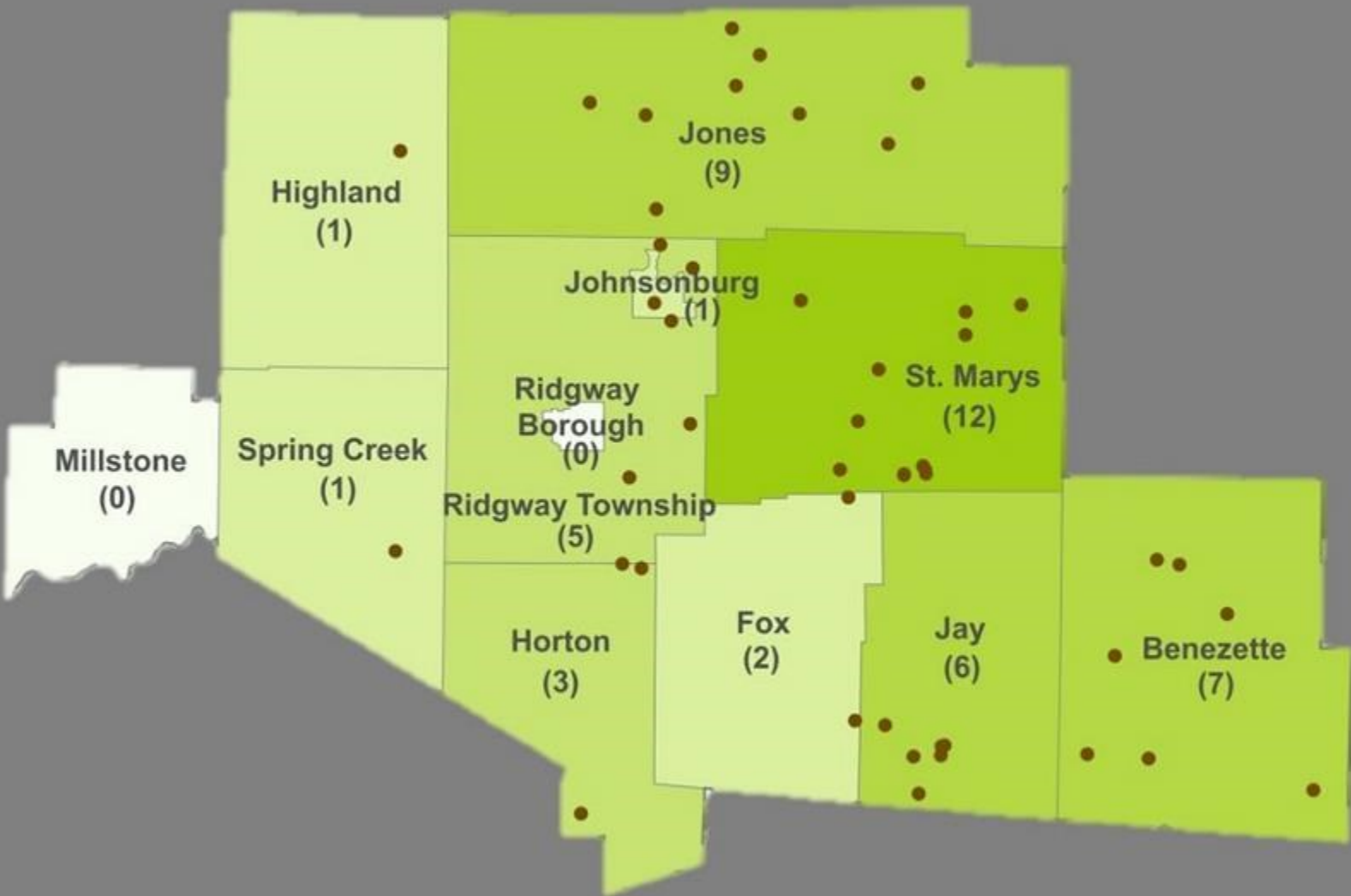
Working under the direction of the Chapter 102 rules and regulations and through the delegation agreement with the PA Department of Environmental Protection, the Elk County Conservation District is tasked with the responsibility of reviewing erosion and sediment control plans. In 2017 the Elk County Conservation District reviewed and processed 55 erosion and sediment control plans. Projects included approximately 96 acres of disturbance.

In addition to the processing of erosion and sediment control plans, the Conservation District also investigates complaints, conducts site inspections, provides technical assistance and organizes educational events. In 2017 the Elk County Conservation District received and investigated 10 complaints and conducted 29 site inspections.

NPDES permits are required for earth disturbance activities that will involve one (1) or more acres of disturbance over the life of the project (excludes agriculture, timber harvesting, road maintenance and oil & gas activities). There are two types of NPDES permits. Individual NPDES Permits are required for projects that will occur in special protection watersheds (high quality or exceptional value) or may be required due to other special circumstances. General NPDES permits are for projects involving earth disturbance activities of one acre or more in areas that are not considered special protection and do not fall under one of the other special circumstances. In 2017 the Conservation District processed 3 General NPDES permits and 3 Individual NPDES Permit. We were also involved in 2 NPDES Permit Major Modifications and 2 ESCGP Permits (related to oil and gas activity).



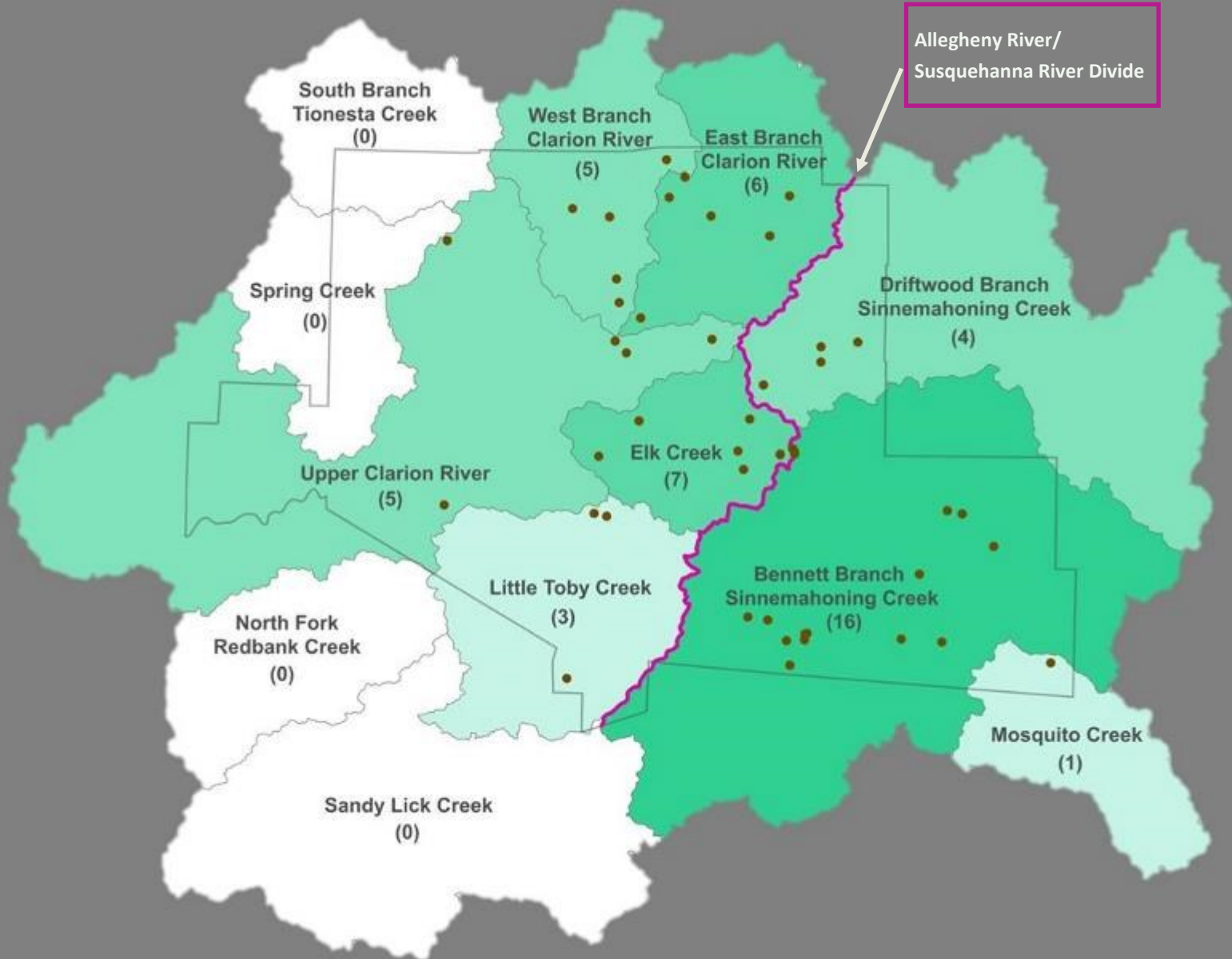
# 2017 Elk County Erosion and Sedimentation Projects by Municipality



In 2017 the Elk County Conservation District approved a total of 47 erosion and sedimentation projects. These included NPDES permits, GP permits (stream & wetland crossings and encroachments), ESG permits (oil and gas related), and small erosion and sedimentation projects. The map above depicts the location of each approved project by municipality. It can be seen from the image that projects tended to be concentrated toward the eastern part of the county. The City of St. Marys had the highest number of approved projects (12), while Millstone and Ridgway Borough had the least (0).



# 2017 Elk County Erosion and Sedimentation Projects by Watershed



Allegheny River/  
Susquehanna River Divide



The map above depicts the location of each project approved in 2017 by watershed. The Bennett Branch of the Sinnemahoning Creek had the highest density of approved projects; 16 in total. The western boundary of the Bennett and Driftwood Branches of Sinnemahoning Creek mark the divide between the Alleghany and the Susquehanna River Watersheds in Pennsylvania. In 2017 there were 21 projects approved in the Susquehanna River Watershed, which drains to the Chesapeake Bay.

# Benezette Low Volume Road Project Completed

A stream crossing located near the intersection of 2nd Street & Walnut Street in Benezette Township was recently replaced under the Elk County Conservation District's Low Volume Road Program. The original structure was a combination of a 36" rusted metal pipe and a 24" plastic pipe. The District replaced this with a 66" corrugated elliptical pipe. A much larger pipe was used because of considerations with the amount of water the stream carries, bankfull measurements, and aquatic organism passage. The photos below are before and after pictures of the outlet and the inlet. The inlet photo on the bottom left shows that substrate is already beginning to fill in the pipe. This will allow for aquatic organisms, such as the Allegheny Mountain Dusky Salamander (found during construction and pictured right), to pass through the structure freely.





# Dirt, Gravel, & Low Volume Road Program

**Dirt & Gravel**- In 2017, four dirt & gravel projects were completed for a total cost of \$94,828.27. Additionally four projects, totaling \$89,594.28, have been contracted in 2017 and scheduled for completion in 2018.

**Low Volume**- In 2017, four projects were completed in the low volume program at a total cost of \$49,071.17. Additionally, one project, for \$34,480.50 has been contracted in 2017 and scheduled for completion in 2018.

Some 2017 construction photos are below



Every year the District holds an Annual Dirt, Gravel, & Low Volume Road Program Update meeting for all eligible entities in Elk County. The purpose of this meeting is to update participants on local or statewide changes to the program. Additionally, District staff use the opportunity to discuss some best management practices that can be used during road construction and maintenance activities. This year the meeting was held in the morning, at Joey's Bakery in Ridgway. Half of all eligible entities in Elk County were represented. A picture from this meeting is above.

# Elk County Community Recycling Center

850 Washington Street, St. Marys, PA 15857 Ph: (814) 776-5373

Website: [www.co.elk.pa.us/recycling](http://www.co.elk.pa.us/recycling)



The Elk County Community Recycling Center was opened in October 2010 by the County of Elk and the Elk County Solid Waste Authority / Recycling Office. The Center started operation at the Stackpole Complex in St. Marys and utilized that space for the first 5 1/2 years. In 2016, the county purchased the former Advanced Recycling Building and the move was made.

The Recycling Center currently accepts newsprint, office paper, magazines, mixed paper, cardboard, hard & soft cover books, #1 plastic bottles, #2 plastic bottles, #5 plastic, #5 flex bags (bulk packs), bi-metal cans, and aluminum cans. In addition, the Recycling Office has an ongoing electronics collection which occurs on the 3rd Saturday of each month. They also collect fluorescent bulbs, batteries, and oil based paint and pesticides.

## "Drive-Through Service"



## Open House Held on April 13, 2017



THANK YOU!

Advanced Disposal—  
Greentree Landfill for donating T-Shirts for our volunteers.

Domtar Paper—  
Johnsonburg Mill for donating safety vests for our volunteers.



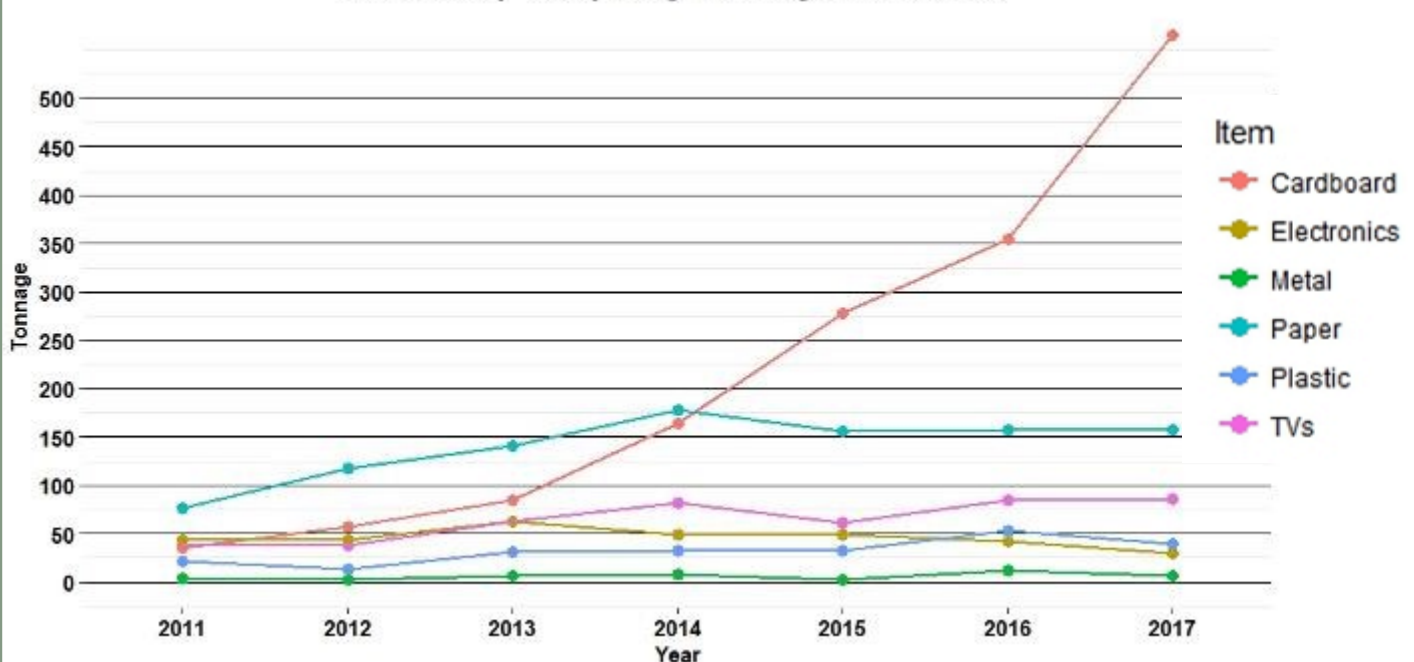


# Elk County Community Recycling Center Cont.

The volunteers prepared a float for the St. Marys 175th Anniversary Parade. They won **1st Place!**  
\$ 1,000.00 Prize.



Elk County Recycling Tonnage 2011-2017



Graph Produced by Watershed Technician: Stephanie Stoughton

# 2017 Financial Statement

## Elk County Conservation District Income & Expense Report (Yr.End) January through December 2017

	Jan - Dec 17
<b>Income</b>	
40000 • CDFAP--Admin. Assist. Grant	1,013.54
40100 • CDFAP--Income (Dist.Mgr./1st Tc	66,615.30
40110 • ACT (Ag Tech)--Income - CDFAP	19,920.14
40120 • Nut. Mgmt. Income (Ag Tech.)	12,734.00
40150 • Act 13 - UGWF Income	57,901.51
40200 • Watershed Spec. Grant Income	24,190.70
40300 • S/W Enforcement Officer Income	46,831.75
40400 • County Allocation Income	12,250.00
40500 • E & S Review Fee Income	8,540.00
40525 • GP Permit Fees (Ch.105)	3,100.00
40550 • NPDES Permit Fees	7,500.00
40551 • ESCGP Permit Fees	500.00
40552 • Enforcement Fees	3,610.00
40600 • Interest Income - CNB Savings	550.34
40610 • Interest Income -- D&G/LVR Acct	14.60
40620 • Interest -- Cleanwater Acct.	175.47
40710 • Misc. Income -- Mini-Grants	4,948.00
40750 • Misc. Income -- Envirothon Don.	700.00
40752 • Annual Race/Fundraiser Income	2,890.00
42101 • Sinnemah. W/S Grant - WC AMLAMD	6,591.20
45000 • Water Monitoring Project	
45063 • Wat. Mon. Proj. - '15 Sinn. W/S	974.00
Total 45000 • Water Monitoring Project	974.00
48600 • Dirt & Gravel/LVR - Proj.Inc.	
48601 • Dirt & Gravel - Project Income	190,950.00
48605 • Low Volume Road - Project Incom	48,000.00
Total 48600 • Dirt & Gravel/LVR - Proj.Inc.	238,950.00
48610 • Dirt & Gravel/LVR - Adm. Income	
48611 • Dirt & Gravel - Admin. Inc.	23,868.75
48612 • Dirt & Gravel - Trng/Educ Inc.	23,868.75
48615 • Low Volume Road - Admin. Inc.	6,000.00
48616 • Low Volume Road - Trng.Educ.Inc	6,000.00
Total 48610 • Dirt & Gravel/LVR - Adm. Income	59,737.50
<b>Total Income</b>	<b>580,238.05</b>
<b>Expense</b>	
50000 • Payroll Expenses	144,953.18
50200 • Health Insurance	20,534.58
50210 • Vision Insurance	379.83
50220 • Dental Insurance	1,042.66
50300 • Retirement (7%)	9,522.50
50400 • FICA (Social Security) Company	10,173.73
50500 • Med. (Social Security) Company	2,379.73
50600 • PAUC - Unempl.Comp. Company	1,725.76
50700 • Workers Compensation	1,833.80
52000 • Travel Expense	2,661.19
52200 • Per Diem Expense	366.69
52500 • Registration Fees	595.00



# 2017 Financial Statement Cont.

52600 • Meeting Expense	325.13
54200 • Office Supplies	1,156.95
56500 • Furniture & Equipment	42.57
57000 • Telephone	300.00
57500 • Dues & Memberships	2,220.00
57550 • Sponsorship Fees	650.00
57590 • Education & Outreach Expenses	69.47
57910 • Act 13 - CDFAP/SAA Expenses	
57911 • Act 13--CDFAP/SAA (Dir. Travel)	612.04
57912 • Act 13--CDFAP/SAA (Ann.Rpt.)	81.24
57913 • Act 13--CDFAP/SAA (Liab.Insur.)	1,274.25
57914 • Act 13--CDFAP/SAA (Postage)	104.23
57915 • Act 13--CDFAP/SAA (Admin.Svcs.)	9,090.45
57916 • Act 13--CDFAP/SAA (Audit)	2,675.00
Total 57910 • Act 13 - CDFAP/SAA Expenses	13,837.21
58000 • Envirothon Expenses	1,608.73
58001 • Jr. Envirothon Expenses	368.93
58002 • Annual Race/Fundraiser Expenses	1,111.78
58120 • Misc. Mini-Grant Expenses	1,944.57
58200 • Sinnemahoning W/S--WC AML/AMD	
58201 • Sinn. W/S--WC AML/AMD - Salary	552.00
58202 • Sinn. W/S--WC AML/AMD - Travel	35.84
58203 • Sinn. W/S--WC AML/AMD-Equip/Sup	94.47
58204 • Sinn. W/S--WC AML/AMD - Contrac	8,445.00
Total 58200 • Sinnemahoning W/S--WC AML/AMD	9,127.31
58500 • Water Monitoring Project Expens	
58526 • Water Mon.Proj.-2015 S/H Grant	
58529 • 2015 S/H -- Parts/Maint/Repairs	1,027.70
Total 58526 • Water Mon.Proj.-2015 S/H Grant	1,027.70
58531 • Water Mon.Proj.-2017 S/H Grant	
58532 • 2017 S/H -- Calibration	342.00
58533 • 2017 S/H -- Sat. Transmission	5,124.00
Total 58531 • Water Mon.Proj.-2017 S/H Grant	5,466.00
58540 • Water Mon. Proj. - Colcom/IFCTU	
58542 • Contractual	8,070.00
58543 • Travel	499.16
Total 58540 • Water Mon. Proj. - Colcom/IFCTU	8,569.16
Total 58500 • Water Monitoring Project Expens	15,062.86
58563 • 2015-Sinnemahoning W/S Grant	888.00
58600 • Dirt & Gravel/LVR - Project Exp	
58601 • Dirt & Gravel Road - Projects	175,531.51
58605 • Low Volume Road - Projects	66,311.42
Total 58600 • Dirt & Gravel/LVR - Project Exp	241,842.93
58610 • Dirt & Gravel/LVR - Admin. Fees	
58611 • Dirt & Gravel Road - Admin.	24,898.06
58612 • Dirt & Gravel Road - Trng./Educ	4,087.03
58615 • Low Volume Road - Admin	5,403.08
58616 • Low Volume Road - Trng./Educ.	1,642.40
Total 58610 • Dirt & Gravel/LVR - Admin. Fees	36,030.57
Total Expense	522,755.66
Net Income	57,482.39

## ***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