

**District Manager**

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The Armstrong Conservation District responded to several new challenges and embraced new initiatives to cope with the ever changing conservation environment. In January, the District was reassigned from the DEP Southwest Regional Office to the DEP- Northwest Regional Office. 2019 would be a year of transition as staff met developed and implemented the programs and projects in our new DEP region. Early in 2019, the Board of Directors dedicated themselves to concentrate on further implementation of the 5 year Strategic Plan to guide the District. Please visit our newly redesigned website to view our Strategic Plan. Our “2019 Action Plan” set forth numerous objectives that the Board wished to see fully implemented by the end of the year. As you read the individual reports of our Staff, you will be able to see how each person contributed to completion of the Annual Action Plan. The Board continued to update and refine the Annual Action Plan in four priority areas-Capacity Building, Technical Assistance, Resource Conservation and Protection, and Outreach and Education. Specific measurable objectives were adopted by the District Board and assigned to the appropriate individuals or the Board as a whole for implementation. The highlights of the individual staff in the Annual Report will show you how well those objectives were achieved.

In our continuing effort to build the District Capacity, numerous professional development opportunities were made available to the Staff, Directors, and Associate Directors. Staff meetings were conducted by the District Manager on a bi-weekly basis to keep the staff informed, exchange information, and coordinate our limited resources. Our office is located at 120 South Grant Avenue, Suite 2 in Kittanning. Please stop in AND visit us if you are in the area. The District continued to grow the Cooperator Assistance and Outreach Programs through updates to our website, our Facebook page, informational brochures, field days, and the use of our Dayton Fair and other displays. 2019 saw the District expand its education and outreach efforts with an expanded offering to 23 different Conservation Districts in Western Pa. through the Mobile Environmental Display (MED). The District continued to participate in the AmeriCorps program and welcomed a new Corps Member – Kodie Rearick. Kodie is a recent Penn State graduate and is looking forward to a further career in the conservation field. Our former member, Jillian Matthews ended her term at the District to receive an employment offer as an E&S technician at the Butler Conservation District. In January, to keep up with the District’s project workload, the Board interviewed and retained 3 engineering firms to assist staff with project development and implementation. These firms will also assist staff with grant writing and administration. In March, the District interviewed for a newly created Watershed Educator/Project Specialist position and hired Ms. Maria Sorce for the position. Maria brings her previous experience with the Western Pa. Conservancy and as a private lab water quality inspector to the District. In 2019, the District continued to apply for Growing Greener Watershed Protection and Restoration Grants to implement other facets of the District Program. Work continued to administer and close out those currently awarded Growing Greener funding

opportunities. The District continued to be represented with the Board appointing delegates to the Pennsylvania Association of Conservation Districts (PACD), Western Pennsylvania Coalition for Abandoned Mine Reclamation (WPCAMR), Penn's Corner Resource Conservation & Development Council (RD&D), and the Dirt, Gravel and Low Volume Road Quality Assurance Board (QAB). In the area of Technical Assistance, the District provided assistance to several County organizations and Municipalities as they were striving to attain their conservation goals. District staff provided assistance to interested Municipalities as they were developing Erosion Control and Stormwater Management ordinances. Staff also fielded questions regarding implementation of the MS-4 program. District Staff also worked to retain participation by local elected municipal officials in the creation and maintenance of Agricultural Security Areas (ASA's) within the County. Staff assisted various municipalities interested in participating in the Dirt, Gravel, and Low Volume Roads Program. The District continued its participation in the Commonwealth REAP program by providing assistance to area agricultural producers interested in applying for these tax credits.

In the field of Resource Conservation and Protection, the District conducted Erosion and Sediment Pollution Control Plan reviews and performed the required site inspections of active earthmoving sites within timeframes established by the Commonwealth. District staff participated in Southwest Project Grass and provided technical and administrative assistance to the Armstrong County Agricultural Lands Preservation Board as they selected the purchase of another Agricultural Conservation Easement. Work was concluded on several Watershed Restoration Projects such as the Darmac#14 Passive Wetland Treatment System, The Silver Rock - Phase I Passive Wetland Treatment System, the Gerald Kimmel Landowner Reclamation Project, and the Huling Run Passive Wetland Treatment System. Work continued on other watershed restoration projects in various phases of development. Those specific accomplishments may be found under the appropriate staff section of this Annual Report.

For 2019, the District continued its Outreach and Education efforts. Those efforts included the County Envirothon and active participation by all high schools within the County, the Arbor Day Program, the Fruit Tree and Seedling sale, the Armstrong County Agricultural Awards Banquet. District also partnered with the IT Department of Armstrong County to revamp the District webpage. We increased our presence with our Facebook page, published our Annual Report, wrote and developed various articles for other newsletters and participated in local, regional, and statewide workshops. The highly successful ACD Water GeoTrail (for those of you who are Geocachers) has been expanded in 2019 with several new caches added. Grab your GPS unit and check them out for yourselves and see some of the sites where the District has completed conservation and restoration projects. Staff also expanded our use of multi-media presentations to area groups about the natural resources of Armstrong County. The District MED driver and coordinator, Laura Sue Stewart continued her employment as our part time Mobile Environmental Display Coordinator. The District continued its annual spring Elected Officials Breakfast meeting for our local, state, and federal elected officials and continued to host the annual fall conservation tour of recently completed conservation projects within the County. The District was once again asked to present to the Pa. Township Supervisors (PSATS) Annual Convention in Hershey, Pa. In what has become an annual event, District staff were invited to present at the spring and fall Armstrong County Township officials conventions about the District and our diverse program offerings. District staff continued working with local municipal

officials to expand participation our erosion control, stormwater, MS-4, and our Dirt, Gravel, and Low Volume Road Program initiatives. For 2020 and beyond, we will continue to offer technical assistance to our District Cooperators within the limits of our technical abilities and funding.

Ms. Holly (Dill) Laird continued her professional development as the District E&S Technician. Ms. Laird continues to perform E&S plan reviews, conduct site inspections, and handle E&S related complaints. Newly hired Watershed Educator/Project Specialist Maria Sorce and the entire staff continued their professional development by being cross trained in other areas by staff utilizing their expertise. All staff were certified in CPR and trained in the use of the AED device located in our shared conference room space.

For all of these efforts supported by the Armstrong Conservation District Board of Directors, our very active Associate Directors, and our professional staff, I am extremely proud of what the Armstrong Conservation District has accomplished in 2019 and look forward to the challenges and opportunities outlined in our 2020 Action Plan. The individual staff reports are also enclosed, so please review them over at your pleasure and provide us with your feedback so that we may better serve you in the future. I hope that 2020 provides us with an opportunity to enjoy the fruits of our accomplishments. I know that as I approach 39 years as your Conservation District Manager it seems that time goes by more quickly.

Should you have any questions about the annual report, or any of the District Programs, please stop by our new office location at 120 S Grant Avenue, Suite 2, Kittanning, PA, call me at 724.548.3425 or email me at [drrupert@co.armstrong.pa.us](mailto:drrupert@co.armstrong.pa.us) Please visit our webpage at [www.armstrongcd.org](http://www.armstrongcd.org) or like us on Facebook.

#### **Resource Conservationist – Erosion and Sedimentation**

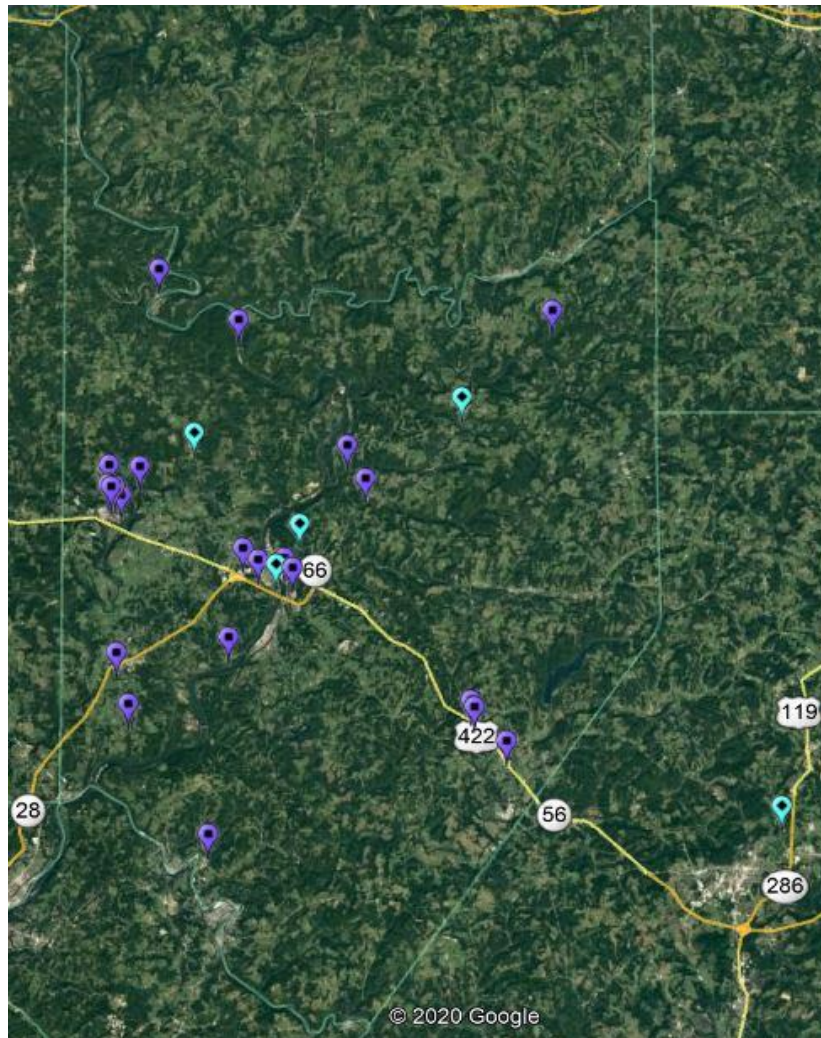
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The Armstrong Conservation District has Level III delegation from the PA Department of Environmental Protection (DEP) to administer the erosion and sediment pollution control program. PA Code, Title 25, Chapter 102 of the Pennsylvania Clean Streams Law requires that steps be taken to control erosion during regulated earth disturbance activities. Under this delegation agreement, the Armstrong Conservation District administers the National Pollutant Discharge Elimination System (NPDES) Program, reviews E&SPC plans for adequacy to prevent accelerated erosion, provides technical assistance, conducts site inspections, reviews plans, and holds education workshops for plan preparers and the regulated community.

The accomplishments over the past year include:

1. E&SPC plan reviews were conducted on 27 plans.
2. E&S plan reviews were conducted on 453 total acres and 77 disturbed acres.
3. NPDES permits were received, processed, and reviewed for 5 General permits.
4. One ESCGP permit was received, processed, and reviewed for a transmission line.
5. Received and investigated 16 complaints pertaining to erosion and sedimentation.
6. Technical assistance was provided to 66 people during the year. This is a 106% increase from 2018.
7. To ensure that E&SPC plans were properly implemented and maintained, 93 site inspections were conducted.
8. Notice of Termination requests for 4 sites were reviewed and approved.
9. Six news releases were provided to the public. These news releases took the form of social media posts via Facebook and Instagram in addition to Newspaper articles published by the Leader Times.
10. Two workshops were held in 2019. The first workshop was geared towards E&S plan preparers and had 27 people in attendance. The second workshop was a 'Lunch and Learn' provided by Tensar whose representative presented on the use of geotextiles for road bases and other uses.
11. In 2019, review fees received totaled \$8,400 NPDES permit fees totaled \$3,000, and DEP disturbed acre fees totaled \$2,700



Purple pins represent E&S plans less than 1 acre approved by ACD. Light blue pins represent NPDES permits issued by ACD.

#### DEP/Program Updates:

On December 7<sup>th</sup>, 2019, the DEP reissued the PAG-02 NPDES General Permit for Discharges of Stormwater Associated with Construction Activities. The 2019 General Permit replaces the previous 2017 General Permit. Changes to the newly issued General Permit include: a uniform expiration date of December 7<sup>th</sup>, 2024, stricter regulations for stormwater discharges to impaired waters, and general permit implementation requirements for on-site personnel. Thus far, DEP has provided trainings for DEP and Conservation District Staff and has plans to provide additional training for the regulated community.

### Training Events:

Throughout 2019, district staff participated in a total of 29 training events to assist in the implementation of the Chapter 102 program. This was a 61% increase over the 18 events attended in 2018. The Clean Water Academy still acts as the main training component for the E&S Program provided by DEP and staff completed 14 training modules. The United States Army Corps of Engineers teamed up with the USDA- Natural Resource Conservation Service and hosted a three day wetland training event in Pymatuning that staff also attended. Multiple events related to agriculture and soil educated staff about the concerns of soil limitations and soil health.

### Outreach Efforts:

ACD hosted an engineering workshop on March 1<sup>st</sup>, 2019 for the regulated community. The following topics were addressed, MS4 Permit Requirements, newly approved engineering techniques, Chapter 105 updates, and permit amendments. Representatives from DEP, OSHA, and PA One Call presented at the event. The event lasted the majority of the work day and had 27 plan preparers in attendance (photos below).

The Pennsylvania Association of Conservation Districts (PACD) and DEP allocated funding to Conservation Districts in order to educate adults about the harmful effects of non-point source pollution. ACD applied for and was awarded a grant from PACD in the amount of \$2,000 and a grant from DEP in the amount of \$2,900. These grants were used to hold a rain barrel workshop for Armstrong County residents. The workshop was held on October 28<sup>th</sup>, 2019 at the ACD office. Staff from Penn State Extension and ACD spoke to the attendees about various best management practices to handle stormwater on their properties. A total of thirty rain barrels were distributed to residents and two were installed at the ACD office (photos below).

### ICCD Assistance:

The Indiana County Conservation District (ICCD) is in the process of constructing a new office building. As part of this process, ICCD was required to apply for and obtain a PAG-02 NPDES General Permit. As is customary between Conservation Districts, the NPDES Permit required by ICCD had to be reviewed by a neighboring Conservation District. The NPDES Permit was submitted to ACD who conducted the review process and issued the permit. In compliance with ACD's delegation agreement with DEP, periodic inspections are conducted of the site to ensure compliance with Chapter 102. The new office building is set to open in the fall of 2020.

### Transmission Line:

Columbia Gas Transmission, LLC proposed to replace an existing transmission line that crosses Armstrong, Butler, and Clarion counties. The new line, which is coated pipe will replace the old bare steel mainline and will re-reroute a portion of the line. DEP created the Regional Permit Coordination Office (RPCO) to help Conservation Districts in the permitting process of multi-county projects such as this. For the review process, each Conservation District reviews the portion of the project within its county and RPCO has oversight of this review. After each District has completed their review, RPCO will issue the permit to Columbia Gas Transmission,



LLC. During installation and associated earth moving activities, each Conservation District will conduct inspections of the project site to determine compliance with Chapter 102.

#### Future Plans for 2020:

As outlined in the 2020 Action Plan, ACD plans to work with the Armstrong County Planning Commission and individual municipalities to assist in the development of a county-wide Act 167 plan. This work began in 2019 when ACD staff presented at the Armstrong County Municipal Convention to encourage municipalities to develop stormwater ordinances and to enter into a Memorandum of Understanding with ACD to conduct stormwater reviews for sites less than 5,000 square feet. ACD also plans to apply for a PACD mini-grant to host a workshop for municipal officials to continue these discussions. ACD plans to join efforts with the Clarion County Conservation District (CCCD) and the Jefferson County Conservation District (JCCD) to hold a joint timber harvesting workshop. The timber harvesting industry has seen a boom as of recently and ACD, CCCD, and JCCD would like to hold a workshop to allow loggers the opportunity to learn about proper erosion and sediment control techniques. Additional topics to be discussed at the event include: learning how to use online resources such as DEP eMap, USGS stream stats, and Pennsylvania Fish and Boat Commission interactive maps.



Holly Laird (ACD – pictured on the left) and Dana Grabowski (JCCD – pictured on the right) present at the Plan Preparers workshop at the ACD office on March 1<sup>st</sup>, 2019.



Allison Evanitz (PA One Call Representative) presents at the Plan Preparer's workshop on March 1<sup>st</sup>, 2019.



Rain barrels installed outside of the ACD office.  
Each barrel holds 50 gallons of rainwater.





Rain barrel workshop participants are gathered outside of the ACD office while Holly Laird explains the rain capturing process.



Danielle Rhea of Penn State Extension present on stormwater BMP's available to homeowners.

**Dirt, Gravel & Low Volume Roads Specialist**

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The Dirt Gravel & Low Volume Roads Specialist is responsible for administering the Dirt, Gravel & Low Volume Roads (DGLVR) Program within the County. I have a degree in Civil Engineering Technologies and certified as a DGLVR Specialist through multiple trainings and workshops. I work with applicants to develop plans for projects and assist with the logistics of project work whenever possible. I am responsible for keeping all records of projects and maintaining an inventory of all completed and current work sites using a GIS system. Multiple project inspections take place prior to work beginning, during construction, and when site work is complete. A portion of the annual DGLVR Program funding allows the District to provide training & education to road owning entities. The District is also able to purchase equipment for the municipalities to borrow which lets them perform environmentally sensitive road maintenance. Currently the District provides a Plate Tamper and a Jumping Jack Tamper for municipalities. The workers use them provide proper compaction when installing their drainage pipes. The District also owns a Leaf and Debris Blower to clean the road ditches without disturbing the vegetation and earth in the ditch. This process reduces erosion and sediment in the drainage system. The District's newest addition is a Seeding and Mulching machine. The municipalities can seed and mulch the disturbed areas of their projects more efficiently. The Seeder & Mulcher can also double as a leaf vacuum in the fall month to allow the municipalities to clean leaves out of their drainage pipes.



The Dirt, Gravel & Low Volume Roads Program (DGLVR) is a statewide program passed into law in 1997, as Section 9106 of the PA Vehicle Code. The program is to reduce sediment and dust pollution by utilizing Environmentally Sound Maintenance (ESM) practices generated by unpaved roads. A local Quality Assurance Board (QAB) consisting of members from the PA Fish & Boat Commission, USDA Department of Conservation and Natural Resources (NRCS) and the District review and score project proposals and recommend which projects the District should fund. The District makes grants to the municipalities to perform ESM work on their roads. In 2015, the Program expanded to allow paved or tar and chipped roads that have an average daily traffic count of less than 500 vehicles become eligible for funding. The DGLVR Program funded 25 projects during the 2019 construction season.





After years of vehicle travel and municipalities using road graders to maintain their dirt roads, the roadways can become entrenched. Entrenched roads do not allow drainage to escape which causes road and ditch erosion to occur. By filling the roadway up to the surrounding profile, water can sheet flow off the road, this reduces erosion damage and keeps sediment from entering our streams. Municipalities use aggregate from local quarries to fill in these embedded roadways providing a cost effective method to add 75 to 100 years to the life of the road. The use of locally mined stone provides economic benefits to the regional economy.



Some of the District's DGLVR education and outreach efforts have been focusing on showing municipalities how the DGLVR Program can assist them with current and future Municipal



Storm Water (MS4) obligations. Road projects can include storm water infiltration, detention and dispersal ESM techniques. These storm water structures capture the storm runoff then slowly release the water to reduce erosion damage. These structures continue working after the storm has ended.

To date, the DGLVR Program has assisted local municipalities apply ESM practices along 330 project sites by installing: • 1,240 cross pipes • 29 stream culverts • 49,190 feet of piping • 176,100 feet of under drains • 328 miles of ditch stabilization • 1,277,100 sq. ft. of vegetative management. The 2020 DGLVR construction season will add eighteen new projects to the program. Additional information about the DGLVR Program and a list of the 2019 projects can be found on the District's website.

**Elevated Sand Mound (ESM) Design:** The District offers Elevated Sand Mound design services if you are applying for an On Lot Sewage Disposal System Permit. You can contact me directly at 724 545 3610 or the District at 724 548 3425 for additional information.



## **Resource Conservationist – Agricultural Conservation / Nutrient Management**

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I coordinate the Armstrong County Agricultural Land Preservation Program, review Nutrient Management Plans, and perform fieldwork as an Agricultural Conservation Technician. I also coordinate the Armstrong County Envirothon, Annual Tree & Seedling Sale, and the Annual Fall Conservation Tour. You can contact me by phone at 724-545-3628 or email me at [jjjschaub@co.armstrong.pa.us](mailto:jjjschaub@co.armstrong.pa.us)

### **Nutrient Management**

Armstrong County has 9 agricultural operations that have current Act 38 approved Nutrient Management Plans for a total of 1,524.42 managed acres. I am currently working with 2 farmers to develop their Nutrient Management Plans.

A farm is required to get an Act 38 Nutrient Management Plan if they are a Concentrated Animal Operation (CAOs). CAOs are defined as operations where the animal density exceeds two animal units per acre on an annualized basis (AEU). An AU is defined as 1,000 pounds of animal live weight. However, farms with less than 8AEUs are not required under this law to have an approved Act 38 Nutrient Management Plan regardless of the animal density on the farm.

### **Manure Management**

Every farm in Pennsylvania that land applies manure, whether they generate the manure or import it from another operation, is required to have a written Manure Manual Plan. For farms not defined as Concentrated Animal Feeding Operations (CAFOs) or Concentrated Animal Operations (CAOs), Manure Management Plans can be prepared by the farmer. Manure Management Plans do not have to be submitted for approval but must be kept on the farm and made available upon request to DEP or the local county conservation District.

Pennsylvania Chapter 91.36 addresses pollution control and prevention at agricultural operations. Chapter 91.36 refers to the DEP Manure Management Manual (MMM) as containing standards

for development of a Manure Management Plan. The MMM is available to assist farmers to develop a written Manure Management Plan.

The Armstrong Conservation District hosted a Manure Management Workshop on February 20 and March 20, 2018 for farmers in Armstrong County. The Armstrong Conservation District will host a Manure Management Workshop on February 12, 2019 for farmers in Armstrong County. I will continue to work individually with farmers to create Manure Management Plans and hold workshops in the County as needed.

### **ACT Program**

I work with the NRCS staff at the Conservation District to assist producers and landowners with implementing Best Management Practices on their land. Funds from the PA Growing Greener Program, REAP, and other federal programs have provided cost-share incentives to farmers wishing to install Best Management Practices.

The Armstrong Conservation District is continuing to help farmers install best management practices (BMPs) in the Campbell Run Watershed (DEP Growing Greener Grant). Campbell Run Farms installed streambank fencing, riparian forest buffer, stream crossing, manure storage facility, animal trail & walkway, and roof runoff system. We are currently working on implementing additional agricultural BMPs for their operation.

The project at Edward Huston's farm installed a Roofed Heavy Use Area with a Manure Storage Facility and associated best management practices in the Campbell Run Watershed. The Armstrong Conservation District also worked with Edward Huston worked to install the following agricultural BMPs: Heavy Use Area Protection, Manure Storage Structure, Roofs & Covers, Roof Runoff Control, Underground Outlet, Access Road, and Fencing as recommended by NRCS and ACD. Edward Huston developed an Act 38 Nutrient Management plan for their operations.

Edward Huston- Heavy Use Area with Manure Storage and associated BMPs



The Armstrong Conservation District is continuing to help 3 farmers install agricultural best management practices (BMPs) in the Garretts Run Watershed. The agricultural BMPs could include up to 2 Heavy Use Area with Manure Stacking Facility, 1 Manure Storage Facility, Watering Facilities, Stream Crossings, and Streambank Fencing. All 3 farmers developed and implemented Act 38 Nutrient Management Plans.

The Armstrong Conservation District is continuing to help farmers install best management practices (BMPs) in the Cowanshannock Creek Watershed (DEP Growing Greener Grant). Paul Stubrick's Farm in Kittanning Township installed a spring development, pipeline, watering system, and a water control structure. We are currently working on implementing additional agricultural BMPs on his operation (Roofed Heavy Use Area with Manure Storage Facility).

The Armstrong Conservation District was awarded a Growing Greener Grant for the 2018 application round for Laura Sue Stewart Farm in Rayburn Township to install agricultural BMPs such as Heavy Use Area with Manure Storage in the Cowanshannock Creek Watershed.

The Armstrong Conservation District was awarded a Growing Greener Grant for the 2018 application round for the Brian Kimmel Farm in Plumcreek Township to install agricultural BMPs in the Plumcreek /Crooked Creek Watershed. In 2019, Brian Kimmel completed a grazing system and a Heavy Use Area with Manure Storage for his cow calf operation. Tensar donated their TriAx Geogrid product to the Armstrong Conservation District to use as a subgrade stabilizer under the structure, saving the landowner time and money in construction costs. Next year, Mr. Kimmel plans on installing an additional Heavy Use Area with Manure Storage for his feeders.

Brian Kimmel- Heavy Use Area with Manure Storage and associated BMPs  
(Tensar TriAx (TX) Geogrid for subgrade stabilizer under the structure)



The Armstrong Conservation District applied for 1 DEP Growing Greener Grant in 2019 to help a farmer in the Campbell Run Watershed in Kittanning Township implement agricultural best management practices (BMPs) on their farm.

The Armstrong Conservation District helped 4 farmers fill out REAP applications in 2019 for a total of \$44,407 in tax credits. The Resource Enhancement and Protection (REAP) Program allows farmers and businesses to earn tax credits in exchange for “Best Management Practices” (BMPs) on agricultural operations that will enhance farm production and protect natural resources.

REAP is a first-come, first-served program – no rankings. The program is administered by the State Conservation Commission (Commission) and the tax credits are awarded by the Pennsylvania Department of Revenue. Eligible applicants receive between 50% and 75% of project cost in the form of State tax credits for up to \$250,000 per operation in a 7-year time-frame. The tax credits can be used incrementally (as needed) for up to 15 years to pay PA state income tax. Farmers and landowners can elect to sell the tax credits after 1 year.

## **Armstrong County Agricultural Land Preservation Program**

The Armstrong County Agricultural Land Preservation (ACALP) Board consists of seven board members that reside in Armstrong County; Bill Kronen, John Bennett, Paul Stubrick, Spurgeon Shilling, Terry Bowser, Marlene Kammerdiener, and Troy Goldstrohm.

The purpose of the program is to protect viable agricultural lands by obtaining agricultural conservation easements, which prohibit the development or improvement of the land for any use other than agricultural production. This program provides up to \$2,000/acre compensation to landowners in exchange for them to voluntarily give up the right to develop their private property.

The ACALP Board and the County Commissioners purchased 6 agricultural conservation easements from the following landowners; Suzanne and Edgar Bruce (Burrell Township), Meredith Patterson (Kiskiminetas Township), Scott Morrison (South Buffalo Township), George and Marsha Kepple (Sugarcreek Township), and Richard Shirey (Redbank Township) for a total of 539 preserved acres. The ACALP Board is currently working on purchasing an agricultural conservation easement from Clayholm Farms for 149.00 acres located in West Franklin Township.

## **Armstrong County Envirothon**

The 14<sup>th</sup> Armstrong County Envirothon was held at the Outdoor Discovery Center on April 24, 2019. Eleven teams of high school students from Armstrong High School, Apollo-Ridge High School, Freeport Senior High School, Leechburg High School, Lenape Tech School, and West Shamokin Jr. Sr. High School competed against each other in the event.

The Envirothon is designed to give students an opportunity to acquire and demonstrate their knowledge of environmental resources and their connection to each other and human activities. The students are challenged in the areas of aquatic ecology, forestry, soil / land use, wildlife, and a current environmental issue. The 2019 current environmental issue was “Agriculture and the Environment-Knowledge and Technology to Feed the World”

The West Shamokin High School winning team represented Armstrong County at the Pennsylvania State Envirothon at University of Pittsburgh Johnstown and Windber Recreation Park on May 21 and 22, 2019.





1<sup>st</sup> Place- West Shamokin High School-Rick's Rangers

Left to Right: Matt Petras, Sam Barker, Sydney Dailey, Ethan Adamson, Kenny Muth



2<sup>nd</sup> Place- West Shamokin High School-Golden Geese

Left to Right: Haley Bradeis, Sarah Stephenson, Jenna Miller, Shane Krizmanich, Carter Eddy



3<sup>rd</sup> Place Team-Freeport Senior High-Vespula Vulgares

Left to Right: Hayden Bash, Cameron Findlay, David Kinniburgh, Josh McCoy, Tori Negley

The next Armstrong County Envirothon will be held on April 29, 2020 at the Outdoor Discovery Center at Crooked Creek. Competitors must be enrolled in grade levels 9 through 12 or equivalent home education program ranking. Teams comprising of five students are tested in the five subject areas including aquatics, forestry, soils, wildlife, and a current issue. A new current issue subject is chosen each year.

If you are a business or an individual and would like to donate to the Envirothon, please contact Jessica Schaub at 724-545-3628 or e-mail [jjschaub@co.armstrong.pa.us](mailto:jjschaub@co.armstrong.pa.us). For more information about the Envirothon, please visit [www.envirothonpa.org](http://www.envirothonpa.org).

**Annual Fruit Tree and Seedling Sale**

As a service to the area landowners, the Armstrong Conservation District conducts an annual fruit tree and seedling sale in April. The fruit trees and seedlings offered each year are dependent on the availability at the nurseries.



We sold 355 fruit trees and 2,750 seedlings for in 2019:

The following varieties of fruit trees were available for sale in 2019:

- Apple:** Crimson Crisp, Daybreak Fuji, Gala, Granny Smith, Golden Delicious, Honeycrisp, Nova Spy
- Peach:** Flamin' Fury, FlavrBurst, Loring, Redhaven, Sugar Giant
- Pear:** Bartlett, Red Clapp's
- Plum:** Fortune, Methley, Santa Rosa
- Seedlings:** American Elder (Elderberry), Austrian Pine, Button Bush, Colorado Blue Spruce, Douglas Fir, Eastern Redbud, Eastern White Pine, Fraser Fir, Norway Spruce, Persimmon, and Sawtooth Oak.



The Armstrong Conservation District also provides an annual donation of evergreen seedlings to all the 3<sup>rd</sup> grade students in Armstrong County. These total over 900 seedlings distributed. We would like to thank Mr. Steve Misera and his students from Lenape Tech Natural Resources Department for all of their help to package the trees. The Annual Tree Sale and Arbor Day distribution would never be successful without their support and assistance. Thank you!

If you would like to receive an order form or if you would like to offer any purchase suggestions for next year, please contact Jessica Schaub at the Armstrong Conservation District Office at 724-545-3628.

### **Resource Conservationist - Watershed**

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I started as the new Watershed Educator and Project Specialist for the district in April 2019. Previously, I was an AmeriCorps member for the Western Pennsylvania Conservancy's Watershed Conservation Program and a sampling technician for Environmental Service Labs. I have bachelor's degrees in Biology and Geography.

ACD addresses water quality issues through our Watershed Conservation and Restoration Program. ACD receives Growing Greener funds from the DEP for a Watershed Specialist to

focus on water quality improvement through District and grassroots initiatives. The Watershed Specialist/Resource Conservationist provides Watershed Associations with assistance such as technical support but also works with municipalities, sportsman's clubs, Trout Unlimited, and any other groups that carry out water quality projects throughout the county.

#### Restoration Projects:

In 2019, 3 restoration projects were completed and 1 project started construction:

- Silver Rock I: ACD constructed passive wetlands for mine discharge affecting an UNT to the Allegheny River on a bond forfeiture site in conjunction with DEP Bureau of Mining and Reclamation. Additional erosion issues that were present in this location were also addressed. The system consists of a constructed passive wetland treatment system that discharges into a secondary treatment pond. This pond then discharges to a third constructed passive wetland before entering the waterway under Silver Rock Road. Iron levels from the discharge are 3.402 mg/L and manganese levels are 5.219 mg/L. After flowing through the treatment systems, iron levels have been reduced to 0.384 mg/L and manganese levels have been reduced to less than 0.050 mg/L.



- Darmac 14: ACD worked with the DEP Bureau of Mining and Reclamation to construct a passive wetland treatment system for mine discharge from a bond forfeiture site. The mine previously discharged directly into an UNT to Glade Run, a stocked trout stream. The system consists of vegetated waterway leading from the mine discharge into the constructed wetland. An additional wetland below the first one removes most of the remaining metals before the discharge is allowed to enter the stream. Discharge from the mine site contains about 15 mg/L of iron and 18 mg/L of manganese. Downstream samples collected after the treated discharge mixes with the stream at Pleasantview Drive show iron levels below 0.300 mg/L and manganese levels around 0.500 mg/L.



- Kimmel Landowner Reclamation: ACD worked with the landowner and their selected contractor to complete a Landowner Reclamation Project with bond forfeiture money from the DEP Bureau of Mining and Reclamation and the State Conservation Commission. The site was a former surface mine that was never properly reclaimed to approximate original contour with an exposed highwall, pit area, large spoil pile, and was the location of illegal dumping. Top soil from the site and the roughly 40,000 cubic yards of spoil were used to regrade the site. This project site was a stop on the Fall Conservation Tour.



- Silver Rock II: Work started in the fall of 2019 on the Silver Rock Wetland – Phase II site, and was completed in February 2020. This project focused on additional mine seeps on the Silver Rock site. The project was in conjunction with DEP Bureau of Mining and Reclamation. The treatment consists of multiple passive treatment system wetland ponds to settle out and remove metals, much like those constructed for the seep at Phase I. There is also an additional manganese oxidizing bed for added manganese removal. The iron level from one of the seeps is 4.582 mg/L and the manganese is 3.161 mg/L.





#### Education:

A large part of the watershed program is to provide watershed education to the local community. I accompanied the MED to 10 events at schools and community events in the county. I have held 7 educational events for schools, the boy scouts, and the community.

We also welcomed a new member of our team, Myrtle the Conservation Turtle. Myrtle, a box turtle, was given to us by the PA Fish and Boat Commission for educational uses when her previous owner had to enter a nursing home. She will accompany the MED to local fairs and events as well as travel to education events to help teach children and adults about watershed conservation.



Other 2019 accomplishments include:

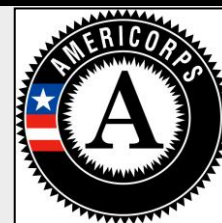
- Submitted 4 applications for Growing Greener projects totaling \$407,846.70.
- Attended meetings for conservation and watershed organizations including Armstrong County Sportsmen and Conservation League, Arrowhead Chapter of Trout Unlimited, Cowanshannock Creek Watershed Association, Crooked Creek Watershed Association, Kiskiminetas Watershed Association, Penn's Corner RC&D, Roaring Run Watershed Association, and Western Pennsylvania Coalition for Abandoned Mine Reclamation
- Took 9 water samples and 4 macroinvertebrate samples for Jessica's Growing Greener Agriculture BMP grants
- Assisted CVC with uploading data from 3 dataloggers in the county and conducted 3 macroinvertebrate surveys
- Partnered with WPC to install fish habitat and streambank stabilizations structures on 1,400 ft of Buffalo Creek and planted 100 trees.
- Provided technical assistance to 7 landowners
- Worked with Gregg Smith to learn the DGLVR Program and do stream bank width assessments

Future Plans for 2020: The watershed program has ambitious goals for 2020. The District will continue providing assistance to local conservation and watershed organizations, working with schools and local communities to provide environmental education, and holding workshops to educate homeowners and municipal workers. Upcoming projects include possible streambank stabilization and mine reclamation projects pending funding, as well as a 2 phase multifunctional riparian buffer planting in the spring and fall.

**AMERICORPS SERVICE MEMBER**

**Kodie Rearick** - [klrearick@co.armstrong.pa.us](mailto:klrearick@co.armstrong.pa.us)

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My name is Kodie Rearick, and I am currently serving my second 1700 term as a Pennsylvania Mountain Service Corps Member (a local initiative of AmeriCorps) at Armstrong Conservation District from September 2019 to August 2020. AmeriCorps is a program through the Corporation for National and Community Service that engages thousands of Americans of all ages and backgrounds, in a domestic Peace Corps. The members serve their communities in the areas of education, environment, public safety, and human needs, and receive a living stipend, educational scholarship rewards, and a wealth of experience. Located in Southwest and

Southcentral Pennsylvania, PMSC provides service opportunities through nonprofit and government organizations across a 16,000 square mile region.

As an AmeriCorps Service Member I have assisted with many of Armstrong Conservation District's programs and become a member of the Kiskiminetas Watershed Association. At ACD I have worked with the following programs; Agriculture, E&S, Watershed, the Mobile Environmental Display, and Dirt, Gravel, & Low-Volume Roads. The following report is a brief description of my involvement and contributions.

### **Agriculture Program:**

Since starting with ACD I have assisted Jessica Schaub with multiple aspects of the agriculture program, which has allowed me learn a lot about agriculture conservation. I have helped Jessica with surveying as-built specifications on agricultural best management practices, performing construction inspections, and document preparation. Beyond assisting Jessica I have worked with John Bohonak of NRCS to survey multiple farms for the implementation of agricultural best management practices.

### **Erosion & Sedimentation Program:**

Throughout my year of service I have continued to expand my E&S knowledge. I have assisted Holly Laird with various aspects of the program including construction inspections, complaints, plan reviews and preconstruction meetings. Holly also hosted a Rain Barrel workshop for which I assisted with the flyer for, keeping an accurate list of attendees and distribution of the barrels on the night of the event.

### **Watershed Program:**

I have been expanding my knowledge in the watershed program by assisting Maria Sorce with various activities. This has included going on technical assistance visits for streambank stabilization and riparian buffer implementation, and construction checks on a strip mine reclamation project and an AMD treatment system. Further, I was able to assist Maria with the writing of multiple Growing Green grants for streambank stabilization, an AMD treatment system and a permeable paving parking lot. ACD has continued to work with both the Conemaugh Valley Conservancy and the Western PA Conservancy where Maria and I were able

to assist with macroinvertebrate sampling on streams in Armstrong County, and a streambank stabilization tree planting in Craigsville.

### **Mobile Environmental Display (MED):**

During my service I have been working with Laura Sue Stewart and Maria Sorce with the MED. So far I have gone to schools and events, and assisted in educating both children and adults on watershed conservation and water quality and characteristics. In addition, I have been working with Laura Sue and Maria on various ideas to maintain and update the interactive displays that are in the MED.

### **Dirt, Gravel & Low Volume Road Program:**

While serving at ACD I have worked with Gregg Smith some on the DGLVR program as it is administered and how and when the contracts for the year are awarded. In addition, to learning about how the ACD DGLVR program operates I have attended the Environmentally Sensitive Road Maintenance training offered by the Center for Dirt & Gravel Roads.

### **ACD W.A.T.E.R. GeoTrail:**

In 2016 AmeriCorps members were awarded a grant to fund a series of Geocaches to be placed throughout the county at locations where the ACD has completed conservation projects. At each geocache there is a project description that describes each site, and a little bit about the ACD program that completed it. Since 2016, the GeoTrail has grown to 24 individual sites all over the county, with plans to add more in the future. Since my term started I have continued to maintain all the caches by visiting each one, and maintain up to date materials for the GeoTrail.

### **Kiskiminetas Watershed Association (KWA):**

Since starting my first AmeriCorps term in August of 2018 I have been involved with KWA. During 2019 I assisted with the implementation of a grant for an improved canoe/kayak launch in East Vandergrift, and I wrote and helped implement a Quick Response Grant to repair the water channel that funnels an AMD discharge to the first settling pond, at the Booker Passive Treatment System in Parks Township. In April, I assisted in a fish and macroinvertebrate survey

of Pine Run in Allegheny Township. Throughout the year KWA sponsored multiple highway clean-ups, and participated in the Great American Clean-up and the Ohio River Sweep initiatives, through which we were able to clean-up over two tons of garbage from the Kiskiminetas Watershed.