



Spring 2017 Newsletter  
Volume 3, Issue 2

# Conservation Matters



## ***Spring arrival...***

Spring is officially here! Now that the snow is almost melted away, it's time to start thinking about spring projects.

Our spring is always busy. We have our annual tree sale, the High School and Middle School Envirothons, and the start of our streambank restoration projects. We will also be administering a new 5-county mosquito control program. You can find more information about it in this issue.

We have also included our annual report in this edition. Please take the time to review the work completed in Northumberland County during 2016. You will see it was a busy year, and we expect 2017 to be even busier.

I mentioned in the last issue that spring was just around the corner. It's here! Smell the flowers, and enjoy these warmer months. We hope to see you out and about.

Sincerely,

*Judy Becker*

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## **Tree Sale Pickup Reminder**

If you ordered trees in our annual tree sale, you will be receiving a notice in the mail reminding you of the pickup dates. This year, pickup will take place on April 19th and 20th from 7am until 7pm at the Rockefeller Township building, located at 538 Seven Points Road, Sunbury. If you are unable to pick up your trees, please arrange for someone else to. We do not have the room in our office to store trees.



If you missed out on ordering trees this year, we usually have extras. Please visit us on the dates of pickup (April 19th and 20th) to see what we have available. Don't wait! Extras are sold first come, first serve.

Also, make sure you are on our tree sale mailing list. Contact our office at 570-495-4665 or email [ssnyder@nccdpa.org](mailto:ssnyder@nccdpa.org) to be added.

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*"Conservation Matters" is a  
quarterly newsletter published  
by the Northumberland County  
Conservation District, Sunbury.*

***Our Programs: Erosion and Sedimentation Control, National Pollution Discharge Elimination System (NPDES), Dam Safety and Waterway Management, Environmental Education, Nutrient Management, Chesapeake Bay Program, Dirt & Gravel Roads, Agricultural Land Preservation, Watershed Protection and Education***

***Visit [www.nccdpa.org](http://www.nccdpa.org) for more information. We are also on Facebook at [www.facebook.com/nccdpa](http://www.facebook.com/nccdpa).***

## New Program - Mosquito-borne Disease Control

By: Judy Becker, District Manager

The Northumberland County Conservation District has agreed to administer the Mosquito-borne Disease Control program for the PA DEP for 2017. NCCD will be conducting the program in 5-counties: Columbia, Montour, Northumberland, Snyder, and Union. The program will start in late April.

The control program will include trapping mosquitoes, sending them to PA DEP for testing for West Nile Virus and Zika Virus, and control (spraying) if necessary. The program will also involve educating the public about mosquito control.

To avoid a mosquito issue in your backyard, eliminate water left in flowerpots, cans, birdbaths, small ponds, and/or tire piles. Mosquitoes breed in standing water, so anything you can do to eliminate this breeding ground is helpful.

If you have any questions regarding this new program, please contact our office at 570-495-4665.



## Conservation Farmer of the Year Nominations

By: Bryanna Kenno, Agricultural Conservation Technician

Northumberland County Conservation District (NCCD) is pleased to accept nominations for Conservation Farmer of the Year. The farmer will be selected in the spring and awarded at the annual Awards Picnic in August. All farmers who have furthered conservation efforts by addressing resource concerns and improving natural resources on their operation are eligible.

The selection process involves completing a one page questionnaire (Attachment 1) to allow the District to develop an understanding of the operation. The District's Agricultural Conservation Technician will visit the nominated farms and review the entire operations. During the visit, a more comprehensive description will be obtained, and the application will be ranked using a scoring rubric. The operation with the highest amount of points will be selected as the award recipient.

Please find the questionnaire (Attachment 1) on NCCD's website: [www.nccdpa.org](http://www.nccdpa.org).

Please submit completed forms by April 28th to:

Northumberland County Conservation District  
Attn: Bryanna Kenno  
441 Plum Creek Road  
Sunbury, PA 17801



### Past Farmer of the Year Award Winners:

2014 Will and James Haupt	2001 Gary Truckenmiller	1992 RMD Shultz Farms	1975 Charles Masser
2012 Dr. Hugh and Lynn Wilson	2000 Kieffer & Son Farms, Inc.	1991 Donald Bordner	1974 Lewis Rishel
2008 Dean James	1999 Shaffer Productions, Inc.	1990 Harold Martz	1973 Paul Wertz
2007 John & Amy Pflieger	1998 Meckley's Farm	1989 Leon & Neil Wertz	1972 Roger Sweppenhiser
2006 Terry & Alpha Strohecker	1997 Kenneth N. & Kenneth H. Jones	1988 Myron O. Levan	1971 John Erb
2005 Carl Forman	1996 Strouse Farms	1987 K. James Kohl	1970 Allen Deiter
2004 R. Dale Groff	1995 Stanley Crone	1986 Joseph M. Gross	1969 Ernest Reiner
2003 Michael Percoskie	1994 Kelly Wasser	1985 Ernest Klinger	1968 John C. Clark
2002 J. Daniel Faus	1993 Raymond Lefever	1984 George C. Richard	1967 Arthur Shutt, Jr.
		1983 Joseph C. Scisly	1966 Paul Saneholtz
		1981 Donald G. Cotner	1965 Charles Shaffer
		1980 James C. Woodfuff	1962 Marlin Drumheller
		1979 Marlin Rothermel	1961 Wellington Rothermel
		1978 Luke Rebuck	1960 Eugene Meckley
		1977 Nevin Wintersteen	1960 Wesley Snyder
		1976 E. Delrue Schnure	1958 Lester Campbell



# CENTRAL SUSQUEHANNA THRUWAY UPDATE

by: Michael McCleary, Erosion and Sediment Technician

## Phase I of the CSVT:

Coffer dams have been constructed around the areas where the bridge piers will be constructed.



Concrete rings are installed 8' to 10' apart vertically as the pier area is excavated inside the coffer dam for reinforcement.



Piers in the river must be supported by 60" diameter pylons which are secured to bedrock (sometimes as much as 25' deep). Structures are fashioned by hand from steel rods to reinforce the pylons.

The reinforcing steel will be anchored to bedrock, and a steel tube casting form will be placed over it.



Concrete will be poured into the steel tube casting form to create the pylon. Eight of these pylons are planned to support each pier footer which will be constructed in the river.

10' thick concrete footers will be constructed over steel mesh structures fabricated from reinforcing bars.



You may contact us at any time by email or phone to be added to, or removed from, our mailing list. Simply call 570-495-4665 or email [info@nccdpa.org](mailto:info@nccdpa.org). If you would rather "Go Green," email us with the words "electronic newsletter" in the subject line and we will send our newsletter to you electronically.

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## CENTRAL SUSQUEHANNA THRUWAY UPDATE, *continued*



More reinforcing steel will be used to create a plinth which will sit on top of the concrete footer. The plinth is the beginning of the actual pier and is wider than the pier to help spread the weight of the bridge over a larger area for better stability.

When the reinforcement is complete forms will be placed around it, and concrete will be poured into the form around the reinforcing steel to create the plinth.



When the concrete of the plinth is cured, the pier will be constructed using more reinforcing steel rods and pouring concrete into a steel form constructed around the reinforcement. Because of the pier heights, the concrete will be pumped over the top of the form.



When the piers on the eastern half of the river are complete the causeway will be moved to the western side, and work will proceed on the remaining piers.

Earth moving activities continue on **Phase II of the project** which includes the main route of the thru-way from Ridge Road in Point Township to the existing four lane portion of SR 147 in West Chillisquaque Township.



Ridge Run Relocation, Ridge Road Relocation, and Ridge Road Interchange are currently under construction on the north side of current Ridge Road in Point Township. Ridge Road will be relocated under the interchange and will terminate with an intersection with SR 147 across from the UGI offices. The road will follow a path through the trees on the west side of this picture just below the skyline.

The route of the main alignment is under construction north of the Ridge Road Interchange, East of SR 147 and southeast of SR 405.



## Musings and Random Thoughts

By: Michael Hubler, District Board Chairman

I have a pile of rocks in our front yard. It's not a big pile, slightly larger in diameter than a five gallon bucket and stands proud of the surrounding turf by six to eight inches, but it is a curiosity. Most everyone who stops by the house asks a variation of the same question: "Why is there a pile of rocks in your front yard?" With the question asked, I can begin my "let's talk about stormwater" lecture.

Stormwater has little to do with storms and a lot to do with water. If precipitation (or snowmelt) is not infiltrated to shallow or deep groundwater and runs off the surface, it is stormwater. This can happen during an intense storm event (think thunderstorm), a long duration rain or a gentle shower. The infiltration capacity of the surface receiving the precipitation is the deciding factor. A woodland or meadow has tremendous infiltration capacity, agricultural fields slightly less capacity, and lawn areas less still. Then there are the impervious surfaces including roofs, driveways, walks, roadways, parking lots, etc. Precipitation falling in these impervious surfaces becomes stormwater regardless of the intensity of the storm. It just runs off. It's stormwater.

There are few redeeming qualities for stormwater in our locality. It causes soil erosion, increases the need for stormwater management facilities in commercial/residential developments, increases streambank erosion, intensifies flooding and carries pollutants, including sediment, which degrades stream habitat.

Obviously certain weather conditions will cause stormwater runoff, and we have no control over these events. Rain or snowmelt over frozen ground, intense storms that overwhelm the infiltration capacity of the landscape, and storm events on previously saturated soils are some example of weather conditions that cause stormwater runoff. We do have varying control over runoff that is caused by our activities. The farm community can rely on a suite of management and structural Best Management Practices which reduce stormwater runoff, including no till, contour strip cropping, diversions, terraces, and waterways to name a few. The nonfarm community also has opportunities to reduce stormwater runoff. Reducing the amount of impervious cover (do you really need a 15 ft. wide driveway or will 8 ft. be sufficient), installing a rain garden to collect and infiltrate runoff, directing downspouts to an infiltration area, installing a rain barrel, considering pervious pavement for new construction, or reducing the size of your lawn area. Every little bit helps.

Back to the pile of rocks. All the downspouts that collect runoff from our home's roof area are directed to undisturbed wooded areas to be infiltrated, except for half of the garage roof (about 400 sq. ft.). This downspout discharged to the driveway. Unacceptable! So, I dug a hole, filled it with rocks and directed this roof water to the hole. It works and what a conversation piece.



## Manure Management Workshops

The NCCD held a number of Manure Management workshops during the winter months to assist farmers with Manure Management Plans and Agricultural Erosion and Sediment Plans. 17 farmers were assisted with plans totaling 3,542 acres. Funding for the workshops was provided by the Pennsylvania Department of Environmental Protection through the Chesapeake Bay Implementation Grant and the Clean Water Fund. If you still need assistance with a Manure Management plan and/or Agricultural Erosion and Sedimentation plan, please contact Bryanna Kenno at 570-495-4665 x304.



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kweaver@afo.net



# Myths and Misconceptions About Stream Erosion

By: Jaci Harner, Watershed Specialist

**Myth: Flooding wouldn't happen if the creeks were straightened and dredged or if we could remove gravel bars.**

- Reality: Straightening, dredging and gravel bar removal may worsen flooding especially if the stream is widened. When a stream has bends and meanders, water flow slows down. In comparison, a straight stream will flow much faster and cause more damage during high water/flood situations. Also, removing gravel bars does not address the source of the problem, which is increased erosion and runoff from surrounding land.



*This meander in a local stream helps slow water flow during heavy rains. The site is also stabilized with log structures, unrestricted grass growth, and tree roots.*

**Misconception: We used to be able to have gravel removed in the past years. Can't we do that now?**

- Reality: In many instances, individuals would be able to remove gravel bars, with the proper permit. However, because streams continually pick up and deposit sediment, gravel bars typically return to the same location.

**Myth: Somebody else is responsible for this erosion or flooding problem on my property.**

- Reality: Landowners are responsible for maintaining their own streamside property. While upstream practices do affect your property, it is also true that what you do on your property will protect you from erosion. You can prevent some bank erosion by not mowing right up to the streambank and by leaving a buffer of trees, native plants and shrubs. While it is your responsibility as a landowner to address the problem, the conservation district is here to help. We may be able to connect you with some resources that could be of further assistance.

**Misconception: I can't get a permit to allow me to work in the stream.**

- Reality: Most permits to work in stream are possible to obtain, as long as you fill out the appropriate paperwork and pay the fee. Contact your local conservation district for assistance. The district can guide you through the process or connect you with the appropriate individuals for further assistance.

**Myth: Hard armoring (such as riprapping, installing gabion baskets, etc.) is the most effective approach in stabilizing eroded banks.**

- Reality: Streambank stabilization methods need to be designed to the individual site. Risks and benefits need to be considered to determine whether hard armor is required or if a different method of stabilization can be used. Today, gabion baskets are rarely used, as they lead to a loss of streamside habitat, may increase erosion downstream, and create an unnatural appearance. Instead, structures such as log deflectors are used to direct water flow away from the bank. Another effective practice is to slope the bank back so that it is not so steep, and then plant trees, shrubs and/or riparian buffers. In a pasture, a fence would be placed to keep animals from accessing (and harming) the newly vegetated bank.



*A stream site that has moderately sloped banks with a generous amount of vegetative growth.*

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## Myths and Misconceptions About Stream Erosion, *continued*

**Myth: Materials from the creek and flood plain can be used to build the banks up, making a levee, which will protect the property from flooding.**

- Reality: Loose material such as floodplain soil or streambed gravel is not effective for flood prevention. It is easily picked up by a rising stream during a flood. This means that not only is the levee likely to break, leaving property vulnerable to damage, but also that the loose soil/gravel material washes away, making problems for neighbors downstream.

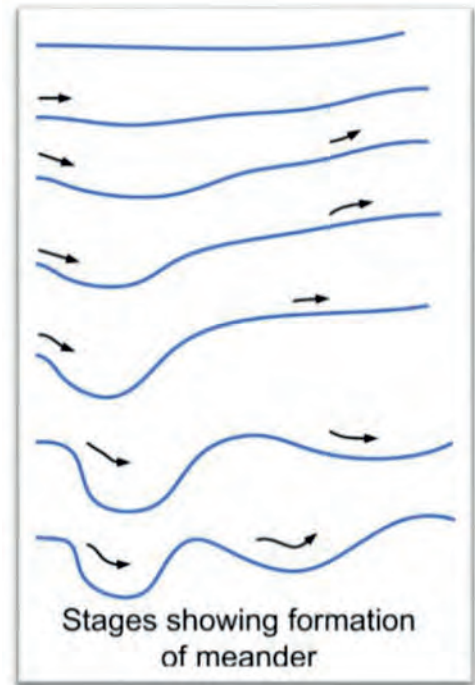
**Misconception: When we could clean and straighten streams, it never flooded like this.**

- Reality: Today we have stronger, wetter storms. We also have more development and less vegetation in many places. Trees use up and also slow down water flow. Therefore, if there are now more houses, roads and parking lots and fewer trees, more water will flow into the stream.

**Myth: The stream is moving! Thirty years ago it was over there. We should be able to move it back.**

- Reality: It is natural for streams to move. Water seeks the easiest path downhill and over time, this means that the stream may cut into your property where you don't want it to be. If this had been common knowledge years ago, perhaps more homes and structures would have been built far enough from streams to allow the stream space to meander. However, moving the stream back to its original location can actually worsen erosion. Practices such as maintaining riparian buffers, building on higher ground and not mowing up to the streambank are ways to help protect your property.

The conservation district is available to provide technical assistance with stream site challenges. We encourage you to contact us to answer questions, schedule a site visit, provide useful literature, or arrange an educational workshop.



## Winter Forum

On March 7th, we held our annual Winter Forum at the Revival Tabernacle in Watsontown. Two concurrent sessions were held covering topics affecting agriculture and municipalities.

Topics for the agriculture sessions included "Farm Planning," by Dean James of Don Cotner Farms; "Pesticide Recordkeeping" and "Sprayer Calibration," presented by Elizabeth Bozak of Penn State Extension; and "Herbicide Resistant Weeds," presented by David Messersmith from Penn State Extension. Two core and two category credits were offered through the PA Department of Agriculture for attendees.

Municipality session topics included "Roundtable for Legal Questions Municipalities May Have," presented by Attorneys Roger Wiest, II and James Bathgate of Wiest, Muolo, Noon, Swinehart, and Bathgate; "The Agriculture, Communities and Rural Environment Act (ACRE)," presented by Attorney M. Sean High of the Penn State Center for Agricultural and Shale Lawn; and "Applying for Dirt, Gravel and Low Volume Roads Project Funds," by Michael McCleary of Northumberland County Conservation District.

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# Recordkeeping: What Records Are Required On My Farm?

By: Bryanna Kenno, Agricultural Conservation Technician

The office. These two words are enough to make anyone cringe! How many of us enjoy sitting down in our office and sorting through endless piles of paperwork? Few and far between! Between bills, receipts, farm plans, maps, and invoices, the list is endless! Hopefully you have established a method to keep your office organized and clutter free.

For farmers, an organized office is essential. Within your office, are you able to locate your farm records? Do you even keep records of your farming operation? As required by the Manure Management Plan Workbook, record keeping is an important and required part of every farming operation in Pennsylvania. Record keeping demonstrates the implementation of the Manure Management Plan and also assists the farmer in making future nutrient application recommendations. Accurate records must be kept on each farm and should be provided to the Pennsylvania Department of Environmental Protection (DEP) upon request. Farmers can utilize the record keeping forms found in the Manure Management Plan Workbook or use their own system if all required information is provided.



DEP requires four types of records to be kept on each farm, as they apply:

1. Manure Application Records
2. Crop Yield Records
3. Manure Transfer Records
4. Manure Storage Records

Any farm that land applies manure must keep manure application records. Records should follow the calendar year and be retained for three years. **Manure application records must include: date, field ID, acreage, manure group, crop group, and application rate.** This information should reflect the information in the Manure Management Plan Summary portion of the workbook.

Any farm that grows and harvests crops must keep crop yield records. Records should follow the calendar year and be retained for three years. Crop yield records are also a good way for a farmer to compare yearly averages and look for trends. **Crop yield records must include: field ID, crop group, date harvested, yield goal, and actual yield harvest.** This information should reflect the information in the Manure Management Plan Summary portion of the workbook.

Any farm that transfers manure must keep manure transport records. Records should follow the calendar year and be retained for three years. Manure transfer records should be used when manure is transported off a farm. **Manure transfer records must include: date, name of importer/broker, address and phone number of importer/broker, manure group, amount of manure transferred, and crop group/application rate.**

Any farm that has a manure storage facility on their farm must inspect it on at least a monthly basis. Records should follow the calendar year and be retained for three years. **Manure storage monthly inspection records must include: storage name, inspection date, manure depth (liquid), depth from surface of manure to freeboard (liquid), leak detections (leaks, overflows, seepages), and structural integrity (cracks, erosion, slope failures, linear deterioration, rodent holes, large vegetation, excessive or lush vegetation, fencing issues, loading area issues).** This information should reflect the information in the Manure Storage Facilities portion of the workbook.

While record keeping can seem like just another item on your to do list, proper record keeping will be beneficial in the long run! Think of the relief you will feel when you need to look back at past records and aren't flipping through stacks of paper to find what you're looking for. I know the task can be tedious, but take a few moments to jot down important information to properly maintain your records. Develop your own method of organization. Perhaps you would rather keep records in a spiral notebook instead of a three ring binder. Also, ask your conservation district for help.

Northumberland County Conservation District has record keeping forms available and can clarify any questions you may have. While you're doing some spring cleaning in your office this year, be sure to keep record keeping in mind!

*Stay up to date on our events  
by visiting [www.nccdpa.org](http://www.nccdpa.org) or  
[www.facebook.com/nccdpa](https://www.facebook.com/nccdpa).*





## 2016 Annual Report

# About Us...

## 2016 Directors

**Richard Daniels**  
Chairman, Farmer Director  
*Since 2012*

**Leon Wertz**  
Vice-Chairman, Farmer Director  
*Since 2000*

**Richard Shoch**  
Commissioner Director  
*Since 2012*

**John Kopp**  
Farmer Director  
*Since 2004*

**Dave Crowl**  
Chairman, Public Director  
*Since 2006*

**Gary Truckenmiller**  
Farmer Director  
*Since 2013*

**Michael Hubler**  
Public Director  
*Since 2016*

## Staff

**Judy Becker**  
District Manager

**Shirley Snyder**  
Administrative Assistant

**Jaci Harner**  
Watershed Specialist

**Michael McCleary**  
Erosion and Sediment  
Technician

**Bryanna Kenno**  
Agricultural Conservation  
Technician

## 2016 Associate Directors

**Dave Swank**  
Retired Well Driller  
*Since 1976*

**Dr. Blair Carbaugh**  
Retired Professor, Lockhaven University  
Former NCCD Board Member  
*Since 2006*

**Albert Mabus**  
Former NCCD Board Member  
*Since 2008*

**Ted Carodiskey**  
Little Shamokin Creek Watershed  
Association, Secretary  
*Since 2010*

**John Pfleegor**  
Farmer  
Former NCCD Board Member  
*Since 2013*

**Michael Erdley**  
Area Sales Manager, New Enterprise  
Stone & Lime Co., Inc.  
Former NCCD Board Member  
*Since 2016*



*Left to right: Dave Crowl, Leon Wertz, Gary Truckenmiller, Richard Daniels, Michael Hubler, John Kopp, Richard Shoch*



# EROSION AND SEDIMENTATION CONTROL PROGRAM

The NCCD administers the Chapter 102 Erosion Control program through a signed delegation agreement with the Department of Environmental Protection (DEP). Under Chapter 102 delegation, NCCD conducts the following program responsibilities: community outreach, permit application receipt & review, permit approval or denial, consultation, site monitoring and final inspection upon project completion. These functions require coordination with DEP, the applicants and their consultants and municipal officials.

There are currently 75 active, approved NPDES permits in Northumberland County which require monitoring. Site visits are made to these projects on a routine basis and as complaints are received.

In 2016 under a Delegation of Authority Agreement with DEP pursuant to PA Code Title 25 Chapter 102 (Erosion and Sediment Control), 30 Erosion and Sediment Control Plans (E&S Plans) which were too small to require a permit were processed by N.C.C.D. The disposition of these 35 E&S Plans was as follows:

- 8 - were received and filed as Courtesy Copies for future reference
- 2 - agricultural construction projects– **Approved**
- 6 - utility projects - **Approved**
- 12 - fill sites - **Approved**
- 6 - minor land developments - **Approved**
- 2 - were Chapter 105 related - **Approved**
- 1 - recreational development – **Approved**

Under the same Delegation of Authority Agreement 3 Individual National Pollution Discharge Elimination System (NPDES) permit applications were processed as follows:

- 1 – Dam Repair – **Approved / Field Work Pending**
- 1 –Permit for CSVT Thruway for Penn DOT – **Northern Section Phase 2, & 3 Approved / Work Begun**
- 1 - Permit for the proposed Northumberland County Prison Site which included remediation hazardous materials from previous industrial use of the site – **Withdrawn due to new site selected.**



CSVT: Looking East toward Northumberland County from Rt. 15.



CSVT: Looking East from southern approach to river bridge. Causeway is near top of picture.

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## EROSION AND SEDIMENTATION CONTROL PROGRAM, cont.

Under the same Delegation of Authority Agreement 18 General NPDES permit applications were processed as follows:

- 3 - Permit renewals - **Approved**
- 1 - Major Modification of previously issued permit – **Approved**
- 1 - Agricultural construction project - **Approved**
- 4 – Utility projects - **Approved**
- 1 – Penn DOT Road Project - **Approved**
- 1 – Residential development – **Approved**
- 1 – Institutional development - **Approved**
- 4 – Commercial developments – **Approved**
- 2 – Recreational - **Approved**



*CSVT Northern Section Phase 2: Looking north across Ridge Road at Ridge Run relocation, Ridge Road relocation, and Ridge Road interchange.*

Under the same Delegation of Authority 2 ESCGP-02 (Oil & Gas) permit applications were processed as follows:

- 1 – UGI 20” Diameter Gas Transmission Line through East Chillisquaque and Point Townships & 4 other counties – **Approved – Authorized work nearly complete**
- 1 – ASR 42” Diameter Gas Transmission Line through Ralpho, Coal and East Cameron Townships & 9 other counties spanning 3 DEP Regions – **Still under review**



*Pipe and Trench looking south from SR 642*



*Pipe laid out over Montour Ridge in East Chillisquaque Township*

*(continued on next page)*



## EROSION AND SEDIMENTATION CONTROL PROGRAM, cont.



*Welded pipe being fed into boring under Susquehanna River in Point Township.*



*Right-of-way after pipe was installed, trench backfilled and seed and mulch was applied. From Snyder Road looking South over Montour Ridge in East Chillisquaque Township.*

## DAM SAFETY AND WATERWAY MANAGEMENT

In 2016 under a Delegation of Authority Agreement with DEP pursuant to PA Code Title 25 Chapter 105 (Dam Safety and Waterway Management) the E&S Technician has processed and acknowledged registrations to use the following 29 General Permits:

- 3 – GP 01 – Fish Habitat Enhancement Structures
- 1 – GP 02 – Small Docks and Boat Launching Ramps
- 5 – GP 03 – Bank Rehabilitation, Bank Protection and Gravel Bar Removal
- 1 – GP 04 – Intake and Outfall Structures
- 7 – GP 05 – Utility Line Stream Crossings
- 3 – GP 06 – Agricultural Crossings and Ramps
- 4 – GP 07 – Minor Road Crossings
- 5 – GP 08 – Temporary Road Crossings

In accordance with the duties under the Chapter 102 and Chapter 105 Delegation of Authority Agreements, the E&S Technician has:

- Investigated and resolved 12 complaints
- Attended 44 meetings
- Prepared 7 news releases
- Made 130 site visits to 71 different sites
- Participated in 253 consultations with 445 different people



## DIRT AND GRAVEL/LOW VOLUME ROADS

The E&S Technician is also responsible for managing the Dirt, Gravel & Low Volume Paved Roads Program for the Northumberland County Conservation District. In this capacity he has received confirmation of receipt of the Districts 2015-2016 allocation of funds and sent advertisements to all eligible entities within the county to submit applications for projects. The District received \$104,981.00 to be awarded to Low Volume Paved Road projects and \$205,971.00 to be awarded to Dirt and Gravel Road projects. These funds were committed to the following projects:

### **Low Volume Paved Roads:**

**Gun Club Road in Jordan Township**—\$57,227.50 to improve drainage and SR 3016 and reconstruction of approximately 200 linear feet of paved road (including subbase improvements). This project is to be completed in 2017.

### **Dirt and Gravel Roads:**

**Lahr Road in Shamokin Township**—\$55,000.00 for resurfacing of 2,400 linear feet of roadway with DSA. The drainage problems on this road were addressed with a previous grant in 2010. This project was completed in 2016.

**Fisher Ridge Road in Jordan Township**—\$51,649.00 for improved drainage by addition of sub-drains and resurfacing of 1,700 linear feet of roadway with DSA. This project will be completed in 2017.

**Bellas Hollow Road in Rush Township**—\$96,000.00 to improve drainage by redressing ditches and adding ditch outlets, then resurfacing one mile of roadway with DSA. To be completed in 2017.

## **NCCD Quality Assurance Board**

***Michael McCleary (NCCD)***

***Michael Erdley (NCCD)***

***Janette Leshner (NRCS)***

***Jacob Bennett (Fish and Boat Commission)***

***Ted Carodiskey (NCCD/Advisory, non-voting)***

***Judy Becker (NCCD/Advisory, non-voting)***





## NUTRIENT MANAGEMENT

NCCD, under a delegation agreement with the State Conservation Commission, administers the Pennsylvania Nutrient Management Program, Act 38 (formerly Act 6 of 1993), in Northumberland County.

Under Act 38, Concentrated Animal Operations (CAOs) are required to develop and implement a Nutrient Management Plan. CAOs are defined as agricultural operations where the animal density exceeds 2 animal equivalent units (AEUs) per acre of land suitable for manure application on an annualized basis. An AEU is defined as 1,000 pounds of live animal weight and includes all livestock, whether for production, transportation, or recreation. Land suitable for manure application includes cropland, hayland, or pastureland (owned or rented) that is, or will be, available for the application of manure from the operation. Farmstead and forestland cannot be included in the acres suitable for manure application. Agricultural operations having less than 8 animal equivalent units are not classified as CAOs, regardless of animal density.

Currently, there are 12 CAOs, 8 CAFOs, and 3 VAOs in Northumberland County. During 2016, NCCD approved 7 nutrient management plans and completed 10 on-site status reviews.

In addition to Act 38 plans, the Agricultural Conservation Technician also completed 9 manure management plans, 7 agricultural erosion and sedimentation plans, and assisted 3 farmers with REAP applications.

## AGRICULTURAL LAND PRESERVATION

The NCCD coordinates the activities involved in the Agriculture Land Preservation Program for the county on behalf of the Northumberland County Agricultural Land Preservation Board. Applications are received during open application rounds, which are advertised. Open enrollment was held at the end of 2016. We received 6 new applications.

Applications are ranked using a two-part Land Evaluation and Site Assessment (LESA). The LESA looks at the quality of soils/site assessment, and considers local factors that may have an impact on the current or future viability of a farm.

Once the farms are ranked and the funding is provided from the State and the County Commissioners, the land development rights are purchased from the highest-ranking farms. The total number of farm easements purchased to date in the county is 21, totaling 2,338 acres. One farm easement was approved in 2016 in Delaware Township. Currently there are 57 farms on a waiting list totaling 6,609 acres.

### **2016 Northumberland County Agricultural Land Preservation Board:**

William Geise, Chairman	Richard Daniels, Vice-Chairman	Mary Crone, Secretary/Treasurer
Benny Snyder, Township	Dave Crawl, Contractor Director	Dave Becker, At-large Member
	Tom Boop, At-large Member	

## WATERSHED PROTECTION

The Conservation District supports watershed association development and projects with organizational and technical assistance provided by the Watershed Specialist. Watershed Associations invite members of a community to work together to solve or repair complex issues within their waterways and watersheds. Currently there are six watershed associations in Northumberland County. They are:

- Shamokin Creek Restoration Alliance
- Little Shamokin Creek Watershed Association
- Chillisquaque Limestone Watershed Association
- Roaring Creek Valley Conservation Association
- Tri-Valley Watershed Association
- Mahanoy Creek Watershed Association

The following is a summary of tasks performed by our Watershed Specialist during 2016:

- Tree Plantings
  - Planted 48 trees/shrubs at Irish Valley Campground, worth \$2,176.10
  - Planted 25 trees at Dimm property, \$1,709.99
  - Planted 15 trees and 15 forsythia at Long Environmental Center, \$1,556.94
  - Planted 6 trees/shrubs at Wilson property, \$381.04
  - Funded by a private foundation grant
- Fish Habitat Structure Projects
  - D. Jones site, Warrior Run:
    - \*1 log cross vane, 9 multi-log vane deflectors, 2 stabilized livestock crossings
    - \*3 modified muddsill cribs, 2 small log cross vanes (on tributary)
    - \*720 linear feet of stream bank fencing, 2 stabilized livestock crossings
    - \*Northcentral PA Conservancy (NPC) Partnership, using DEP Growing Greener (GG) funds
    - \*Worth \$33,199.51
  - Anonia/Elliot site, Little Shamokin Creek:
    - \*20 multi-log vane deflectors, 265' toe log, 1 log cross vane, 1 rock cross vane
    - \*improved access road, 9 single log vane deflectors, 2 root wad deflectors
    - \*2 modified muddsill cribs, totaling 140', 1 stabilized ag crossing
    - \*NPC Partnership, using DEP GG funds, worth \$38,867.21
  - Raker/Fasold site, UNT to Susquehanna River
    - \*24 multi-log vane deflectors, 11 single log vane deflectors, 6 log cross vanes
    - \*6 stone deflectors, 220' toe log, 4 modified muddsill cribs, totaling 400'
    - \*1 stabilized livestock crossing, 2,020 linear feet of stream bank fencing
    - \*NPC Partnership, using GG funds, worth \$96,565.13
- Collected electrofishing and macroinvertebrate data on Little Shamokin Creek, Limestone Run, and Warrior Run, comparing biological presence before and after project installation, working with Susquehanna University Freshwater Research Initiative and NPC, worth \$7,740



## WATERSHED PROTECTION, cont.

- Wrote and submitted PPL Foundation grant for Little Shamokin Creek Watershed Association, received partial grant award of \$2,000, used for educational sign
- Site 42 AMD Improvement Project
  - \*Sludge removal, replacement of underdrain piping, repair existing spillways
  - \*Replace stone lining, limestone bed installation, ATV deterrence boulders installed
  - \*Baffle installation at final polishing pond
  - \*Partnership with Anthracite Outdoor Adventure Area (AOAA) and Shamokin Creek Restoration Alliance (SCRA), using GG, Act 13 and Transco/Williams funds
  - \*Worth \$109,390.00
- Carbon Run AMD Project, 2 sites were addressed
  - \*Headwaters Site - Placement of high carbonate content limestone in spillway channel, conversion of existing pit to an anoxic limestone drain
  - \*Upper/Lower Bluegill Pond Sites - Excavation of 2 settling ponds, installation of anoxic limestone drain, installation of limestone check dams and limestone lined channels
  - \*NCCD provided technical assistance and grant support, AOAA administered this grant project
- Educational Activities:
  - \*Presented 2 rain barrel/storm water educational workshops, organized by Sunbury Hill Neighborhood, ~13 attendees
  - \*Presentation to Leck Kill Girl Scout troop- riparian buffers, native vegetation, ~4 attendees
  - \*Presentation to Elysburg Girl Scout troop- soils/food production, ~13 attendees
  - \*Presentation to Lourdes Envirothon Team, Soils and Aquatics, ~8 attendees
  - \*Helped at 3 Manure Management Workshops
  - \*Outdoor Field Trip for Lourdes and Mt. Carmel - Presentation on coal mining history, mine reclamation activities, riparian buffers, watershed description, macroinvertebrate identification related to water quality, students helped plant 45 trees/shrubs along Quaker Run, approximately 60 students attended, partnership with Kulpmont Borough and SCRA, funding from DEP Environmental Education Grant administered by Kulpmont Borough, worth \$2,900.00
  - \*Kayak Trip - Day on the Susquehanna River to educate local legislators, leaders and press on local water quality issues, Support from PA Fish and Boat Commission and Jim Charles of Selinsgrove, 11 attendees
- Kevin Brosious Farm Project
  - \*Installed 33' x 38' roof over gutter cleaner with concrete pad
  - \*Northumberland County Barnyard Growing Greener Grant
  - \*Worth \$22,206.15

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## WATERSHED PROTECTION, cont.



*Riparian Buffer Tree Plantings, April and May 2016*



*Electroshocking and Biological Assessment, June 2016*



*Outdoor Field Trip, October 2016*



## WATERSHED PROTECTION, cont.



*Stream Restoration Work; June, July, and August 2016*





## MEETINGS/OUTREACH

**4th Annual CD Forum – March 1, 2016.** This annual event provided 3 breakouts for farmers, municipalities, and contractors. Topics included Conservation Reserve Enhancement Program (CREP) Updates, Introduction to Sprayer Nozzles, Road Safety, Herbicide Resistant Weeds, PENN DOT Projects in the County, Municipal Ordinances, About the Ombudsman Program, Contracting for Government Grants and Local Permitting, Construction Hazard Recognition, and PA-One Call Updates. 16 vendors provided sponsorships to help fund the program and were on hand to speak to attendees. Vendors present included Crop Production Services of Bloomsburg; Channel Seed/Pine Hurst Acres of Danville; DuPont Pioneer; Cen-pe-co Lubricants; AgChoice Farm Credit of Lewisburg; LB Water of Selinsgrove; McTish, Kunkel and Associates of Monrosville; KIZ Resources, LLC of Altoona; American Excelsior Company of East Berlin; Sunbury Motors; Hoover Tractor of Mifflinburg; KW Enterprises, LLC of Milton; Rovendale Ag of Watsontown; PPL; RHP Law Group of Selinsgrove; and Valley Ag and Turf of Watsontown. 2 Category and 1 Core credits were offered to attendees.

**Twilight Meeting – September 8, 2016.** This year's Twilight Meeting was held at the Long Center for Environmental Stewardship and Education outside of Sunbury. Topics included Herbicide Resistant Weeds, Top Tips for Pesticide Applicators, and DEP Inspections Due to the Chesapeake Bay Reboot-What to Expect During An Inspection. Attendees received two category and two core credits.



### **46<sup>th</sup> Annual Tree Sale – Week of April 18, 2016.**

This year's tree sale was another great success. We sold 10,899 trees to 181 customers.

### **Susquehanna Valley High School and Middle School Envirothon – April 26 and May 10, 2016.**

The annual Susquehanna Valley High School and Middle School Envirothons are a joint effort of the Columbia, Montour, Northumberland, Snyder, and Union Conservation Districts. At our High School Envirothon, held at the Shikellamy State Park Overlook, Northumberland County had 12 teams. Warrior Run Team A was the winner. Our Middle School Envirothon, held at the Montour Preserve, had 12 teams. Mount Carmel Team C placed 3rd at the Middle School event.



*Northumberland County High School Envirothon Winner: Warrior Run Team A*



*Northumberland County Middle School Envirothon Third Place Winner: Mount Carmel Team C*



## 2016 AWARDS

### **Environmental Educator of the Year**

***Winner: Edward Thomas, Sunbury Christian Academy, 4<sup>th</sup> Grade***

*About the award:* The Northumberland County Conservation District honors a teacher who demonstrates leadership in environmental education through their class work and involvement in community activities.

*About the winner:* Edward Thomas is a 4<sup>th</sup> grade teacher at Sunbury Christian Academy. Mr. Thomas' students have participated in a variety of conservation-related lessons and activities. An example of these activities includes participation in a program called Trout in the Classroom, which is an interdisciplinary program designed for students and sponsored by the PA Fish and Boat Commission and the PA Council of Trout Unlimited. Students raised brook trout (PA's state fish) from eggs to fingerlings (3 inches). Under supervision, students were responsible for feeding, maintaining water quality, and keeping precise records. This program encompasses most of the school year as the eggs are delivered in November, and the trout are monitored and maintained until their release in May. PA Fish and Boat Commission assign a point of release and supervise students in the release of the trout in a locally approved stream. Through this program, the students learn the importance of a clean environment and the impact this has on wildlife, as well as the quality of life for humans. It also involves the food chain and offers many opportunities for classroom discussion.

Mr. Thomas also incorporates environmental education into other studies. He uses PA History to discuss our waterways and wildlife, Science to discuss natural resources, Language Arts for written assignments and creative writing, and Art for drawings and posters. His students entered an energy conservation poster contest showing ways people can conserve energy.

### **Swank Outstanding Conservation Organization Award**

***Winner: Sunbury Christian Academy Ecology Class***

*About the award:* This award is sponsored annually by David and Judy Swank of Elysburg in honor of their granddaughter, Shelby Palmer. It is presented to an outstanding conservation organization which has done exceptional conservation related work in the county.

*About the winner:* Under the direction of Mr. John Hernandez, the Sunbury Christian Academy Ecology class of 9 students partnered with the PA Trout in the Classroom and the PA Council of Trout Unlimited. Trout in the Classroom is an interdisciplinary program in which students learn about cold water conservation, while raising brook trout from eggs to fingerlings in the school aquarium. Students monitor the water chemistry and temperature, provide regular feedings, and study overall progress and health of the trout from the egg stage to fingerlings. The program culminates in the release of fingerlings into an approved local stream. Mr. Hernandez's Ecology class partnered with Mr. Edward Thomas' 4<sup>th</sup> grade class on this project.

Trout in the Classroom helps to support the local conservation of streams and trout.

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## 2016 AWARDS, cont.

### **Don Cotner, Sr. Memorial Scholarship**

***Winner: Elyse Noll, Elysburg***

*About the award:* We are proud to present this scholarship for an eighth year, which is sponsored by Don Cotner, Jr. in memory of his father. The award is given to a senior pursuing a degree in agriculture or an environmentally related field in the fall 2016 semester. Don Cotner, Sr. was a director for the Northumberland County Conservation District from 1960-1979. Cotner Farms began implementing a soil conservation program in the mid-1930s and has been actively conducting and promoting soil conservation practices ever since. In 1936, Cotner Farms became one of the first farms in central Pennsylvania to implement 'contour' farming. In recognition of over 50 years of practicing soil conservation, Don Cotner Sr. was named Pennsylvania Conservation Farmer of the Year in 1988. Mr. Cotner was a top ten finalist for the National Conservation Farmer that same year. Soil conservation continues at Cotner Farms today. All acreage is still farmed using no-till methods, cover crops are planted each fall, and diversion ditches, waterways, and terraces are maintained and improved upon annually. Employees of the farm routinely participate in soil conservation meetings and panels which provide information to legislators.

*About the winner:* Our eighth annual award winner of this scholarship is Elyse Noll, a 2016 graduate of Southern Columbia High School. She is the daughter of David and Roseann Noll. Elyse has been accepted to Bucknell University for the fall of 2016. Her career plans include pursuing a degree in Environmental Engineering. Her extracurricular activities have included Field Hockey, Track and Field, National Honor Society, Future Business Leaders of America, Model United Nations, and the Pennsylvania Envirothon. Her Science teacher, Kristen Vitkauskas, stated the following about Elyse, "Elyse is a very committed and mature individual. She takes on challenges eagerly, which is evident in the number of activities in which she is involved. She is trustworthy and accountable, plus Elyse follows through on responsibilities with little direction. I have every confidence in her." During her senior year, Elyse had a grade average of 99.865.

#### **NCCD would like to thank 2016 members for their support.**

##### **Conservation Benefactor:**

KW Enterprises, LLC, Milton

##### **Friend of Conservation:**

Hoffman Brothers Lumber, Inc., Richfield

##### **Associate Members:**

AET Consulting, Lititz

Ag Choice Farm Credit ACA, Lewisburg

Aqua Pennsylvania, Inc., Shamokin

Blair and Mary Carbaugh, Danville

Daniel Shingara Enterprises, Inc., Paxinos

Doli Construction Corporation, Chalfont

First National Insurance, Selinsgrove

Glenn O. Hawbaker, Inc., Montoursville

KPI Technology, Elysburg

Kauffman Tractor & Implement Painting, Dornsife

Keefer and Associates, Inc., Sunbury

Larson Design Group, Williamsport

Mark Ferster & Sons Excavating, Dornsife

Pioneer Seed – Eric Moser, New Columbia

RJ Hoffman & Sons, Inc., Mt. Pleasant Mills

Robert C. Snyder Farms, Inc., Northumberland

Rovendale Ag and Barn, Inc., Watsontown

Scattered Acres Farm, Elysburg

Trumbull Corporation, Pittsburgh

Valley Ag & Turf, LLC, Watsontown

Watson Excavating, Inc., Watsontown

##### **Contributing Member:**

Dutch Mill Bulbs, Hershey

Earthwork Services, LLC, Danville

##### **Affiliate Members:**

Brewers' Outlet, Sunbury

Central Builders Supply Company, Sunbury.

Coleman Environmental Engineering, Zion Grove

Fairchild Brothers, Inc., Winfield

Kevin E. Raker Construction, LLC, Sunbury

Mahantango Game Farm, LLC, Dalmatia

Dennis Martz, Dalmatia

Northumberland County Anthracite Outdoor Adventure Area

Paul Q. Ross Construction, Inc., Sunbury

Philip Dunn, Mt. Joy

RHP Law Group, LLC, Selinsgrove

Sunbury Animal Hospital, Sunbury



## A LOOK BACK IN 2016...



**Northumberland County Conservation District** added 8 new photos.

Published by Jaci Harner [?] · January 6, 2016 ·

Spent the morning evaluating Quaker Run, Dark Run and Buck Run, all located within Shamokin Creek watershed. One of the many steps before organizing a new project.

Working together to provide a cleaner environment for future generations.

Make a difference.....join Shamokin Creek Restoration Alliance for a group meeting next Tuesday, January 12 at 6:30 at the Career Center in Shamokin.



**Northumberland County Conservation District** added 5 new photos.

Published by Jaci Harner [?] · September 1, 2016 ·

You can't learn about or appreciate the value of the Susquehanna River in a conference room! You do it out on the river!!

A big thank you to Jim Charles of Isle of Que and Jacob Bennet, Waterways Conservation Officer for PA Fish and Boat Commission, for their assistance with this activity.

Stay tuned for some fun facts about the this valuable yet vulnerable resource in our backyard.....



**Northumberland County Conservation District**

Published by Judy Becker [?] · April 19, 2016 ·

Pickup for our annual tree sale starts tomorrow! We will be at the Rockefeller Township Building, 538 Seven Points Road, Sunbury on April 20th and April 21st from 7am until 7pm. In addition to receiving pre-orders of 10,500 trees, we also have extras! Stop by and see us!



140 people reached

Boost Post



**Northumberland County Conservation District** added 11 new photos.

Published by Jaci Harner [?] · June 2, 2016 ·

We collected biological data on Warrior Run, before installing our stream project, scheduled for week of June 6. Will collect again one year and two years after project installation to determine water quality improvements. Not a bad day "in the office". 😊





Northumberland County  
Conservation District  
441 Plum Creek Road  
Sunbury, PA 17801  
Phone: (570) 495-4665  
Website: [www.nccdpa.org](http://www.nccdpa.org)

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### Northumberland County Conservation District

*The NCCD, formed in 1943 under the Conservation District Law, is a subdivision of state government and is one of 66 Conservation Districts throughout the state of Pennsylvania. The purpose of the Conservation District is to promote protection, maintenance, improvement, and wise use of the land, water, and other natural resources.*

## Directors

Mike Hubler: Chairman, Public  
Leon Wertz: Vice-Chairman, Farmer  
Richard Shoch: Commissioner  
Gary Truckenmiller: Farmer  
John Kopp: Farmer  
Dave Crowl: Public  
Rich Daniels: Farmer

Mike Erdley: Associate  
Dave Swank: Associate  
Blair Carbaugh: Associate  
Albert Mabus: Associate  
John Pfleegor: Associate  
Ted Carodiskey: Associate

## Staff

Judy Becker: District Manager, AgLand Preservation, Editor  
Shirley Snyder: Administrative Assistant  
Jaci Harner: Watershed Specialist, Nutrient Management Technician  
Michael McCleary: Erosion & Sediment Technician, Dirt & Gravel Roads  
Bryanna Kenno: Agricultural Conservation Technician

**NCCD Board of Directors Upcoming Meetings:**  
**May 4, June 1, July 6 at 7:00pm; all held at the NCCD EE Center**