



2818 Annual Report

Apont As...

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.

(continued on next page)

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

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 Lesher (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 Rich Benny Snyder, Township Dave

Richard Daniels, Vice-Chairman Dave Crowl, Contractor Director

Mary Crone, Secretary/Treasurer
Dave Becker, 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
- Chillisquague 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
 - -Panted 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 mudsill 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 mudsill 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 mudsill 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

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 Production Crop Services 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 Montrousville; 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 Selinsgrove; and Valley Ag and Turf Watsontown. 2 Category and 1 Core credits were offered to attendees.

<u>Twilight Meeting</u> — 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.



46th 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

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2016 AWARDS

Environmental Educator of the Year

Winner: Edward Thomas, Sunbury Christian Academy, 4th 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 4th 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' 4th grade class on this project.

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

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:

Ag Choice Farm Credit ACA, Lewisburg Aqua Pennsylvania, Inc., Shamokin Blair and Mary Carbaugh, Danville

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

AET Consulting, Lititz

Daniel Shingara Enterprises, Inc., Paxinos Doli Construction Corporation, Chalfont

Paul Q. Ross Construction, Inc., Sunbury

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 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 Resoration 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".

