



Conservation Matters



Summer days.

The dog days of summer. Did you ever wonder where that phrase came from? The “dog days of summer” refer to the weeks between July 3 and August 11 and are named after the Dog Star (Sirius) in the Canis Major constellation. Sirius is behind the sun as seen from Earth in the Northern Hemisphere summer. In late summer, it appears in the east before sunrise – near the sun in our sky. The early stargazers might have imagined that the double-whammy of Sirius and the sun caused the hot weather, or dog days.

Dog days or not, summer is a fun time for vacations, swimming, camping, and enjoying all the outdoors has to offer. We hope you’ll take advantage of the warmer weather.

We wish you have a safe and fun summer!

Sincerely,

Judy Becker

NCCD Board Votes on Reboot Inspections

At the June 2nd meeting of the Northumberland County Conservation District Board of Directors, the Board voted to turn away the Chesapeake Bay Technician contract due to the new requirement by DEP to perform compliance inspections. Due to this decision, the District will be losing approximately \$30,000 in funding from DEP.

As we stated in the last edition of this newsletter, DEP will be coming around this fall to perform compliance inspections on your farm. The focus will be non-CAOs and non-CAFOs. The reason for this is CAOs and CAFOs are already inspected annually. Farmers will be asked if they have a Manure Management Plan, an Agricultural Erosion and Sediment Plan (or updated Conservation Plan). They will also be looking for water quality issues.

In the coming months, the District will be posting on our website (www.nccdpa.org) a list a private plan writers you may contact for assistance with plans. Keep in mind, many plan writers do have a waiting list.

At the beginning of 2017, the District will revisit their decision regarding participating in inspections for the 2017-2018 fiscal year.

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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 for more information. We are also on Facebook at www.facebook.com/nccdpa.

NCCD Summer Intern

by Preston Ford, Bloomsburg University Senior

My name is Preston Ford. I am a student at Bloomsburg University, pursuing my Bachelor of Science in Environmental, Geographical, and Geological Sciences with a focus in Geography and Planning. I graduated from Shamokin Area High School in 2011 and went to Kutztown University for one semester before transferring to Bloomsburg. It took me quite a while to figure out what it was that I wanted to major in, but once I started taking courses in the Environmental, Geographical and Geological Sciences (EGGS) department it was clear to me that this is what I wanted to do. What I love about this field of work, as well as the EGGS department at Bloomsburg, is that, while I am passionate about pursuing my career in planning, I am not limited to it. You get an all-encompassing education on things like land resources management, water resources management, map making with GIS, and environmental science as a whole. My internship here at the conservation district offers me opportunities to experience all different kinds of projects. I get to see a lot of planning work, while also experiencing it from the perspective of the Erosion and Sediment Technician or our Watershed Specialist. I am eternally grateful for the opportunity to spend a summer here at the conservation district. I have already learned so much, and I cannot wait to see what the rest of the summer brings.



Preston Ford, NCCD Summer Intern

PASPGP-4 Expires June 30, 2016

by Michael McCleary, Erosion and Sedimentation Technician

As part of the permit application package for work in, along, across, over or under waters of the US and waters of the Commonwealth, the **PASPGP-4 Cumulative Impacts Project Screening Form** will be replaced by **PASPGP-5 Reporting Criteria Checklist** on July 1, 2016. All Chapter 105 permit applications submitted after June 30, 2016 must include a completed PASPGP-5 Reporting Criteria Checklist. The PASPGP-5 will be used by DEP and delegated conservation districts to determine if Chapter 105 permit applications will require review and approval by the US Army Corps of Engineers or can be authorized by DEP or a delegated district.

While some training has been given to DEP, USACOE, and conservation district staff regarding processing of a PASPGP-5 Reporting Criteria Checklist (which will now be filled out by the applicant) there are some issues which have not been completely clarified. If you have any questions regarding this new form, please call Michael McCleary at (570) 495-4665 ext. 302, and he will attempt to find the answers to your questions.

It is our understanding that if you have been issued a Chapter 105 permit, but have not completed the authorized work, you must do so by June 30, 2017.

A graphic advertisement for KW Enterprises LLC. The background is green with diagonal lines and a white wavy line. The text 'KW' is in large, stylized, brown letters with a white outline. Below it, 'ENTERPRISES LLC' is in smaller, bold, brown letters. Underneath that, 'Erosion Control' is written in a cursive, brown font. At the bottom, there is contact information: '3273 Shakespeare Rd Milton PA 17847' on the left, 'Certified Installer Of: filtrex LAND IMPROVEMENT SYSTEMS let nature do it.' in the center, and 'Keith Weaver (570) 523-9000 Fax - 570-523-9597 kweaver@afo.net' on the right.

ENVIROTHON

Approximately 230 high school students from Columbia, Montour, Northumberland, Snyder, and Union counties participated in the annual Susquehanna Valley High School Envirothon on Tuesday, April 26th at the Shikellamy State Park Overlook.

Students from grades 9-12 were tested at five separate stations in each of the following categories: aquatics, forestry, wildlife, soils and a current issue which was “Invasive Species: A Challenge to the Environment, Economy and Society”. A non-testing educational station was also provided by Van Wagner.

The top winner from Northumberland county was Warrior Run High School Team A. Individual county winners advanced onto the Pennsylvania State Envirothon competition held on May 24th and 25th at Susquehanna University and Camp Mount Luther.

Approximately 150 high school students from Columbia, Montour, Northumberland, Snyder, and Union counties participated in the 18th annual Susquehanna Valley Middle School Envirothon on Tuesday, May 10th at the Montour Preserve.



Warrior Run Team A: from left to right students Amber Lankford, Sammy Gates, Dalton Hornberger, team advisor Kip Hoffman, Lloyd Minium, and Gabe Hall.



Mt. Carmel Area Team C: from left to right team advisor Jennifer Biddinger, students Ryan Green, Tyler Barnhart, Erin Bossler, Tyler Weaver, and team advisor Jesse Wagner.

In addition to taking tests at four separate stations, a discovery station provided a non-testing opportunity for attendees to sit back and learn and was led by Jim Kauffman of Pheasants Forever.

A variety of representatives from the PA Bureau of Forestry, USDA Natural Resources Conservation Service, PA Game Commission and county Conservation Districts provided the tests and assistance at each station.

Northumberland County team, Mt. Carmel Area Team C took 3rd place.

Agricultural Land Preservation Program

Note: *The Board will be holding open enrollment for new applications during the fall of 2016. Dates have not been specifically set. Please check our website regularly (www.nccdpa.org). Open enrollment will also be advertised in The Daily Item. You can also contact Judy Becker at 570-495-4665 x 305 for more information.*

For Northumberland County, the competition is sponsored by Northumberland National Bank; Service Electric Cablevision; Meckley’s Limestone Products, Inc.; The Daily Item; Waste Management of Coal Township; Oakes Coffee and Bottled Water; Shamokin Creek Restoration Alliance; BB&T Bank; and the local conservation districts of Columbia, Montour, Northumberland, Snyder, and Union counties. We also thank the Pennsylvania State Envirothon Board for providing a grant to assist with the costs of the event.

The Envirothon program is designed to heighten environmental awareness in each student, test their knowledge and understanding of natural resource issues, and produce environmentally responsible adults. Pennsylvania is the birthplace of the Envirothon.

Partnerships at Work at Brown Avenue Park

by Jaci Harner, Watershed Specialist

The conservation district has been involved in a variety of projects over the past 10 years; stream restoration, farm improvement projects, dirt and gravel road improvements, educational workshops, tree plantings, farmland preservation, just to name a few. All projects seem to have challenges and frustrating moments at some point in time. However, having supportive, cooperative partners makes the whole process go much smoother.

I've had the pleasure of working with Milton Borough over several years installing stream related projects along Limestone Run at Brown Avenue Park. This group of folks has always been open minded and supportive of new ideas and project activities. As they have made plans to improve a community recreational area, they have also embraced environmental stewardship as part of their overall plan.

We first approached Milton Borough back in 2009. We had leftover funding from a stream restoration project located upstream on Limestone Run. It was important to put the money to good use, so we asked if there was interest to install a few fish habitat structures along the stream that runs through Brown Avenue Park. The borough responded with an ambitious "yes". An evaluation of the stream revealed that Limestone Run in this area was slow moving with little shade or habitat for aquatic life. We installed a log cross vane and several overhead cover deflectors. The log cross vane helps direct water flow to the center of the channel, adds dissolved oxygen to the water, and provides some plunge pool habitat for fish. The overhead cover deflectors provide a dark, cool, shady area for fish to hide under. Chuck Beck, borough manager, encouraged the project and described the local support for youth trout fishing every spring.



Next, I attended a TreeVitalize workshop hosted by The Alliance for the Chesapeake Bay. Trees along streams help shade the water offering cooler temperatures for fish. Also, leaves provide a food source for aquatic life, while tree roots help hold soil in place and reduce erosion. The Alliance was offering a grant program to plant native trees along PA streams on public accessible lands. Brown Avenue Park seemed like a perfect fit and Chuck agreed. We immediately set to work organizing our next project.



After many emails, phone calls, and a few meetings we successfully planted 162 native trees on May 7, 2011, with help from a local Boy Scout troop. The borough never hesitated to provide support for the project. They drilled all the tree holes the day before the scheduled planting and they installed all the tree tubes after the planting was completed. In addition, they have continued to manage the site as we have advised. We explained the stream water benefits gained by not mowing along the top of the stream bank, but rather allow a "buffer" of grass growth along with the planted trees. This extra root and plant material, from both the grasses and trees, helps filter rain water before it enters the stream, providing a cleaner source of water. They do keep a few mowed paths for stream access for those who want

Partnerships at Work, *continued*

to fish. Not everyone heeds our “no-mow” advice, but Chuck has respected our suggestion and is setting a great example for proper stream bank management.

While we were planning our tree planting activity, Chuck pointed out an eroding stream bank with a tree on it. It was important to both of us to stabilize the bank and save the tree. I contacted another group of partners (PA DEP, PA Fish and Boat Commission, Northcentral PA Conservancy) and asked if this site could be added to our list of grant projects. Considering the many projects that have been done upstream on Limestone Run and at Brown Avenue Park, the group agreed stabilizing this site would be a wise choice.



“We explained the stream water benefits gained by not mowing along the top of the stream bank, but rather allow a “buffer” of grass growth along with the planted trees.”

A modified mudsill crib was installed in September of 2012. The mudsill stabilizes the bank, reduces erosion into the stream, and provides overhead cover for fish. The tree still stands to this day. Once again, the borough actively participated by paying for all of the rock and stone expenses associated with the project.



I visited Brown Avenue Park a few months ago. The baseball fields look great, the pool has a new slide, new playground equipment has been added, fish were stocked in the stream, and they planted a wildflower mix to complement the tree plantings along the stream. It is so encouraging to see a town invest so much time and effort into their community to provide a safe, useful place for people to spend time outdoors. I’m truly thankful that Northumberland County Conservation District, and I personally, could play an active role in helping Milton Borough with such a worthwhile project. Take a drive and check it out. I think you’ll be impressed with Brown Avenue Park. Enjoy!!

Learn About:

- the advantages of grass pellets
- the best materials to use for grass pellets
- harvesting methods for grass pellet raw material
- making grass pellets
- the equipment required
- funding equipment purchase
- how RC&D can help
- advantages of on farm production
- equipment sources
- how to test for pellet density
- how to test for pellet moisture
- how to select the proper stove
- what holds the pellets together
- safety equipment recommended
- type of pellet mills
- handy hand tools
- the effects of material size
- the effects of material moisture



On Farm Pellet Production Workshop
This program is made possible by a grant from the Renewable Energy Development / USDA



**Workshops are
Rain or Shine
10 am or 1 pm session**



Register at www.pnercd.org



On Farm

Pellet Production Workshop



Learn first hand
about the
advantages and
challenges of fuel
pellets made from
GRASS.

Made Possible by a grant from:
Renewable Energy Development Assistance

Workshop Schedule

- Columbia Conservation District** 7/16/2016
702 Sawmill Road, Bloomsburg, PA 17815
 - Nescopek State Park** 7/23/2016
1137 Honey Hole Rd, Drums, PA 18222
 - Schuylkill Conservation District** 8/10/2016
1206 Ag Center Drive, Pottsville, PA 17901
 - Hillside Farm** 8/13/2016
65 Hillside Rd, Shavertown, PA 18708
 - Lackawanna Conservation District** 8/17/2016
1038 Montdale Rd, Scott Twp., PA 18447
 - Monroe Conservation District** 8/24/2016
8050 Running Valley Rd, Stroudsburg, PA 18360
 - Northumberland Conserv. District** 8/27/2016
441 Plum Creek Road, Sunbury, PA 17801
 - Wayne County Conservation District** 9/10/2016
648 Park Street, Honesdale, PA 18431
 - Carbon County Envir. Ed. Center** 9/17/2016
151 E White Bear Dr, Summit Hill, PA 18250
- One More Location TBA**
(Watch website for date and place – pnercd.org)
- 2 hour session 10 am or 1 pm**



Grass Facts

- Grass pellets have been used in Europe for decades
- On farm pellet production eliminated the need for expensive raw material transportation
- The average home will use 4 to 6 tons of pellets
- Residential heating appliances need modification to address potential corrosion issues
- It takes 20 years to grow a tree and about 70 days to grow a field of grass
- Wood pellets have 1% ash grass pellets have 4+% ash
- Wood pellets have about 8500 btu / lb
- Grass pellets have about 8000 btu / lb
- Grass pellets burn best in a multi-fuel stove
- Proper harvesting eliminates the need for special drying to produce pellets
- Weeds make fine biomass pellets
- Grass pellets are CO2 neutral
- Grass lacks a political lobby thus it is not supported by State or Federal Government
- Grass pellet conversion efficiency for energy out: energy in is estimated at 14:1
- Ash content can be reduced by allowing the raw material to leach in the field for a week or two
- Both Potassium and chlorine in grass are water soluble and can be washed away by leaching
- Grass pellet production is more of an art than a science

www.pnercd.org

Registration Form

Name _____ Phone _____

Session location _____ 10am _____ 1pm _____ Number Attending _____

Your Address _____ City _____ St _____ Zip _____

E-Mail Address _____

Register online at pnercd.org or call 570-379-2971
or Send Registration Form to Suzanne Berkowitz P.O. Box 432, Dalton, PA 18414

Status of the Northern Section of the Central Susquehanna Valley Throughway

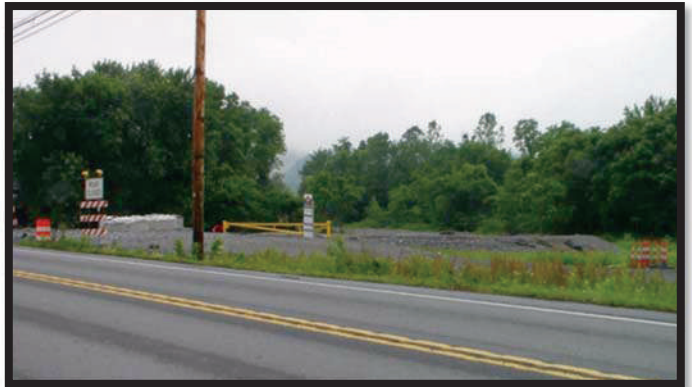
by Michael McCleary, Erosion and Sedimentation Technician

Phase I of the CSVT covers the proposed bridge over the Susquehanna River and the approaches to the bridge. The southern approach is in Union County from SR 15 to the river in the area of County Line Road, Mulls Hollow Road and Seven Kitchens Road. The northern approach is in Northumberland County from Ridge Road over SR 0147 and across the river to Union County. Phase I is currently under contract to Trumbull Corporation of Pittsburgh, and quite a lot of work has been done on this portion of the project.

In Northumberland County, construction of an access road off the south side of Ridge Road has begun. This was started to provide material to create an access road off SR 0147 which crosses the railroad and terminates near the alignment of the proposed river bridge.

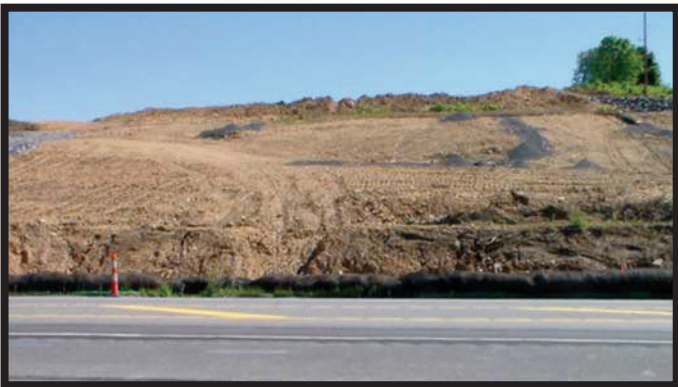


Access Road From Ridge Road



Access Road From SR 0147 To Bridge

Earthwork for the bridge abutment has begun on the northeast side of SR 0147, and some of the earthwork related to the northern approach has begun.



Earthwork for North Bridge Abutment



Earthwork for Northern Approach

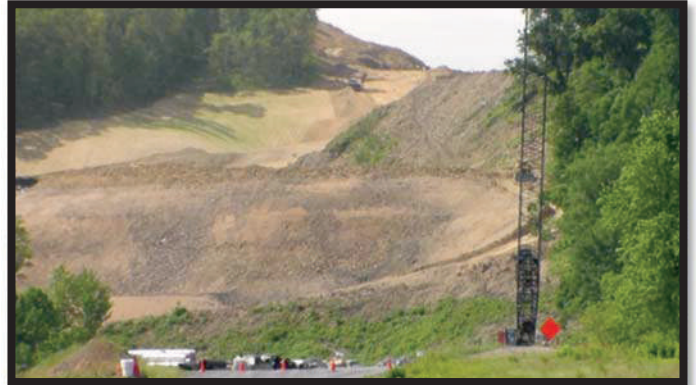
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Status of CSVT, *continued*

In Union County, construction of the southern approach to the proposed river bridge is underway. A considerable amount of earth has been removed and relocated to construct the embankment which will hold the abutment for the southern end of the bridge.



Earthwork for Southern Approach

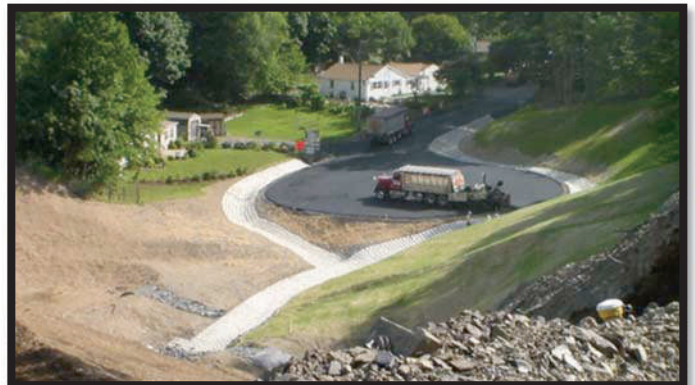


Earthwork for South Bridge Abutment

A stormwater collection and conveyance system has begun to take shape along the southern approach to the bridge. This system includes stormwater detention basins, diversion swales, bi-pass pipes and a relocation of a small stream.



Stormwater Basin and Diversion Swale



Cul-de-Sac on Mull's Hollow Road with Swales



Drainage Swale with Concrete Revetment

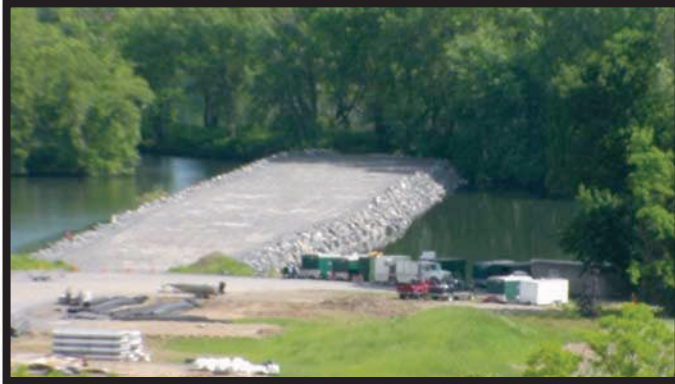


Section of Concrete Revetment

(continued on next page)

Status of CSVT, *continued*

A coffer dam has also been installed in the western half of the river to allow access for construction of bridge piers.



Cofferdam from West Shoreline to Island in Middle of River

Picture on left taken from approximate location of top of bridge abutment.

Picture on right is northern edge of cofferdam looking toward embankment for southern abutment.

The Northumberland, Snyder and Union County Conservation Districts have completed their technical review of Phases 2 and 3, and DEP is working on their review. Phase 2 covers the remaining earthwork in Northumberland County from Ridge Road north to the four lane section of SR 0147. Phase 3 covers the remaining earthwork in Union and Snyder Counties from SR 15 south to a point in Snyder County, which is approximately one half mile south of County Line Road where it will tie into the Southern Section of the Central Susquehanna Valley Thruway. Phases 2 and 3 are expected to go out for bids sometime this summer or early fall.

Got Trees

Buyers of Standing Timber

10 acres or more
Call for free appraisal
717-694-3340

Hoffman Brothers Lumber Inc

118 Sand Valley Rd-Richfield, PA
Firewood
Pick-up, Tri-axle or palletized loads

Tree Sale

Our 46th annual tree sale was a great success! We sold almost 11,000 trees to 181 customers. Tree sale week is always a fun time for us. We look forward to seeing familiar faces and getting to know new ones. We thank Rockefeller Township for continuing to allow us to use their building for the week, and we thank YOU for continuing to support the planting of trees in Northumberland County. We'll see you next year!



Growing Your Future Crops

by Janette Leshner, District Conservationist

The practice of seeding fields between harvest of crops not only keeps topsoil in place, but also adds carbon to the soil and helps the beneficial microbes, fungus, bacteria and worms in it thrive. Cover cropping is not a new concept, and many of the farmers in the county have been doing it for many years. I commend them and look forward to taking our cover cropping system to a new level to include things such as diverse mixes designed for your specific field, more total acres of cover crops planted, and cover crops planted after all crops in a rotation.

The Natural Resources Conservation Service (NRCS) has made soil health a top priority and in doing so offers benefits to producers across the country. Achieving soil health is part of a systems approach to agriculture production that benefits the landscape, reduces nutrient loading and sediment runoff, increases efficiencies and sustains wildlife habitat while providing the potential for cost savings to producers.

Cover cropping is a key tool that you can use to unlock the potential for enhancing the soil health on your farm. While some cover crop benefits may stand out in particular management situations or growing seasons, most are realized over time as their ongoing use improves soil quality and function. Cover crops are best viewed as a long-term investment in soil



productivity. The specific benefits of a cover crop also depend on the species and growing environment.

The harvest of small grains is moving along quite well in most parts of our county, and perhaps by the time you read this article the harvest will have been completed. What are your plans for those fields, and what are your plans for the grain harvested from those fields? I encourage you to take a look at your current rotation and see if there is an opportunity to plant a diverse cover crop mix in those grain stubble fields. Can that grain be used as part of your cover crop program this fall after corn or soybean harvest?

It is sometimes easy to get caught into the traditional trap of growing the same crops year after year. However, I encourage you to take a step back and see what possibilities and opportunities you can explore to help grow your future crops.

It is my hope that in anticipation of fall and winter you consider your cover crop program and how it can be enhanced. Now is the time to talk to your NRCS office or to collaborate with other farmers in your area.

If you have questions or would like some assistance in developing a cover crop plan for your farm, please do not hesitate to contact me at 570-286-7114 ext. 3.

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. 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.

**Northumberland County
Conservation District**
441 Plum Creek Road
Sunbury, PA 17801
Phone: (570) 495-4665
Website: 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

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

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

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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
Vacant: Agricultural Conservation Technician
Preston Ford: Summer Intern

NCCD Board of Directors Upcoming Meetings:
**August 4th (at the Little Shamokin Creek Pavilion), September 1st, and
October 6th at 7:00pm in the NCCD EE Center**