



# Conservation Matters

## Happy New Year!

A new year is an exciting time. It is a time of resolutions and fresh starts. At NCCD, we start the new year with our ongoing resolution: to provide the residents of Northumberland County with the best technical assistance and education we have to offer when it comes to water quality. We look forward to helping you in 2016.

Best of luck to you with your new year's resolutions!

Sincerely,

*Judy Becker*



### **NCCD has a number of opportunities for you to get involved!**

1. Become an affiliate member of the Conservation District. Visit [www.nccdpa.org](http://www.nccdpa.org) to find out how and the benefits you will receive as a member!
2. Become a director or associate director of the NCCD Board of Directors. Our board is made up of a variety of individuals from Northumberland County who have one common goal: their love of conservation.
3. Volunteer! We have a variety of activities throughout the year, and we're always looking for assistance with our programs.
4. If you know of a college student interested in conservation, have them contact our office about a potential summer internship.



Contact our office today at 570-495-4665 or [jbecker@nccdpa.org](mailto:jbecker@nccdpa.org) and find out how you can get more involved with NCCD. We look forward to hearing from you!

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

## Bird Flu Prevention

by Nathan Brophy, Agricultural Conservation Technician

Pennsylvania has not been infected by Highly Pathogenic Avian Influenza (HPAI) since 1983-84. With that being said, Pennsylvania is taking as many possible precautionary measures to reduce the chance of HPAI spreading through our poultry industry. HPAI H5N2 that hit the Midwest states in spring of 2015 killed roughly 48 million birds, mostly egg layers and turkeys. "The economic damage from HPAI is expected to top 1 billion dollars." According to the U.S. Bureau of Labor Statistics, HPAI is carried by wild birds that may not be affected themselves by the disease. When waterfowl migrate and join in large flocks, the chance for disease to spread is greatly increased. When the birds make their way down the migratory flyways, they can spread the disease by mingling with local wild or domesticated birds. The disease can also be spread through feces of a bird carrying HPAI. There are symptoms that HPAI causes that you can look for if you suspect your flock has been infected. "HPAI H5 viruses infect the respiratory and gastrointestinal tracts of birds, can spread rapidly, and cause high mortality in infected poultry. Many birds have died, and millions of chickens and turkeys in several states have been culled to try to control the outbreaks. Signs of HPAI in poultry can include sudden death; lack of energy, appetite, and coordination; purple discoloration or swelling of various body parts; diarrhea; nasal discharge; coughing; sneezing; and reduced egg production, or soft-shelled or misshapen eggs; according to the Center for Disease Control and Prevention.



### Recommended Biosecurity Measures Include:

- Restrict access from wildlife and wild birds to your birds by use of enclosed shelter and fencing of the outdoor areas. Use of smaller mesh hardware cloth which allows exclusion of wild birds while still allowing outdoor exposure.
- Keep feeders and waterers clean and out of reach of wild birds. Clean up feed spills.
- Use dedicated or clean clothing and foot wear when working with poultry.
- Avoid fan exhaust with vehicles and personnel. Also, if possible, reduce the amount of visitors to the operation and meet at off site locations when possible.
- Introduction of new birds or returning birds to the flock after exhibition; keep them separated for at least 30 days.

*(continued on next page)*

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.

## Bird Flu Prevention, *continued*

-Do not return dirty crates or other equipment back to the property without cleaning and disinfecting. This includes the tires on the vehicles and trailers.

-Don't share equipment or reuse materials like egg cartons from neighbors and bird owners. You could be borrowing disease.

For more information you can check PDA's website listed here: [http://www.agriculture.pa.gov/Protect/AHDServices/avian\\_influenza/Pages/default.aspx#.VmBF7r9BIb0](http://www.agriculture.pa.gov/Protect/AHDServices/avian_influenza/Pages/default.aspx#.VmBF7r9BIb0).

If you feel for ANY reason that your flock may be infected with HPAI, please contact The Bureau of Animal Health & Diagnostic Services immediately: (717) 772-2852; [RA-ahds@state.pa.us](mailto:RA-ahds@state.pa.us).



### PLEASE JOIN US ON **JANUARY 21, 2016**

This event is **FREE**.

- Current legal issues in agriculture
- Advancements in precision farming
- Long Term Care planning for farm families
- FREE Pesticide Credits (1 hour)

**Registration and FREE breakfast buffet  
begin at 7:00 am**

**Presentation: 8:00 am – 11:00 am**

**COUNTRY CUPBOARD**

101 HAFFER ROAD, LEWISBURG

**Reservations are required.**

**RSVP TO 570-743-2333  
BY JANUARY 11, 2016**

### SPEAKERS

#### **ROSS PIFER**

DIRECTOR OF AG LAW, PSU DICKINSON LAW

Attorney Pifer is a Clinical Law Professor at Penn State Law where he teaches agricultural law and serves as Director of the Center for Agricultural & Shale Law. Ross has presented widely throughout Pennsylvania, nationally and internationally on shale gas and agricultural law topics.

#### **LUCAS CRISWELL, CRISWELL ACRES**

Lucas farms 1,800 acres, operates a custom lime and fertilizer spreading business, is an Agleader dealer and serves on the Board of Directors of the Union County Conservation District. He has collected yield data for 10 years by using a yield monitor in his combine. This collection of data has helped make better financial decisions on lime and fertilizer needs in addition to making better choices on hybrid selections that best fit his farming management. He has also adopted the Optx nitrogen application system for sidedressing corn which adjusts applied nitrogen in real time infrared technology.



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# Cerulean Warbler Forest Enhancement Program

by Kevin Yoder, Forester (American Bird Conservancy)

## ABOUT CERULEAN WARBLERS



Named for the male's brilliant blue coloration, the Cerulean Warbler may be one of the most elusive birds to see in the Appalachians. They nest high up in canopies of large trees, often keeping them out of sight. In the Appalachian portion of their breeding range, Cerulean Warblers seek out mature oak and northern hardwood forests with tall deciduous trees with open canopies and gaps that allow sunlight to reach the forest floor.

About 80% of the entire Cerulean Warbler population breeds within the Appalachian Mountains, making it one of the species of highest concern in the region. Loss of forest habitat and declines in mature forest health in the region has led to the population declining sharply during the

latter part of the 20th century. Over the last 50 years, about 70% of the Cerulean Warbler population, or about 1 million birds, have been lost.

## IMPROVING FOREST HEALTH FOR WILDLIFE

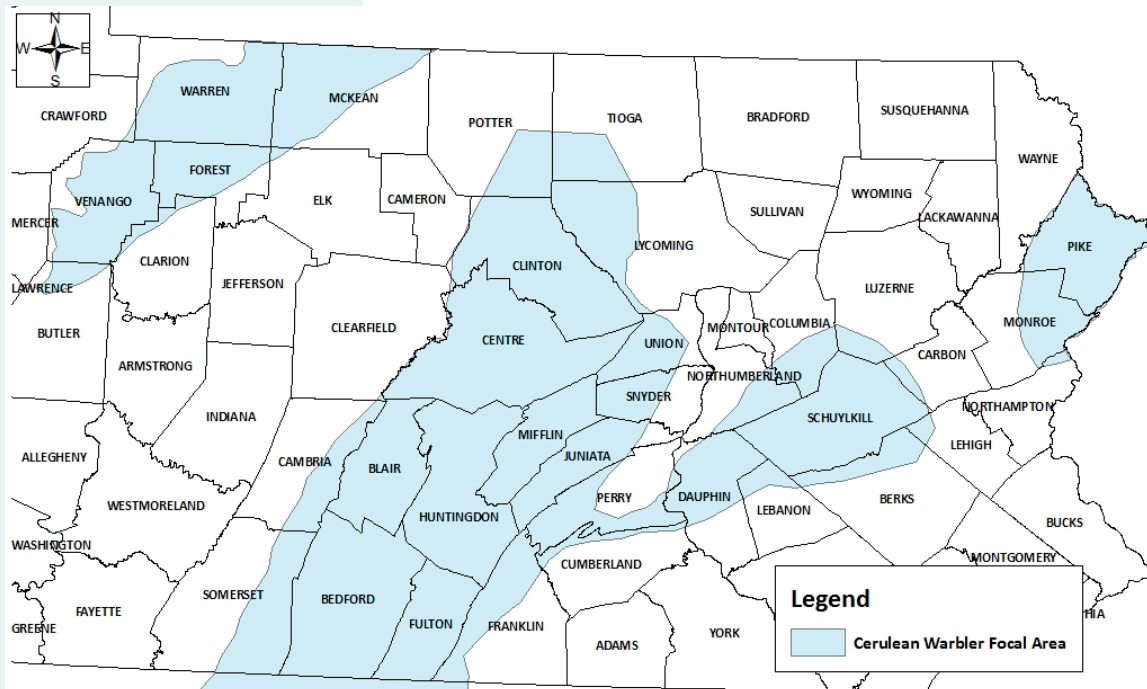
Though significant areas of Pennsylvania remain forested, forests today are very different from those that existed prior to the 19th century. Present-day forests are often very uniform with densely packed trees and closed canopies that lack the variety of overstory and understory habitat structure required by many songbirds, including the Cerulean Warbler. Increased development across the landscape, as well as disrupted or absent natural disturbances like forest fires, has dramatically impacted mature forest health and reduced the quality of these habitats for a variety of birds and wildlife.

Active forest management, including controlling competing and invasive plants, thinning, and forest stand improvement can promote the mix of cover and tree species needed for wildlife to thrive. Removing undesirable plants improves forest health by providing more sunlight, water, and nutrients to higher value and unique species. Management practices that enhance cerulean warbler habitat also improves forest regeneration, tree growth rates, and acorn production in oaks. The increased food and cover means better habitat for deer, turkey, and many non-game species.

## About the Cerulean Warbler Forest Enhancement program

The Cerulean Warbler Appalachian Forestland Enhancement project will work with private landowners to enhance forest habitat on private lands for Cerulean Warblers and other wildlife. Technical and financial assistance for landowners to improve forest habitat for Cerulean Warblers and other wildlife is available for properties meeting the following criteria:

- Within the Focal Area (see map below). Only the southeast corner of Northumberland County, between Little Mountain and Line Mountain, is included in the focal area.
- Within Forested Landscapes
  - At least 80% Forest within 1.5 miles, or within >1,800 acres of contiguous forest
- Willing to actively manage portions of their forest for cerulean warbler habitat



MAP OF CERULEAN WARBLER FOCAL AREA

Projects to improve cerulean warbler habitat often include thinning the forest by removing low-quality trees and using herbicides to control undesirable or invasive plants on the forest floor. Financial assistance may be available through the Natural Resources Conservation Service to help cover the costs of these practices. More information on the Natural Resources Conservation Service is available online at <http://www.nrcs.usda.gov/getstarted>.

## How You Can Get Involved

If you own property that meets the criteria above and are interested in learning more about the Cerulean Warbler Forest Enhancement Program, contact Amanda Duren, PA Cerulean Warbler Appalachian Forest Enhancement Partnership Coordinator, at (570) 387-7714 ext. 131 or [Amanda.Duren@pa.usda.gov](mailto:Amanda.Duren@pa.usda.gov).

## About the Author

Kevin Yoder, a forester employed by American Bird Conservancy, is working with NRCS on the cerulean warbler RCPP. Through this position, Kevin will be working with landowners interested in improving forest health and creating cerulean warbler habitat. Kevin specializes in wildlife habitat management, with an emphasis on forest management for wildlife. He has a passion for working with private forest landowners to enhance forest health and wildlife habitat. Kevin has recently been involved with NRCS forestry programs in other roles as well, including writing wildlife management plans for golden-winged warbler projects, writing CAP 106 plans on over 9,000 acres, and implementing on-the-ground habitat improvements through EQIP-Forestry. He looks forward to working with landowners and NRCS staff to continue improving Pennsylvania's forests. Kevin can be contacted at [Kevin.Yoder@pa.usda.gov](mailto:Kevin.Yoder@pa.usda.gov) or 717-330-7609.



# Save the Date & Join Us as We Connect Soil Health & Profits

\*Featuring **Dave Brandt**, Ohio Producer, **Jim Hoorman**, Ohio State University Extension, and **Jay Fuhrer**, ND NRCS, Local Producers, & Extension Specialists\* \*Pesticide Credits May be Offered \*Vendor Opportunities for each conference location

**Dave Brandt** farms over 1100 acres in central Ohio. He has been no-tilling since 1971 and using cover crops since 1978. Dave grows corn, soybeans, wheat, and some veggies. He has found that cover crops have become the anchor of his successful no-till system. Dave has come to realize the power of soil health improvements that can be achieved when you couple cover-crops with no-till. He focuses on using cover crops to increase organic matter, while improving soils, which has led to reduced soil compaction, reduced fertilizer costs, and increased infiltration rates. Dave has worked closely with NRCS and OSU on soil health over the past several years. Dave is a dynamic speaker and has a wealth of field experience and knowledge to share with you about how to begin your journey to improved soil health.

March 15, 2016

March 16, 2016

March 17, 2016

Toftrees Conference Center  
One Country Club Lane  
State College, PA 16803

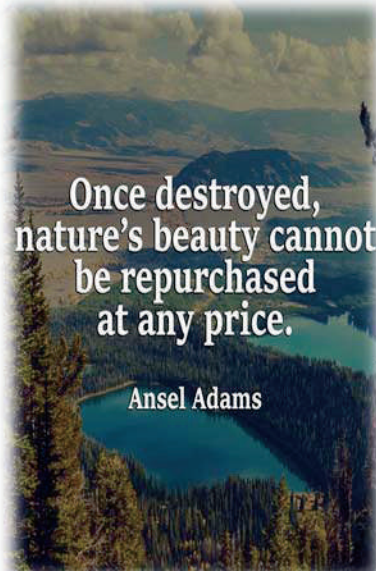
Wysox Firehall  
Lake Road  
Wysox, PA 16848

Pine Barn Inn  
1 Pine Barn Place  
Danville, PA 17821

For registration details please  
contact Lisa at the Clinton CD at  
[lbazure@clintoncountypa.com](mailto:lbazure@clintoncountypa.com)  
or 570-726-3798 x3803

For registration details please  
contact Emily at the Bradford CD  
at [emily.dekar@pa.nacdnet.net](mailto:emily.dekar@pa.nacdnet.net)  
or 570-265-5539 x117

For registration details please  
contact Tracey at the Columbia  
CD at  
[tracey.omen@columbiacd.org](mailto:tracey.omen@columbiacd.org) or  
570-784-1310 x102





## Every Action Helps

*by Jaci Harner, Watershed Specialist*

The Susquehanna River is an age-old resource flowing through and along Northumberland County. Sit on or along the river and you might experience a tranquil sunset, the grace of an eagle, the excitement of a big catch or the smile from a passing kayaker.

The river has played many important roles over the years. It has been a great resource for food and water. It also played an important role as a transportation system; early settlers would bound logs together to create a raft to transport locally grown foods and resources to the thriving towns, Columbia and Harve de Grace, located downstream. This quote, taken from *Susquehanna, River of Dreams* by Susan Q. Stranahan, describes a river scene:

“A vast and unprecedented amount of property has passed down the Susquehanna the present seasons,” noted the *Harrisburg Chronicle* on April 6, 1826.

“For three weeks past, the river has been literally covered with boats, arks, and rafts laden with coal, lumber of every description, plaster, whiskey, potatoes, cheese, wheat, flour, pig metal, etc.”

The food, goods and logs were sold for profit and the brave rafts men would walk the 100 or more miles to return home.

But the river and its connecting tributaries were also used as a disposal system. No one can argue that, too, was a necessity during those early times. It was quite easy to dispose of sewer, trash and industrial waste into the flowing waters where it was carried out of sight or along the streambanks where flood waters rose to pick up and remove unwanted items. There was also little concern for sediment and mud flowing into our waterways. As towns and farms were established throughout central PA, there was a need to clear the land and establish easier lifestyles. At the time, our soil and water resources seemed unlimited; would there ever be a day when daily tasks would cause concern for the waters flowing from this vast wild area known as Penn’s Woods?

The year 2015 offers a much different landscape on Penn’s Woods. Fortunately, as society has forged forward, there are still many scenic landscapes as you drive through Northumberland County. Over time, we have learned that our land use activities influence the health of our local stream waters. We’ve also learned that our local streams and river are not very healthy. Nonetheless, it is reassuring to know that many people are managing our landscapes to help improve the quality of our local streams.



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## Every Action Helps, *continued*



The countryside offers rolling hills with carefully managed farm fields. Many farms in the county plant cover crops in the fall so fields are not bare over the winter months and use no-till equipment for limited soil disturbance during the spring planting season. More and more farms are installing streambank fencing to keep livestock out of local streams. And most of our farmers are using a manure management or nutrient management plan to apply the proper amount of manure to crops. All of these management techniques, known as Best Management

Practices or BMP's, help to reduce the amounts of sediment, nitrogen and phosphorus entering our local waterways.

Our local towns are making conscious choices to create sustainable communities. They are promoting recycling, planting trees and adding natural landscapes to local streets. There are local, volunteer groups organizing stream and river cleanups. Another volunteer group hosted a series of stormwater education workshops and gave out rain barrels to all attendees. The rain barrels collect rain water from building rooftops and gutters and store it for later use. Using a rain barrel prevents the rain water from being discharged into storm drains and thus adding large amounts of rain runoff water to our local streams.



Fortunately, Northumberland County has 2 active volunteer watershed groups that organize projects to improve stream water quality. The Little Shamokin Creek Watershed Association has installed numerous fish habitat structures along Little Shamokin Creek. These structures stabilize stream banks and reduce erosion, decreasing the amount of sediment entering the stream. The less sediment in the stream channel, the healthier the water for trout. The structures also improve the types of fish habitat throughout the stream. In comparison, the Shamokin Creek Restoration Alliance organizes projects to clean up the orange Shamokin Creek waters that are created from Acid Mine Drainage. They have installed several water treatment systems, organized numerous trash

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## Every Action Helps, *continued*

clean ups, and planted native trees along Miller's Run. The treatment systems reduce the amount of iron and aluminum in Shamokin creek, while the roots from the native tree planting help reduce stream bank erosion and absorb rain water runoff before it enters the stream.

Regardless of location and occupation, everyone living in Northumberland County can help protect our local streams from pollution. As we approach the new year, consider what actions you can take to make a difference. Every action, whether you plant a 10 acre cover crop, install 2 rain barrels on your home or plant 5 (or 50!!) trees along a stream, helps improve our stream water quality. I am proud to take part in many of the activities listed above. Some projects are easier than others. Some are downright challenging. But at the end of the day, the end of the month, the end of the year, I know we made a difference, and our streams and river are better for it.

*The question is whether or not you choose to disturb the world around you, or if you choose to let it go on as if you had never arrived.*

*- Ann Patchett, writer*

## Attention Farmers, Municipalities and Contractors!

03.01.16

SAVE THE DATE!

*5<sup>th</sup> Annual Winter Forum*

REVIVAL TABERNACLE  
*Watson town, PA*

MORE INFORMATION TO FOLLOW



2015 Winter Forum

Y A W R O N I E T S N E  
H **W O R D** N O D E C A M  
D S F I N **S E A R C H** E  
P O E D N A L E C I C T

## WORD SEARCH

How many words and terms related to erosion and Sediment Pollution Control can you find?

Accelerated Erosion	Permiability
Anit Seep Collar	Pollution
Baffles	Quality
Basin	Reno Mattress
Best Management Practices	Rill Erosion
BioEngineering	Riparian
Broad Based Dip	Rip Rap Apron
Buffer	Rock Filter Outlet
Causeway	Sediment
Cellular Confinement Systems	Sediment Trap
Climate	Sequence of Construction
Coffer Dam	Shale
Coir Log	Sheet Erosion
Compost Berm	Silt
Dewatering	Silt Fence
Drainage	Sink Hole
Due Diligence	Slope
Earthwork	Soil Characteristics
Emergency Spillway	Soil Compaction
Erosion	Soil Type
Excavation	Stabilized
Exceptional Value Watershed	Storm Water Runoff
Filter Bag	Surface Waters
Flocculents	Thermal Impacts
Forebay	Topography
Gabion	Trench Plug
Grading	Vegetated Channel
High Quality Water	Vegetative Cover
Hydrology	Waterbar
Inlet Filter Bag	Watersheds
Level Spreader	Wetlands
Maintenance Program	
National Pollutant Dishcharge Elimination System	
Organic Content	
Pavers	



# Erosion and Sedimentation Word Search

N O I S O R E L L I R A I N N O I S O R E T E E H S  
 A O H N C I N A E C O R G N I D A R G X M R A E Y U  
 T R I A N G O F L O C C U L A N T S N P E E S W D R F  
 I G G T O O I C A L K N U R U C A E I A R N C N R F A  
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For the answer, check out the "Publications" page of our website:  
[www.nccdpa.org/publications](http://www.nccdpa.org/publications)



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

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 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  
Nathan Brophy: Agricultural Conservation Technician

**NCCD Board of Directors Upcoming Meetings:**  
**February 4th, March 3rd, and April 7th at 12:30pm**  
**in the NCCD EE Center**