



Visit us on the web at
conewagoinitiative.net

The Conewago Creek Initiative is a locally-led, collaborative partnership effort in the Conewago Creek watershed in Dauphin, Lancaster, and Lebanon Counties. We seek to work with local residents and stakeholders to increase awareness and adoption of land management practices that will improve water quality of local streams and ensure healthy farms and communities, implementing the vision of the Conewago Creek Watershed Community: *a restored Conewago as a centerpiece of pride and a treasured asset in a rural landscape.*

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Conewago Currents

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The Coordinator's Report

Summer flew by and cooler temperatures are quickly becoming the norm once again. With cooler temperatures comes the opportunity to plant trees and native perennials that help capture rainwater and clean our local Conewago Creek. Have you thought about sprucing up your landscaping this fall?

While there are no large volunteer planting events scheduled for this fall in the Conewago watershed, there are several nearby that I hope you will think about joining us for. Check out page two for more details on these chances to get your hands dirty in the coming weeks.

Fall is also the time to start cleaning up gardens, and preparing fields for fall. The Practices Spotlight section describes how cover crops can benefit small gardens as well as large fields.

An opportunity to learn

more about the connection between soil and streams is being provided by USDA NRCS and other partners on October 29. A free Shady Maple lunch accompanies this great speaker session— learn more on Page 3.



This fall season is also a perfect time to join the Tri-County Conewago Creek Association. As the local watershed group, this organization is in the process of starting some great new projects. At the top of the list is a new partnership with a soon to be opening brewery in Elizabethtown. Read below to discover how brewing and clean water go hand-in-hand.

I hope you enjoy reading this fall edition of Conewago Currents and appreciate the beauty of the changing foliage.

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TCCCA's New Partnership



The Tri-County Conewago Creek Association, a partner in the Conewago Initiative, has an exciting new way to fundraise this fall. TCCCA has

officially been announced as the first non-profit that will be supported by Moo-Duck Brewery's charity brew donations.

Moo-Duck Brewery will be opening in Elizabethtown this fall at 79 S Wilson Ave and as part of their mission will be donating a portion of the sales from selected beers to featured local charities. TCCCA, as the first charity, will be receiving a portion of the sales of Hoppy Toad IPA, one of the breweries flagship beers, for several months following opening day. The date of

opening is still being determined. Visit their website to learn more about their charity brew series and when they plan to open

<http://www.mooduckbrewery.com/>
 TCCCA is very excited about this new partnership opportunity and hopes that this partnership will introduce brewery visitors to the watershed group and educate them about the need for watershed protection. Water is an important part of the brewing process, so this partnership is a natural fit.

Water is the primary ingredient in beer and helps

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TCCCA's New Partnership

make each beer unique. Water absorbs minerals, such as calcium and magnesium, from the local bedrock that it flows through, giving it unique qualities necessary

for producing certain types of beer. The combination of these natural minerals help create the flavors known to specific breweries.

Because of this connection between clean water and beer, there is a rising trend for breweries to partner with their local supporters of clean water. Just to list a few other regional partnerships: Saucony

Brewing Company in Kutztown donates a portion of sales from Stonefly IPA to the Schuylkill Action Network, Victory Brewing Company in Downingtown donates a portion of Headwaters Pale Ale to clean water groups through their Headwaters Grant, and Dogfish Head Craft Brewery in Delaware raises thousands of dollars for the Nature Conservancy through the Annual Dogfish Dash. Nationally multiple

breweries have joined the National Resources Defense Council's Brewers for Clean Water Initiative.

It is a myth that the history of beer's popularity originated from drinking beer as a substitute for unsafe water. Beer needs clean water too. Improving the health of our streams makes it easier and cheaper for local water authorities to provide clean drinking water to the community. The Conewago Creek is one of several sources that Elizabethtown Area Water Authority uses to supply drinking water to Elizabethtown -including Moo-Duck Brewery. Clean streams and safe drinking water certainly go hand in hand.

TCCCA is always welcoming new members to the group and hopes this partnership will bring new members to the organization. Educational signs with facts about the Conewago Creek watershed, TCCCA's mission, and the link between clean water and the brewing process will be on display through out Moo-Duck Brewery while TCCCA is featured as the local charity. TCCCA brochures and

other handouts will also be available to those who are interested in learning more.

TCCCA is committed to monitoring, preserving, enhancing, and promoting the Conewago Creek watershed through education, community involvement and watershed improvement projects. This group has completed several large restoration projects in the watershed through acquiring grants. Additionally they have planted hundreds of trees, attended a variety of community events, and developed a Watershed Implementation Plan for the Conewago Creek. If you are interested in joining TCCCA, their next meeting will be held on October 29 at 7:00 pm at the Conewago Township Building. Meetings are generally held on the last Wednesday of each month. More information about TCCCA can be found at <http://conewagocreek.org>.

Consider joining TCCCA and coming out this fall to support a local business and a good cause.



Two Volunteer Tree Planting Events Planned for this Fall



With the arrival of fall and cooler temperatures comes the opportunity to help plant trees around the region.

Saturday, October 18: 9am -12pm - Quittapahilla Educational Wetland Preserve, Lebanon County.

Several hundred trees and shrubs will be planted throughout the wetland, which sits at the headwaters of the Quittapahilla Creek. Wetlands work to protect water quality by

filtering sediment and nutrients from water. Planting trees in a wetland will help maximize the water quality benefits! This event is a partnership with the Lebanon County Conservation District. Email kaustin@cbf.org to register for this event

Saturday, November 8: 9 am-12 pm- Mill Creek, Lancaster County

Between 150-200 trees will be planted along Mill Creek to

supplement a stream restoration project occurring at the site. This event is in partnership with the Lancaster County Conservation District and the Mill Creek Preservation Association. Email klk343@psu.edu to register for this event.

Hopefully you can join the Greening the Lower Susquehanna Volunteer Corp at one or both of these events!

A New Way to Monitor Restoration Projects for Success

The Conewago Creek Initiative developed a monitoring program for landowners to use to detect early signals of stream improvements in the watershed. Through Penn State's Greening the Lower Susquehanna grant, the protocol was expanded to include a wildlife section. The protocol is called F.I.S.H: First Investigation of Stream Health and is intended to be used by landowners who have recently restored their streamside property. Practices like riparian buffers, livestock exclusion fencing, and in-stream habitat structures would all create positive changes to the stream that can be recorded using this tool.

The FISH Protocol walks a landowner through a set of simple observations about various stream health indicators like water clarity, growth of vegetation, and signs of wildlife. The survey should be completed at least once a year in the spring, but additional observations made in the summer and fall are encouraged. In order to fully capture all the changes that will occur, observations should be made for multiple years.

This monitoring technique is a perfect activity for families and a great way to help connect kids with nature.

The FISH Protocol is currently available as a printed document that can be taken out to your stream restoration site. Thanks to the Greening the Lower Susquehanna grant a website and smartphone application are currently in development and will be available for use and download later this fall. The electronic versions will not only make data collection quicker and easier, it will also provide participating landowners an easy way to save their observations and to see change over time.

As positive signs of change start to be recorded, the hope is that landowners will share their results with neighbors and encourage further adoption of streamside practices.

Ideally, proper training in using the FISH Protocol is recommended, to help ensure that landowners get the most out of the monitoring experience. However, the protocol is very simple to use and interested landowners are welcome to explore the protocol and accompanying resources on Penn State Extension's website: <http://extension.psu.edu/natural-resources/water/watershed-education/watershed-evaluation/fish>

Several public training workshops will be held in 2015 throughout the Lower Susquehanna region with details still to be determined. If you are interested in being trained on how to use the protocol or would be willing to help test the smartphone apps when they first become available, please contact Kristen Kyler at klk343@psu.edu. Additionally, if you do not have streamside property but would still like to use FISH, contact Kristen and there may be public sites close to you that could use a monitor.



A small salamander was found during this family's F.I.S.H. survey along the Conewago Creek.

Farmers are invited to “Unlock the Secrets in the Soil and Streams”



Taken from Lancaster Farming- "The USDA Natural Resources Conservation Service and partners are inviting farmers to “Unlock the Secrets in the Soil and Streams” during a workshop

8:30 a.m.-3 p.m. Oct. 29 at the Shady Maple restaurant's banquet and conference center, 29 Toddy Drive, East Earl, Pa.

Soil expert Ray Archuleta and stream ecologist Bern Sweeney will discuss groundbreaking research that will help participants understand how the soil in their fields and pastures, and the streams flowing through their land are assets to their farms and community.”

Attendees will learn about best management practices, such as cover crops, reduced tillage, forested stream buffers and restricted livestock access to streams, that can be used to

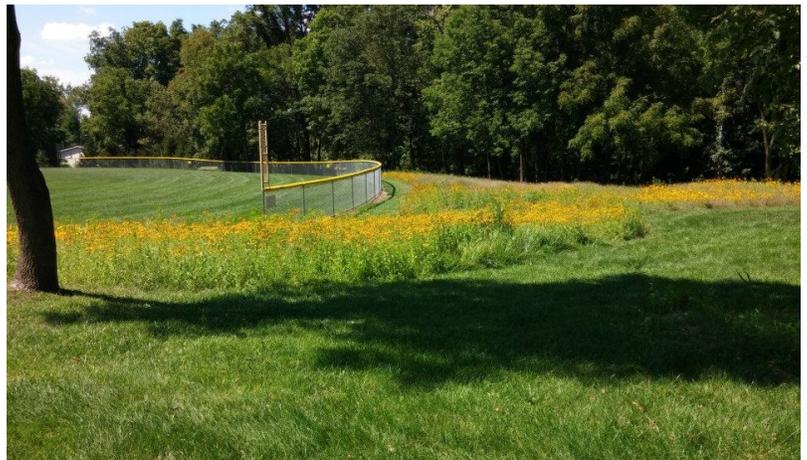
increase productivity, enhance soil health and improve water quality.

This event's partners include USDA NRCS, Pennsylvania Association of Conservation Districts, The Chesapeake Bay Foundation, Stroud Water Research Center, the Lancaster County Conservation District and ELANCO Source Water Protection Collaborative,

For more information or to register, visit <http://goo.gl/d0HhfM> or call 717-238-7223. Registration is necessary to obtain a ticket for a free Shady Maple Buffet lunch.

Space is limited so register early!

Conewago Photo Gallery



This edition's Photo Gallery features wildlife spotted in the watershed this summer and two successful meadow plantings (one in South Londonderry Township and one in Londonderry Township).

Need Inspiration? Follow the Lower Susquehanna Initiative on Pinterest

The Lower Susquehanna Initiative (LSI), the home of Penn State's efforts to improve stream health regionally and the local project coordinator for the Conewago Initiative, has recently formed a Pinterest account. Pinterest is a social media platform designed specifically to share ideas and to organize interests.

The Lower Susquehanna Initiative is using Pinterest to share interesting facts about water and the environment, to inspire followers to take action on their own properties, and to share success stories.

"Pins" or individual ideas expressed through images and web links, are grouped within categories called "boards." Currently the LSI has boards on rain gardens, rain barrels, environmental education, water news, composting and more. A board on cover crops has received a ton of interest recently, increasing our number of followers to more than 850.

If you are already a "pinner" or interested in joining please follow the Lower Susquehanna Initiative and help us spread ideas and motivation for making a positive difference in water quality.

You can find us at <http://www.pinterest.com/PSULSI/> or by searching Pinterest for "Penn State Lower Susquehanna Initiative."



Practice Spotlights

Cover Crops For Farm and Home



Photo from FarmerD Organics (<http://blog.farmerd.com>)

A cover crop is any crop grown for the purpose of

benefitting the soil and other crops by providing nutrients and preventing erosion. The root growth from some cover crops can help loosen soil and create macropores, improving soil structure. Cover crops can also provide nutrients, such as Nitrogen and Phosphorus, by capturing them and making them available to next year's crop, reducing your fertilizer

needs. Cover crops also help protect groundwater by

absorbing excess soil nitrogen which can seep into groundwater; this is especially important if manure is applied in the fall or winter. They can also be a great alternative to herbicide because they prevent weed growth by blocking light to young weed seedlings.

These same benefits apply to home gardens meaning cover crops should be used both on large farms and backyard garden plots. Cover crops that are suitable for both farm and home include: annual rye grass, hairy vetch, buckwheat, red clover, and winter rye. Cover crops

should be planted early in the fall to ensure that substantial growth has occurred before winter to provide the full suite of benefits. 4-6 inches of growth and 50% cover is the goal.

When it is time to plant in the spring, the cover crop will need to be terminated. This can be done through herbicides if no-till is used on a larger farm. For the small garden, hand pulling, cutting, or chopping are all options.

Conewago Partner Spotlight: Elizabethtown College



TCCCA has several members who are connected to local Elizabethtown College. It was therefore a natural fit to connect the students and faculty to the Conewago Initiative and the educational opportunities that watershed restoration provide.

Tom Murray, a Professor of Biology at Elizabethtown College, teaches two to four students a year about environmental monitoring techniques such as macroinvertebrate sampling and pebble counts by utilizing the Hershey Meadows site. The data collected by the students is incorporated into the Conewago Initiative's long term monitoring plan, providing valuable information on the health of the Conewago Creek and the

progress of the restoration efforts at Hershey Meadows.

Elizabethtown students also attended fish shocking surveys in 2012 and attend volunteer tree plantings when they are able. A small group of students also helped monitor Hoffer Creek for erosion in 2013 in partnership with Penn State, the Dauphin County Conservation District, and Fish and Wildlife Service. The data collected will help guide future restoration efforts.

CONEWAGO CREEK INITIATIVE

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Dauphin County Conservation District • Lancaster County Conservation District • Lebanon County Conservation District • Tri-County Conewago Creek Association • South Londonderry Township • Elizabethtown College • Penn State University • PA Department of Environmental Protection • PA Department of Conservation and Natural Resources • PA Fish and Boat Commission • PA Department of Agriculture • USDA Natural Resources Conservation Service • USDA Agriculture Research Service • U.S. Geological Survey • U.S. Fish and Wildlife Service • U.S. Environmental Protection Agency • Chesapeake Bay Foundation • ZedX, Inc. • American Farmland Trust • Capital Area RC&D • LandStudies, Inc. • Wild Resources, Inc. • Tetra Tech, Inc. • Aquatic Resources Restoration Co. • RGS Associates, Inc.

The Conewago Creek Initiative is a project of Penn State Cooperative Extension made possible through funding by the National Fish and Wildlife Foundation and the Foundation for Pennsylvania Watersheds



The Conewago Watershed Community has envisioned a future that establishes the restored Conewago and its tributaries as a centerpiece of pride and a treasured asset in a rural landscape.

This vision includes a strong agricultural community and productive farmland, community recreation areas and vibrant, well planned communities. Pristine landscapes will be protected while providing sustainable uses of natural resources, clean water and streams, and educational opportunities for generations to come.



Calendar of Events

Tree Planting
October 18, 9:00 AM
Quittapahilla Wetland
Education Center, Lebanon
Registration Required

TCCCA Meeting
October 29, 7:00 PM
Conewago Township Building
All are welcome!

Unlock the Secrets of the Soil Workshop
October 29, 8:30 AM
Shady Maple Banquet and
Conference Center
Registration required

Tree Planting
November 8, 9:00 AM
Mill Creek, Lancaster
Registration Required

Conewago Initiative PAT Meeting
October 22 1:00 PM
1st Floor Church Hall, Penn
State Harrisburg

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www.facebook.com/ConewagoCreekInitiative