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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

Volume 5, Issue 4

Fall 2015

The Coordinator's Report

Fall feels a longer this year since November was one of the warmest on record. The nice temperatures are something I was grateful for this Thanksgiving although I know some deer hunters are probably wishing for cooler temperatures.

If you are looking for a reason to get outside while the weather is still nice, check out the new FISH Protocol app described on page 3 and discover how healthy the stream on your property is.

Besides the nice weather, I am also feeling grateful for all the landowners in the Conewago Creek watershed that have taken action over the past several years to make improvements that benefit our

waterways. Three of the farmers included on this long list of individuals, were featured during a Chesapeake Bay Ag Forum in November that you can read about below. The work being

done in this watershed is definitely being recognized across the region.

If you are a farmer interested in learning more about No-till and how it can help build yields and improve our streams, check out page 5 for the details on a workshop that will get you started.

Thank you for reading and supporting the work of the

Conewago Creek Initiative. Have a happy holiday season!

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Conewago Farmers Featured at Annual NFWF Ag Forum

Conewago farmers were featured prominently in the Chesapeake Ag Networking Forum held annually by the National Fish and Wildlife Foundation.

NFWF holds its annual forum for all of its Chesapeake Bay Stewardship Fund grantees to share information and explore innovations in promoting conservation practices on farms. This year, the forum was held in Hershey, and its proximity to the Conewago watershed provided an opportunity for Conewago farmers to share the innovative conservation practices they are doing. The Kopp and Hertzler farms were tour stops on a field trip to the Conewago on Tuesday, November 17, day two of the forum.

Ron Kopp described his dairy and cropping operations to a group of conservation professionals from Maryland, Virginia and Pennsylvania. Attendees were able to gaze over fields of green, growing cover crops, now thriving in fields that were chopped for corn silage in early September. This year, Ron planted about thirty acres of tillage radishes. He dug several up and had them displayed on the tailgate of his Gator. Participants were able to see the massive root structure which helps build macropores to promote water infiltration and create healthy soil. Corn residue was also prevalent in the top soil layer.

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Conewago Farmers

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At the Hertzler farm, John Hertzler showed off his seven year old, 14 acre forest riparian buffer. The buffer has been meticulously maintained, with replantings, tubes to protect against voles and buck rubs, and spraying contributed by Mark Metzler of Wild Resources, Inc., as part of the AEC's buffer maintenance program funded by NFWF. John shared that he has around 20 species of native deciduous trees, 8 shrub species and 4 evergreens species planted in his buffer, providing a diversity that attracts wildlife, birds and insects. Frank Rohrer, buffer restoration specialist for the Chesapeake Bay Foundation in

Clinton County, marveled at the young buffer's success. "If I had a buffer that looked like this in year seven, I'd be ecstatic," he said.

On Wednesday, November 18, Conewago dairy farmer Matt Espenshade shared his family's farm conservation story as part of a panel "Overcoming Barriers to Baseline." He shared how a partnership of NRCS, the Conservation District and the Chesapeake Bay Foundation helped him design the stream bank fencing, crossings and forest riparian buffer that were a priority need for his pasture. He described how the health of the stream has noticeably rebounded, and how information shared at Conewago Winter Farmer meetings hastened a transition to no-till and cover crops on the farm.



Conewago Initiative Inspires New Project in Chiques Watershed

The Conewago Creek Initiative brought together so many partners and landowners in a way that spurred the adoption of so many great landuse best management practices. The model used is spreading throughout the region and encouraging more organizations to work together through focused efforts.

Penn State was recently awarded a Chesapeake Bay Stewardship Fund grant from the National Fish and Wildlife Foundation to facilitate a watershed partnership in the Chiques Creek watershed; just a little south of the Conewago. The purpose of the "Chiques Creek Reenvisioned" project is to facilitate a diverse public/private partnership to increase outreach and engagement of landowners in the watershed and accelerate the adoption of land management practices to improve water quality, in support of existing and continued efforts in the watershed.

There is lots of local momentum that has been growing

in the Chiques watershed attributed to local residents, landowners, and partner organizations. The project is meant to complement the alternative TMDL approach work that the PA Department of Environmental Protection and the Susquehanna River Basin Commission have been leading over the last year.

This project will also help support the continued work of the Greening the Lower Susquehanna Volunteer Corps which has been hard at work for the past three years planting trees, installing rain gardens, performing maintenance activities, and picking up litter in order to improve stream health around the region. If you want to have a hand in improving the Conewago, the Chiques, and other streams in the area, email klk343@psu.edu to learn how you can volunteer.

Conewago Creek Flows Chocolate Brown Following Rain

A healthy stream has clear water, even after it rains. This is because most of the rain water gets absorbed by the forests, wetlands, and meadows that surround an undisturbed stream instead of flowing rapidly down streets, sidewalks, and bare agricultural fields picking up dirt and debris along the way.

While lots of great things are happening in the watershed (more farmers are planting no-till every year, cover crops are being used, trees are being planted, and rain gardens are being installed), there is still a ways to go before the Conewago Creek will flow clear after it rains.

The picture to the right was taken by Jennifer Fetter, Penn State Extension Educator, on October 29 from a plane

after the region had thunderstorms that produced 1.5 inches of rain on the night of October 28. That is a pretty typical storm for Pennsylvania and the image clearly shows the Conewago Creek (top of the image) contributing a brown plume of sediment to the Susquehanna River. The brown flow coming from the

bottom of the picture, by the York Haven Hydroelectric Plant, is coming from the Conewago Creek that flows through Adams and York Counties.

What steps will you take on your property to make the Conewago Creek flow a little clearer after the next storm?



Outdoor Enthusiast? Be a Scientist Too!

Do you enjoy viewing wildlife, fishing, taking nature walks, paddle sports, and other streamside activities? Consider becoming a citizen scientist. You can help observe our changing environment while doing the outside activities you already love. The only tool you need is a pencil or your smartphone.

Over the past year or so, the Initiative has shared updates on the development of a new activity, First Investigation of Stream Health (FISH), which helps you to see how local streams and the habitats around them are changing over time. Until now, it

was only available to download and print. Now, thanks to our partner, Chesapeake Commons, an environmentally focused app developer, there is a free smartphone app that allows you to record your observations quickly and easily.

FISH is a simple, family-friendly activity that asks easy to answer questions about what you see around a stream. What you record with FISH helps you and others understand how the health of the stream habitat is changing over time.

Stream sections that have recently been restored; cleared of

invasive plants, had trees planted along the bank, had livestock fenced out, or other projects, are the most likely to see dramatic change over time. FISH can encourage new landowners to restore their property when positive changes are recorded at a neighboring project site, according to Penn State AEC Director Matt Royer. "High deer populations, excellent fishing, and new birds at the bird feeder can be huge motivators for landowners," he says.

To get started recording data on your stream or at a public access site, visit www.fishprotocol.org.

Conewago Photo Gallery



This edition's Photo Gallery features a comparison of the Conewago Creek at normal flow and during a flood. The top picture is taken from Bing Maps and shows the normal path of the stream. Notice the darker lines in the field below the stream? They outline the floodplain of the stream which can be seen in action in the bottom picture. The bottom picture was taken by Jennifer Fetter, Penn State Extension Educator, on a flight into Harrisburg International Airport on October 29, following a 1.5 inch rain storm the night before. Besides the chocolate brown water, it was a beautiful fall day!

Successful No-Till Workshop Scheduled for December 16

Penn State Extension and the No-Till Alliance are sponsoring a workshop titled Successful No-Till: Strategies to Build Soils and High Yields on December 16 at the Lancaster Farm and Home Center. This is a free workshop. Registration is requested but not required.

Registration and coffee

begins at 8:30 AM. From 9 AM-noon participants will hear presentations on soil health, planter essentials, cover crops, and more. A round table discussion is included in the agenda where attendees will be able to talk with experienced No-till farmers from the PA No-till Alliance, Local Industry, and Penn State Extension Staff.

Register and learn more at: <http://extension.psu.edu/plants/crops/events/successful-no-till-strategies-to-build-soils-and-high-yields>



Practice Spotlight: Importance of Organic Matter

While many factors (weather, management, disease) play a role in growing a successful crop, one factor is being seen as more and more important—soil health. A productive soil is a healthy soil, with high microbial activity, a balance of chemicals and nutrients that plants need for growth, and physical properties that allow for absorption and movement of water.

Soil can be analyzed for these different properties to determine overall health and to make recommendations for improvement. These soil health tests can be expensive though since they examine so many different aspects of the soil.

Charlie White, a Penn State extension associate in sustainable agriculture, and an extension educator

on the Field and Forage Crop Extension team, has been evaluating the different soil health testing packages that are currently available in the hopes of finding an alternative way to judge soil health. He is finding that many soil health processes, such as microbial respiration, can be predicted by simply knowing the organic matter content of a soil.

Thus a simple organic matter test, which costs as little as \$5 from the Penn State Agricultural Analytical Services Lab and many other soil testing labs, can be used as a general indicator of soil health.

One way to increase the organic matter in your fields or home garden is to plant a cover crop. During the fall, after the harvest of your main

crop, planting a cover crop will maintain a natural, healthy agroecosystem. This “green manure” will act as a management technique for reducing soil erosion, and increasing soil fertility over the winter and adding organic biomass to the soil in the spring when the plants die off.

Rye, oats, and clovers are just a few of the many cover crop options that are appropriate for fields and gardens. It is probably a little late to get started this year, but learn all you can this winter and take notice to the green fields you see from the road.

To learn more about cover crops and all their benefits visit: <http://extension.psu.edu/plants/crops/soil-management/cover-crops>

Tri-County Conewago Creek Association Update

TCCCA received a generous donation of more than three hundred evergreen saplings from a Mechanicsburg Christmas tree farm in early summer. The trees were dug up, and transported to a member's property where they were watered and cared for over the long, dry summer. TCCCA is proud to say they found homes for all of them and only had two casualties!

The majority of them were planted within the Conewago Creek watershed on both agricultural and residential properties. A few were also planted in the Manheim area and outside Elizabethtown.

TCCCA has also been busy maintaining its existing riparian buffers and ensuring their continued growth. They are always looking for new

projects and new people, so come to their next meeting on Friday, January 8th to learn how you can get involved!



CONEWAGO CREEK INITIATIVE

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County Conservation District • Tri
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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
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American Farmland Trust •
Capital Area RC&D •
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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

**Successful No-Till:
Strategies to Build Soil and
High Yields**
December 16, 8:30 AM
Farm & Home Center,
Lancaster

TCCCA Meeting
January 8, 7 PM
Conewago Township Building
3279 Old Hershey Rd
Elizabethtown

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