



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.*

Inside this issue:

Hershey Meadows Sampling	2
Tree Planting Event	2
Volunteer Event Summary	3
Pollinator Workshop	3
Drinking Water Workshop	3
Photo Gallery	4
Pipeline Information	5
Partners and Practices	5
Calendar	6

Conewago Currents

Volume 4, Issue 3

Summer 2014

The Coordinator's Report

Anyone complaining about the heat yet? While personally I am glad summer weather is finally upon us, the Initiative has been grateful for the cool and wet spring.

Tree plantings are much more successful when they are completed before the droughts of summer and this year we have been able to extend the planting season all the way until mid-June. In fact, a tree and perennial flower planting is being held this Saturday, June 14th along Swatara Creek Rd in Middletown. See page 2 for more information. I hope you will be able to join us.

If you aren't interested in planting trees this weekend, just remember to spend a moment in nature this Saturday

as it is National Get Outside day! This is a great time of year to take notice of all the trees and riparian buffers that have been planted over the years. Many of the projects that the Initiative has helped support are growing, thriving, and changing the landscape. Read the article about the Hershey Meadows project to learn how monitoring is being done to track these changes. If you have before and



after pictures of "green" projects on your property, we would love to see them and share them in our next newsletter. Just send me an email.

When you are ready to go inside and escape the heat of summer, think about attending a workshop. Two upcoming workshops are described on page 3. If you have a private well and are concerned about keeping the water healthy to drink, the Safe Drinking Water Workshop might be of interest.

I hope you enjoy the summer edition of Conewago Currents!

Kristen Kyler

Penn State Ag and Env't Center
klk343@psu.edu
717-948-6609

Old Hershey Rd

During the fall of 2012 a restoration project began on the Conewago Creek just downstream of the Old Hershey Road bridge. Log vanes and muddills were installed to reduce erosion and redirect the flow of water to the center of the stream. Trees were planted during the following spring to ensure the long term success of the project.

Over the past several weeks, the Fish and Wildlife Service stream restoration crew was back at work on this section of stream. Additional structures were installed just downstream of the previously completed project

to fully restore this section of the Conewago. This work was funded by an EPA 319 grant awarded by PA DEP to the Dauphin County Conservation District and is located on Hershey Trust property.

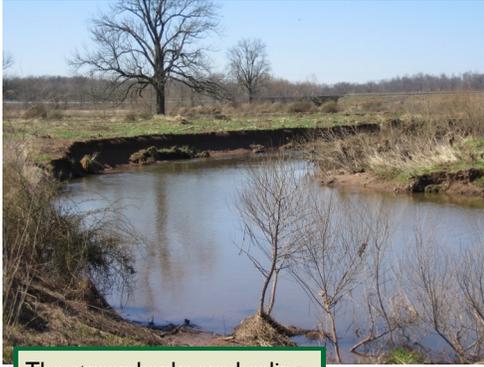
Trees from the Greening the Lower Susquehanna tree nursery will be planted on site to create a riparian buffer. Prior to this work, this section of stream was characterized by steep, eroding banks and deep sediment deposits.

Together, the structures installed during both phases and the trees will reduce erosion and protect around 1,500 feet of the Conewago Creek.



A Changing Hershey Meadows

Hershey Meadows, the large wetland and section of stream situated between Routes 743 and 283, has changed significantly since its establishment in 2009. The project restored a mile of eroded stream banks and established 15 acres of wetlands on Hershey Trust property. Before the project, the stream banks were steep and experiencing high levels of erosion. The floodplain had very little vegetative diversity and the stream supported less desirable species of fish and bugs.



The streambanks are healing and trees are growing tall. Hershey Meadows in 2009 (above) and in 2014 (below).



There was a preliminary biological assessment done at the start of this project to establish a baseline for monitoring project success. Since then, several other monitoring activities have taken place—like the fish survey we reported on in 2012.

On June 1, Penn State partnered with Juniata College to complete a detailed post project assessment. Students and professors from both schools collaborated on several different methods of sampling to assess the overall quality of the ecosystem. A kick net was used to collect macroinvertebrates, which are good indicators of stream health. A few notable macroinvertebrates that were found include mayflies and damselflies. The creek was also electro-shocked to count and identify the fish species present. Some species found include bluegill, pumpkinseed, and rock bass. Chemical tests were done to determine stream temperature, pH, and other physical parameters. Transects were walked over the entire project to identify the plants species present. The data collected is still being analyzed, but some preliminary results should be available and posted to our website by next week. Regardless of the results shown, it is easy to see the changes in the streambank, the growth of the riparian buffer, and the abundance of wildlife—all positive improvements!

On June 1, Penn State partnered with Juniata College to complete a detailed post project assessment. Students and professors from both schools collaborated on several different methods of sampling to assess the overall quality of the ecosystem. A kick net was used to collect macroinvertebrates, which are good indicators of stream health. A few notable macroinvertebrates that were found include mayflies and damselflies. The creek was also electro-shocked to count and identify the fish species present. Some species found include

bluegill, pumpkinseed, and rock bass. Chemical tests were done to determine stream temperature, pH, and other physical parameters. Transects were walked over the entire project to identify the plants species present. The data collected is still being analyzed, but some preliminary results should be available and posted to our website by next week. Regardless of the results shown, it is easy to see the changes in the streambank, the growth of the riparian buffer, and the abundance of wildlife—all positive improvements!



Students from Juniata College and Penn State analyzing samples

Plant a tree with us on National Get Outdoors Day, June 14



Londonderry Township, the Chesapeake Bay Foundation and Penn State Extension's Greening the Lower Susquehanna Initiative are hosting a volunteer event to plant trees along the Swatara Creek. This event is taking place on **Saturday, June 14, 2014, 9AM-Noon**. Community members, organizations, families, and individuals are encouraged to attend.

After the devastating floods of 2011, Londonderry Township purchased properties

along **Swatara Creek Rd in Middletown** through the FEMA buyout program. To do their part to improve water quality and to prevent future flooding, Londonderry Township has a vision to plant these properties forming a riparian buffer to the Swatara Creek. Last fall volunteers planted over 600 trees and on June 14th volunteers are needed to help plant an additional 600 trees to further improve the site. The

township was awarded a PA American Water grant to purchase the trees that will be planted at this event.

Volunteers are asked to dress appropriately and bring gloves, shovels, and a water bottle.

Please register for this event on Chesapeake Bay Foundation's website: <https://www.cbf.org/events/other/pa/restoration-events/registration/londonderry-tree-planting>

A Spring Full of Volunteer Activities

May and June have been busy months for the Initiative and Greening the Lower Susquehanna volunteers!

Earth Day Celebration

The annual Conewago Earth Day Celebration was held on May 3rd at Aberdeen Mills. More than 20 individuals attended and learned about forest management, native and invasive wildflowers, and the history of Aberdeen Mills. Attendees also volunteered to pull invasive garlic mustard from the property's woods and to pot 200 bare root tree seedlings. The kids in attendance thoroughly enjoyed pulling the garlic mustard and took what they learned home with them to their own gardens!

Rain Garden Workshop

On May 17, the Conewago Initiative partnered with Londonderry Township to host a rain garden workshop. Participants learned why rain gardens help improve our water quality, how to construct a rain garden, and why planting native plants is the best option.

Once the presentation segment of the workshop concluded, participants were then able to help with a native planting at the Londonderry Township building.



Hummelstown Planting

On June 7, Manada Conservancy and the Borough of Hummelstown hosted a tree planting on a property purchased by The Borough through the FEMA buyout program. About 15 volunteers planted nearly 60 trees along the stream bank to form a riparian buffer to the Swatara Creek.

This event was a Greening the

Lower Susquehanna volunteer event. Greening the Lower Susquehanna is a grant project funded by the National Fish and Wildlife Foundation and awarded to Penn State with the goal of expanding upon the lessons learned from the Conewago Initiative and spreading them to neighboring watersheds.

Tree Nursery

The Greening the Lower Susquehanna grant also supports a native tree nursery which can provide free trees to landowners interested in planting riparian buffers or converting turf to trees. Davis Nursery, which is located in the Conewago watershed, is nice enough to house the trees and provide supplies for maintaining them. This spring, several volunteer events have been held to grow the nursery supply. Currently there are about 1,200 trees being cared for this summer that will find new homes this fall. If you, or someone you know, is interested in acquiring trees for a planting, please contact Kristen Kyler at klk343@psu.edu or call 717-948-6609.



Londonderry Township is Holding a Pollinator Workshop

Saturday, July 19

10:00 am to 1:00 pm

**Londonderry Township Building
S. Geyers Church Rd., Middletown**

The workshop will teach participants about the importance of pollinator gardens, pollinators, and pollination. Many pollinator species have declining populations which may have an effect on the future of food production.

Pollinator gardens are one way you can help bees, butterflies, hummingbirds and other species to survive and thrive.

The workshop will include guest speakers and the first 30 guests will receive a free pollinator plant to take home. The workshop is FREE but registration is preferred by July 5th. To register please send an email to all5380@psu.edu or call 717-944-1803

You are invited to attend a Pollinator Workshop being held by Londonderry Township.

Safe Drinking Water Workshop Offers Affordable Testing with Quick Results

The Lebanon County Conservation District and Penn State Extension are hosting a drinking water testing workshop on **Wednesday, June 18, 2014 at the Lebanon Valley Agricultural Center**. There are two sessions offered: 2PM-4PM and 6PM-8PM.

This workshop is designed for private well owners who wish to have their drinking water tested and also learn about groundwater supply, proper construction of wells and how to properly care for springs. Information on

private water supply problems will also be included. Registrants will have the opportunity to have their drinking water tested and get some results the evening of the workshop.

There is a \$10 registration fee due Friday, June 13. For more information on the workshop and how to prepare your drinking water sample for testing, visit Lebanon County Conservation District's website www.lccd.org, or contact Chuck Wertz: charles.wertz@lccd.org. Space is limited so register early.



In addition to attending this workshop, check out the new Penn State Extension mobile device app called H2O Solutions. The overall objective of the App is to help users diagnose the causes of observed water quality problems and guide water testing decisions.

Conewago Photo Gallery



This edition's Photo Gallery features scenes from the Conewago Earth Day Celebration, a volunteer tree potting event, Hershey Meadows in action holding onto flood waters, and a fish caught during the Hershey Meadows sampling.

Learn More About the Pending Pipeline

As you have probably heard, a natural gas pipeline, known as the Atlantic Sunrise Project is being proposed for Pennsylvania. Williams, the operator of the Transco pipeline that the Atlantic Sunrise Project will be a part of, is in the preliminary stages of filing for Federal Energy Regulatory Commission (FERC) approval.

The proposed pipeline will travel through Columbia, Northumberland, Schuylkill, Lebanon, and Lancaster Counties. It will cross through the Conewago watershed

near the town of Lawn.

To view a map of the proposed route and to learn where Williams is in the filing process visit Williams website: <http://atlanticsun.wpengine.com>

To learn more about the FERC filing process, what rights landowners have, and how safety and environmental issues are handled, view the FERC produced guide "An Interstate Pipeline on my Property: What Do I Need to Know?" at <http://www.ferc.gov/for-citizens/citizen-guides/citz-guide-gas.pdf>

For more information about pipelines and negotiating right-of-way

agreements see Penn State Extension's factsheet: <http://extension.psu.edu/natural-resources/natural-gas/publications/negotiating-pipeline-rights-of-way-in-pennsylvania>



Practice Spotlights

Water is a precious resource that we often take for granted, especially here in Pennsylvania where it rains on a fairly consistent basis. It is always important to conserve water in order to protect our groundwater supply and our local streams.

We never know the worth of water till the well is dry.
~ Thomas Fuller

Here are a few tips on how you can use less water:

On the Farm

- monitor rainfall and only irrigate fields when necessary



- schedule irrigation and avoid using water during the heat of the day
- adjust irrigation rates based on soil moisture retention
- Replace or repair pipes, spigots, and hoses that leak
- reduce soil compaction to increase pore space and water infiltration

Around the Home

- Take shorter showers
- Only run the dishwasher when full,
- check and repair leaks in spigots and hoses
- purchase second-hand clothing
- recycle paper, plastic, and metals
- use less gasoline and electricity;
- Only water your plants or lawn in the morning or evening to minimize evaporation.

Don't Just Conserve, Collect

Collect rainwater with a rain barrel to use for watering plants and washing cars, tools, patio furniture, and more.



Conewago Partner Spotlight: Manada Conservancy



Manada Conservancy are to preserve natural and agricultural lands and to educate the community about environmental issues. About 800

Manada Conservancy is a non-profit land trust in Dauphin County. The goals of

acres of land have been preserved by Manada Conservancy thus far. Manada Conservancy has an excellent volunteer network, which makes them a great partner for volunteer projects in Dauphin County.

Manada Conservancy specializes in land preservation but they also feel strongly about the need for riparian buffers.

They have partnered on several projects with Penn State and other partners to plant trees along the Swatara Creek. They have also provided expertise on native plants. They lead several informative workshops each year to educate residents about a variety of environmental topics. To learn more about Manada Conservancy or to become a member, visit them online at www.manada.org.

Community working together for a restored Conewago.

CONEWAGO CREEK INITIATIVE

Kristen Kyler
Local Project Coordinator
Penn State Harrisburg
307 Church Hall
777 West Harrisburg Pike
Middletown PA 17057
Phone: 717-948-6609
Email: klk343@psu.edu

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
June 14 9:00 AM
Swatara Creek Rd, Middletown
Registration Required

Safe Drinking Water Workshop
June 18
2-4 pm or 6-8 pm
Lebanon Valley Agricultural Center
\$10, registration required

Litter Pick-Up
July 12
More details to come— check our website.

Pollinator Workshop
July 19 10:00 am—1:00 pm
Londonderry Township Building
783 S Geyers Church Rd
Registration required

Conewago Initiative PAT Meeting
July 23 1:00 PM
1st Floor Church Hall, Penn State Harrisburg



www.facebook.com/ConewagoCreekInitiative