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**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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Spring 2011

## The Coordinator's Report

Spring was late coming to the Conewago watershed, and when it did, the skies opened up. It has been a soggy spring in the Conewago, challenging farmers and homeowners alike. But with some hotter weather this last week of May, summer is right around the corner!

Despite the rain, it was a busy spring for Conewago Creek Initiative partners. District and NRCS technicians continue to work with many farmers in the watershed, providing them with technical assistance to put conservation practices on the ground. Speaking of putting practices on the ground, volunteers of all ages helped plant trees along the Conewago in early May, restoring several acres of riparian buffer. Look for the tree tubes along the creek west of Route 743 and north of Route 283 and you will see the fruits of their labor. A break in the rains in late April

allowed for a successful Conewago Earth Day Celebration at Aberdeen Mills. The highlight of the morning was seeing the large and healthy smallmouth bass, caught (and safely released) during the fish sampling event. Finally, as you will read below, the first USGS stream gauge was installed in the lower Conewago this spring. This gauge will allow us to gather data to show the improvements in the stream as more and more landowners adopt practices.

It was a busy spring, and summer promises to be the same. We are pleased to have a summer intern, Justin Kauffman, a senior Environmental Resource Management major at Penn State.

Be sure to bookmark our [website](#) and visit often; our calendar is updated regularly. As always, contact me to learn how to get involved!



**April (and May) showers have brought flowers to the Conewago.**

*Matt Royer*

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## Monitoring Conewago Water Quality

Among the goals of the Conewago Creek Initiative is to monitor the quality of the water in the Conewago and its tributaries so that improvements resulting from landowner adoption of best management practices can be documented.

The Conewago Initiative Monitoring Team, chaired by Eliza-

bethtown College Biology Professor Dr. Tom Murray, has developed a comprehensive long term monitoring plan for the Conewago. The plan builds upon existing stream monitoring conducted by the Dauphin County Conservation District over the last several years.

The plan calls for regular

monitoring of 13 stations throughout the watershed, including several stations on the main stem Conewago and one on all of its major tributaries. Stream samples will be taken and analyzed for water quality, including phosphates, nitrates, and sediment content. Macroinvertebrate (aquatic insect) **See MONITORING page 2**



**“It could be up to a decade or more until the practices installed today result in a cleaner Conewago.”**

*Mike Langland, USGS*

## Conewago Monitoring (cont.)

samples will be taken once every three years to investigate the effects on aquatic life. Fish sampling will also be conducted once every three years at three of the stations.

The U.S. Geological Survey (USGS), in cooperation with many federal, state, and local partners, is installing two stream flow and water quality data collection gauging stations in the Conewago. The first gauge was installed this spring near Sawmill Road. The second gauge will likely be installed later this summer at an upstream location.

The gauging stations will contain a small structure that will house automatic equipment that will continuously monitor the flow and selected water-quality parameters including temperature, specific conduc-

tance, turbidity, and precipitation. Each site will be equipped to automatically collect water-quality samples on storm events.

USGS stream flow and water-quality monitoring programs provides data to the public for a variety of purposes, including: flood forecasting; characterizing current water quality conditions; detecting changes in stream flow and water quality due to human activities; computing loads of sediment and chemical constituents; documenting interactions among surface water, groundwater, and atmosphere; and showing interconnections between stream flow, water quality, and biological systems.

The data collected at the Conewago gauges will be displayed in “real time” on the [USGS web-site](#). Other local streams with such gauges include the Swatara

Creek, Yellow Breeches Creek, Conodoguinet Creek, and Conestoga River.

So how long will it be until the monitoring results will show a cleaner Conewago? “It will take quite a while,” says Mike Langland, USGS Hydrogeologist and the agency’s lead on the Conewago Initiative.

“Studies have shown there is a significant lag time in seeing water quality improvement once best management practices are put in the ground,” explains Langland. “It could be up to a decade or more until the practices being installed today in the Conewago result in cleaner water for the residents of the watershed and the critters living in the streams.”

## Earth Day Celebration, Tree Planting Highlight Spring Events



**Fish sampling was a highlight on Conewago Earth Day.**

In between the raindrops, Conewago Initiative partners and Conewago watershed community members were busy this spring.

On Saturday, April 30th, Aberdeen Mills owners Merritt and Katcha Neale hosted the third annual Conewago Earth Day Celebration.

The morning featured a forest stewardship walk lead by Lancaster County Conservancy forester Tom Stahl, and displays and tips on native landscaping

and healthy lawn care from Bryce Davis of Davis Organics and Andy Korzon of LandStudies.

Representatives of local groups including Tri-County Conewago Creek Association, Dauphin County Conservation District, Manada Conservancy, and Penn State Extension were on hand to meet with attendees and provide information on backyard stewardship, land preservation, and watershed restoration.

Activities included stream sampling led by Mike Yanchuk of the Dauphin County Conservation District, a kids “create a stream” activity led by Jennifer Fetter of Penn State Extension, and fish sampling led by Matt Kofroth of the Lancaster County Conservation District.

The beautiful smallmouth bass caught and released during the fish sampling was the undeniable highlight of the day!

One week later on May 7, about a dozen watershed volunteers partnered with TCCCA, the Chesapeake Bay Foundation, and Wild Resources, Inc. to plant several hundred trees at the Hershey Meadows restoration project along the Conewago Creek between Routes 743 and 283.

Mark Metzler of Wild Resources, Inc. provided a brief training on how to plant, tube, and stake the trees, and volunteers were on their way, planting several hundred trees to complete the restoration of a forest riparian buffer on the Lancaster side of the creek. The Dauphin County side will be planted in the fall.

A special thanks to all our volunteers who joined us for the planting!



**Volunteers helped plant a riparian buffer along the Conewago this spring.**

## Conewago Partner Spotlight: County Conservation Districts

Among the most critical partners in the Conewago Creek Initiative are the Dauphin, Lancaster, and Lebanon County Conservation Districts.

What is their role in the Initiative? Along with the local watershed group, the Conservation Districts provide the local perspective to the partnership. Many District staff have been deeply involved in the outreach and technical assistance work of the Initiative. Over the past year, agricultural technicians from all three counties have conducted baseline conserva-

tion surveys of farms throughout the watershed. Survey results allow the Districts to credit Conewago farmers who have installed conservation practices on their own, and to prioritize farmers who want or need to install more. The Districts are now actively reaching out to those farmers and working with them on the development of conservation and nutrient management plans, and providing technical assistance to install more conservation practices.

County Conservation District staff are also involved in providing watershed education and outreach to homeowners and other watershed community members. The Districts were key partners at this spring's Earth Day event, leading stream and fish sampling events.

The Dauphin, Lancaster, and Lebanon County Conservation Districts are truly invaluable partners in the Conewago Creek Initiative.

*If you are interested in implementing conservation practices on your farm, contact your County Conservation District.*

## Scout Maintains Conewago Native Tree Nursery

Tri-County Conewago Creek Association is partnering with a local scout to raise and plant native trees in the Conewago watershed.

Logan Finley is a watershed resident and an Elizabethtown High School student. He is also a scout actively pursuing his Eagle Scout badge. Logan's interest in the outdoors led him to approach his local watershed group to see if there might be an opportunity for an

Eagle Scout project that could improve the watershed he calls home. After attending the group's meetings, he developed a project to tend native tree seedlings in a nursery in his backyard this spring and summer, and then organize a volunteer planting on the property of a willing Conewago landowner in the fall. By tending the trees in a nursery setting, they will get a bit of a head start and be more likely to survive once they are planted.

The ambition of watershed residents like Logan and the landowner he will be partnering with is what is making the Conewago Creek Initiative a success.



**Local scout Logan Finley will be tending these native trees this summer and planting them in the Conewago watershed this fall.**

## Practice Spotlights

### On The Farm: Nutrient Management

Nutrient management is a key best management practice for all farms. Good nutrient management ensures that nutrient resources are balanced so they result in good crop yields but are not wasted and enter streams. Large livestock farms (CAFOs and CAOs) must develop and implement nutrient man-



agement plans. In addition, farms of any size that use or produce manure must have and follow a manure management plan. Contact your Conservation District to learn more about these plans.

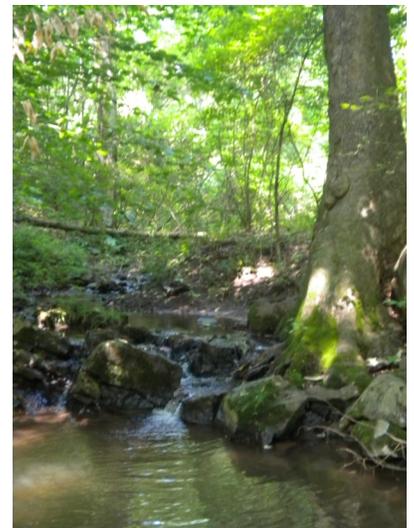
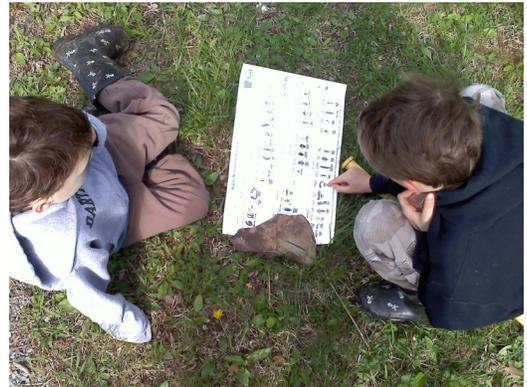
### Around The Home: Backyard Buffer

Do you have a stream running through your property? Consider starting a backyard buffer! Whether it is a tiny channel you can step across or the main stem Conewago, riparian buffers are important. Riparian buffers are "no mow" zones along a stream that help filter pollutants and improve water quality. The wider you can

make your buffer the better. Planting it with native trees and shrubs will make it even more effective in improving water quality. [Email](#) the Conewago Initiative to learn how to start your backyard buffer today!



### Conewago Photo Gallery



**This issue's photos feature May 7 Conewago tree planting; April 30 Earth Day Celebration; forest owner outreach; and spring wildlife and scenes from the around the watershed.**

## Watershed Friendly Properties Workshop June 14

Are you a property owner searching for ways to improve water quality and enhance wildlife habitat in your own backyard? Consider attending the "Watershed Friendly Properties" Workshop.

The workshop will be held on Tuesday, June 14<sup>th</sup> from 6:00 to 9:00 PM at the Lancaster Environmental Center, 1 Nature's Way, Lancaster, and is sponsored by LIVE Green, an urban greening initiative in Lancaster.

Leading the workshop are two

acclaimed green stormwater professionals, Michele Adams, founder and principle engineer of Meliora Environmental Design, and Tavis Dockwiler, co-founder of viridian landscape studio, a firm specializing in ecological landscape architecture. They will teach landowners how to assess their property and design sustainable systems for stormwater management by reading land and soils to maximize native plantings, wildlife habitat and water quality.

"Workshops such as this are key to understanding of how to capture and use rain water effectively," says Fritz Schroeder, Director of Programs for Lancaster LIVE Green. "Identifying opportunities to create a property that captures water and enhances the local environment is critical to protecting our watersheds."

To register, contact Fritz ([fritz@livegreenlancaster.org](mailto:fritz@livegreenlancaster.org)) or (717) 669-5990.



Photo by Ward Wilson, Tetra Tech

## Landowner Surveys Wrapping Up

This spring, many Conewago residents found Conewago Creek Initiative surveys in their mailboxes. The surveys asked residents to provide responses on the quality of water in the Conewago, the uses of the watershed, and their knowledge and interest in various land management practices to improve water quality.

Collection of the surveys is wrapping up, and many, many residents have returned the

surveys to Penn State researchers. Dr. Kathy Brasier, Assistant Professor of Rural Sociology at Penn State, will analyze the results and produce a report summarizing current attitudes about clean water in Conewago.

By showing what issues Conewago Creek watershed residents prioritize and want to learn more about, the survey results will help Initiative partners develop programs and

services that will have the greatest value for Conewago residents.

Thanks to all of you who participated in the survey! Results are expected by late summer or fall 2011.

**Survey results will help Initiative partners develop clean water programs and services prioritized by watershed residents .**

## Youth Education Corner *by Jennifer Fetter, Penn State Cooperative Extension*

What activities are your kids participating in this summer? Scouting, sports camps, summer music programs, 4-H fairs, horseback riding lessons, overnight camps?

All of these activities not only require water, but they also have an effect on the local water in your community.

Consider having your child participate in 4-H Stream Teams activities this summer.

The Conewago Creek Watershed is the focus of the 4-H Stream Teams pilot efforts, called Conewago Stream Teams. We can bring water related activities to your child's existing summer or year-round program, or you could gather a group of neighborhood kids and start a brand new Stream Team!



To learn more about Conewago Stream Teams, contact Jennifer Fetter at Penn State Extension in Dauphin County ([jrf21@psu.edu](mailto:jrf21@psu.edu) or 717-921-8803).

## 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. Geologic Service • U.S. Fish and Wildlife Service • U.S. Environmental Protection Agency • Chesapeake Bay Foundation • ZedX Corporation • American Farmland Trust • Capital Area RC&D*

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## Community working together for a restored Conewago.

**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

**June 14, 6:00 pm - 9:00 pm**

### **Watershed Friendly Properties Workshop**

Lancaster Environmental Center  
One Nature's Way, Lancaster  
(717) 669-5990

**June 23, 7:30 am - 4:00 pm**

### **Lancaster County Sustainable Landscapes Bus Tour**

Farm & Home Center  
1383 Arcadia Road, Lancaster  
(717) 214-7511

**August 4, 7:00 pm - 9:00 pm**

### **PA Chautauqua Lecture Series: Native Landscaping for Your Backyard**

Debra Kirkpatrick, R.L.A.  
Hall of Philosophy, Mt. Gretna  
(717) 948-6459

**June 21, 2:00 pm - 5:30 pm**

### **TreeVitalize Streams Workshop**

Manheim Township Public Library  
Overlook Community Campus  
595 Granite Run Drive, Lancaster  
(717) 475-3964

**June 29, 7:00 pm - 9:00 pm**

### **July 27, 7:00 pm - 9:00 pm Tri-County Conewago Creek Association Monthly Meetings**

Conewago Township Building  
3279 Old Hershey Rd, Etown  
(717) 948-6459

Check the [Conewago Calendar](#) often for updated events!

**June 22, 9:00 am - 3:00 pm**

### **Penn State Extension Sustainable Cropping Systems Research Tour**

Ag Progress Days, Rock Springs  
1-877-489-1398

**July 19, 9:45 am - 12:15 pm**

### **Conewago Initiative Project Advisory Team Meeting**

Location TBD  
(717) 948-6459