

Stonycreek-Conemaugh River Improvement Project

Cambria County Conservation District
Recognized by Len Lichvar

Keystone Coldwater
Conference 2014

By Len Lichvar

Volume XX!
Number 1
Winter 2014

Save the Date:

March 29– Litter Clean Up, Little Paint Creek, 9 am. Volunteers contact Melissa Reckner 814-444-2669.

April 11– Que Creek trout stocking, 7:30 am
(cont. page 2)

See Google Calendar on SCRIP website for more information.



Photo by Len Lichvar

Photo L to R - PFBC Habitat staff member Phil Thomas, PFBC Stream Habitat Manager Mark Sausser, PFBC Executive Director John Arway, Cambria County Conservation District Manager Rob Piper, PFBC Lake Habitat Manager Ben Page, PFBC Habitat staff member Mike Swartz.

The Somerset Conservation District program “Quemanahoning Creek- A Watershed Odyssey” was presented at the 2014 Keystone Coldwater Conference in State College recently by District Manager, SCRIP Chairman and Mountain Laurel Chapter of Trout Unlimited Stream Improvement Chairman Len Lichvar along with District Watershed Specialist Greg Shustrick.

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The Cambria County Conservation District was recognized by the Pennsylvania Fish and Boat Commission (PFBC) at the Commission's Quarterly Commission meeting in Harrisburg for their work in partnering with and leveraging funding for the Commission's habitat improvement projects in Cambria County. Over the past 6 years 782 fish enhancement habitat structures have been placed in three public reservoirs in Cambria County. The efforts have also stabilized 4,010 feet of eroded shoreline all of which have improved angler access and recreational opportunities.

L to R- Randy Buchanan, President of the Mountain Laurel Chapter of Trout Unlimited (MLTU), Pat Buchanan, Treasurer of MLTU and Greg Shustrick, Somerset Conservation District Watershed Specialist at the 2014 Keystone Coldwater Conference. MLTU was the first organization to adopt and sponsor the Quemanahoning Creek Watershed Restoration Plan, created by Len Lichvar **in the early 1990's.** *Photo by Len Lichvar*



Consult Google Calendar for More Information

Want to keep up to date on SCRIP board meeting information?

Need more details about SCRIP and Partner activities, including more specific meeting places and contact information of Save the Date events?

Check out our Google Calendar:
www.scrippa.org/calendar.shtml.



Save the Date

April 17– Chainsaw Safety Training. Contact Robb Piper
814-472-2120

April 18– SCRIP board meeting,
Gander Mountain, 9am

April 23– MLTU social at Rizzo's
RSVP by April 21: 814-467-4034

April 29-Cambria County Environ-
thon

May 6– SEC Stream Monitoring
Training, Newry, PA.

May 12– SCRIP board meeting
Gander Mountain, 10:30 am

May 14– CVC Annual Meeting,
6pm

June 5-8 -Kiski Conemaugh So-
journ

June 26-& 27– AMR Conference,
State College, PA

Oven Run Workgroup Meets



Officials from the PA DEP, the Somerset County Conservancy, the Somerset Conservation District, the PACD Technical Assistance Team, and one public citizen met on January 28 at the Somerset Conservation District office to discuss the problems and rehabilitation of some Oven Run sites.

Existing Oven Run Sites A and B, the wetland area upstream of the Oven Run sites, and Pokeytown and Lamberts Runs wells discharges were discussed. In many cases more data needs to be collected before rehab can be determined.

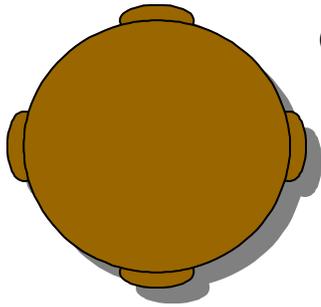
It was agreed that all of the existing Oven Run sites will be visited and inventoried in March to determine the rehab needs of each. That information will then be used to submit an O and M grant request to Growing Greener. PA DEP will assist the Somerset Conservation District in construction of two more weirs on Pokeytown Run. More data needs to be collected at Pokeytown Run in order to address those AMD discharges; that process will be a long term goal.

Keystone Coldwater Conference *(continued from page one)*

The program documented the historic and once thought impossible task of improving water quality, increasing recreational opportunities and creating positive economic impacts in the 98 square mile sub basin of the Stonycreek River watershed. The program focused on the many and unique public partnerships forged, similar to the SCRIP driven initiatives of which the Quemahoning effort was a part of, that led to miles of restored fishery, public acquisition of the Quemahoning Reservoir as well as the creation of public parks and green space. The program also included video footage of interesting and successful angling exploits in the main stem of Quemahoning Creek that was once essentially dead and lifeless.

The conference included dozens of other informational programs and success stories on cold water conservation efforts from across the state.

The District's program is available for viewing by any group or organization looking for a program that blends serious resource conservation efforts into an entertaining format. Contact the District at 814-445-4652 Ext. 5 or email somersetcd@wpia.net.



Call for SCRIP Board Member Candidates

SCRIP has some open seats and is seeking candidates to serve on its board. If you have an interest in our local water quality and are willing to share your knowledge and expertise with others, then consider serving on our board. If you think you might be interested or have any questions, please contact SCRIP Chairman, Len Lichvar: len-scd@wpia.net.

Water Quality Monitoring Training for Seniors Set for May 6

Are you 55 years or older, live in Blair or Cambria County and want to become involved in protecting our watershed resources and educating the public on the natural world? If so, the Pennsylvania Senior Environment Corps (SEC) wants you.

The Cambria County Conservation District and the Blair County Conservation District, along with Nature Abounds, a national non-profit and organizer of the SEC program, are working together to engage senior volunteers in environmental activities throughout the region. Members can participate in a variety of tasks from monitoring water-quality, observing and reporting on wildlife, and even helping with office tasks. The possibilities are endless. Blair County has had an active SEC program for over a decade, and the Cambria County SEC is new.

According to Nature Abounds President, Melinda Hughes-Wert, “We’re thrilled that Cambria County will have a new Senior Environment Corps (SEC). There has been SEC groups in surrounding counties for quite some time – Indiana, Blair, and Clearfield - so it’s time for Cambria to have one too.”

Robb Piper, Manager of the Cambria County Conservation District said, “The Board of Directors is looking forward to engaging new senior resources for conservation in Cambria County.”

Hughes-Wert continued, “Senior Environment Corps members have monitored water quality, helped to inventory wildlife, marked abandoned oil wells and educated the next generation of environmental stewards. Since 1997, SEC volunteers in Pennsylvania have contributed over 2,000,000 hours to the Commonwealth’s environment, and that contribution is estimated to be valued at over \$3,000,000 a year. In 2013, the SEC program won a Western Pennsylvania Environmental Award.”

For anyone interested in joining either SEC group in Blair or Cambria County, they are invited to attend the joint water quality monitoring training on May 6th at the Newry Lions Club Park from 10 AM until approximately 3 PM. To attend the training or for more information about the SEC program, contact Melinda Hughes-Wert of Nature Abounds at either 814-765-1453 or at sec@natureabounds.org.

RSVP’s for the event will be accepted until May 2nd.

Abounds is bringing people together for a healthy environment

Contact Information:

Melinda Hughes-Wert

Nature Abounds

814-765-1453/media@natureabounds.org



**SENIOR
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Seese Run Discharge Treatment: A Senior Design Project

by Jacob McClosky

Hello, I'm Jacob McCloskey from Saint Francis University (SFU) in Loretto. My Senior Capstone project is to design a pair of treatment systems in Windber to counteract highly acidic mine drainage that is flowing into Seese Run. These discharges have a pH less than 4.0, which allows aluminum (poisonous to fish) to be dissolved. These acid waters are being deposited directly into Seese Run and flowing untreated into Paint Creek. As the contamination spreads through these channels, it impacts a much larger area than the sight of the small discharges would initially suggest. The high metal concentrations and low pH impair the stream below the discharge.

As Seese Run is the second largest tributary into Paint Creek, restoring the quality of the stream also improves stream health of Paint Creek. Paint Creek, as a cold water fishery, is a stream where native brook trout could flourish when not impacted by acid mine drainage.

This project was agreed upon between myself and Melissa Reckner, the director of Kiski - Conemaugh Stream Team, as a way to tie in an internship I previously had with the Kiski-Conemaugh Stream Team. The Stream Team samples the Seese Run discharges, so designing a treatment system for these discharges neatly ties their efforts to a real service we can provide via my program at SFU. Water treatment is the focal point of Environmental Engineering education at SFU, making this remediation project a good fit for a Capstone project.

In order to remediate the stream, I am designing passive treatment systems that have a long life expectancy while maximizing effectiveness and minimizing cost. Limestone based remediation is popular and proven in the Appalachian Mountains, and I saw reason to further apply this approach. Active, non-limestone treatments, could cost over three times as much as a limestone channel and a wetland of comparable efficiency could cost almost as much as the active treatment system.

Limestone channels are relatively inexpensive and they can last for 20 years before the limestone needs to be replaced if the water chemistry and flow rates are suitable. An automatically-flushing limestone drain system increases the life span by cleaning the limestone periodically and is also being examined as a treatment option.

Print subscribers may view color photos when newsletter is posted online at our website:
<http://www.scrippa.org/news.shtml>

The limestone designs will be sized to bring the pH up to 7, which will help precipitate the metals of concern (iron, manganese, and aluminum). These systems also release benign metals (calcium and magnesium) to the water, which decreases the toxicity of any remaining metals. These combined effects will significantly improve the discharge water and help restore Paint Creek to its former beauty.



Stonycreek discolored by Paint Creek's contribution to the stream

A Plan to Fix AMD&Art

by Jeffrey Chastel and Rebecca Peer

Vintondale AMD&Art is an acid mine drainage (AMD) treatment system located in Vintondale, PA, a small town that thrived during the coal era. The Vinton Colliery was in this town and was a key hub of the local coal mining industry. Unfortunately, once the mining industry deteriorated in the area, the Colliery was abandoned.

Inside the abandoned underground mine, ground water is reacting with pyrite, acidifying, and dissolving metals from the surrounding geology, notably aluminum. These waters, concentrated with toxic metals, are also known as AMD. As it flows into streams, AMD can form rust that coats stream beds while acidifying the water, killing small insects, poisoning fish, and destroying the base for a healthy stream ecosystem.

(continued on page 5)

The SFU Environmental Engineering students are under the direction of Dr. William Strosnider, Asst. Professor: Environmental Engineering, Director of Center for Watershed Research and Service, and SCRIP board member.

In an effort to reclaim the area and create a healthier living environment in Vintondale, a treatment system was created in 2004 (Seen to the right in its current state). T. Allen Comp, working with Jeanne Gleason and a group of experts, created a sophisticated design to treat the contaminated water at Vintondale, while creating an educational and recreational environment for the community. Realizing AMD is more than a purely scientific problem; Comp assembled his team of thinkers to include artists, scientists, and humanists to explore the opportunities for innovative AMD treatment. In order to create a system to meet the treatment needs for the AMD, they created a passive treatment system, relying on natural processes to make the water less acidic and to remove the metal contaminants.

This type of system has several benefits, including low operational and maintenance costs. Passive treatment systems also provide more design opportunities, and can create new opportunities for historical, natural, and scientific understanding.

This initial system failed due to the **team's decision to recycle the existing** coal waste in the construction of the treatment system as well as other design flaws. Unfortunately, by incorporating this coal waste, the system appears to further contaminate some water and lacks the hydrologic integrity for treatment.

For our senior project at Saint Francis University, we have chosen to redesign the entire treatment system. We chose this site because we had done previous sampling and characterization for another class and found the system to be in disrepair. We wanted to discover why the system was failing and how we could remediate the situation.

We continued to sample the site throughout this academic year and we have analyzed the water chemistry. In order for a new system to be created, the old system must be completely removed, including all of the coal waste used in construction and left on the site as decoration. We have chosen to create a design and a cost-estimate for a new passive treatment system that will scientifically treat the water to safe levels typically permitted by the Department of Environmental Protection.

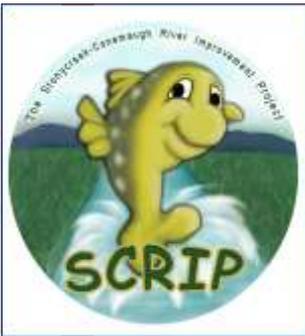
We decided to propose a new passive treatment system because the cost will be reduced and the longevity of the system will be increased as opposed to an active treatment system, where chemicals must be added continuously. Also, because of the prevalence of acid-generating mine waste in and around the current system, significant earthwork would need to be part of any solution.

The new system design will include a series of flow-through ponds with the goal of removing the metal contaminants and increasing the pH of the water. Natural materials such as compost and limestone will be used in the ponds to encourage these treatment goals.

The new system design also includes a larger recreation area for the citizens of Vintondale. The new design and cost estimate is to be completed in late April. After this is complete, the next step is to send our ideas to local interested parties, in search of interest in the remediation of this interesting site. The remediation of this site is particularly important to us, as the waste coal and poorly-treated AMD are polluting the Vintondale area and nearby Blacklick Creek, a trout bearing stream.



(Top): Vintondale AMD&ART stagnant treatment pond
(Middle): Vintondale AMD&ART dried up treatment pond
(Bottom): Waste coal pile adjacent to Blacklick Creek



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Make your check payable to SCRIP, or for a tax-deductible contribution, make the check to Southern Alleghenies Conservancy/ SCRIP.

* If you are not sure of your membership status contact SCRIP's secretary at mreckner@kcstreamteam.org or 814-444-2669.

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