

THE CATALYST

SLIPPERY ROCK WATERSHED COALITION MONTHLY ACTIVITIES UPDATE

THIS MONTH'S MEETING: Thursday 4/12/07 at 7 pm at Jennings Environmental Education Center, pizza and pop provided. 3/8/07 Meeting Attendance: J. Belgredan, S. Busler, C. Cooper, T. Danehy, C. Denholm, R. Donlan, M. Dunn, T. Grote, D. Johnson, V. Kefeli, B. Lubold, S. Smith, W. Taylor, S. VanDerWal



"Black Glaze" – Green Technology

Vessels to Sustain Watershed Restoration



Fifteen passive treatment systems have been constructed within the Slippery Rock Creek Watershed to combat the effects of approximately 30 abandoned mine discharges that degrade our streams. These passive treatment systems remove dissolved metals from the water using natural materials such as limestone and compost. The metals form solids that are collected in the passive treatment systems. The sooty black mineral formed within the limestone beds of some passive treatments systems in the Slippery Rock Creek Watershed is called todorokite, which contains about 50% manganese. Participants in the Slippery Rock Watershed Coalition are in the process of developing methods to recover this manganese ore.

Manganese, in the form of the material collected from the mine drainage, is commonly used as a colorant in different glazes for pottery. When local potter **Robert Isenberg of The Pottery Dome (Mercer, PA)** was approached by Slippery Rock Watershed Coalition participant **Kyle Durrett** with the concept of using some of the manganese in his pottery glazes, he was immediately interested. Robert Isenberg feels that making good use of the recovered manganese is a worthwhile endeavor. The largest request for this new glaze has come from the **North Country Brewing Company** located in downtown **Slippery Rock, PA**.

The **North Country Brewing Co.** has a yearly "Mug Club" where patrons can purchase one of **300 (!!!)** handmade mugs that they can use as their own personal mug that resides at the brewery. Each mug holds slightly more than one pint and is unlike any other mug in size, shape, and glaze. North Country Brewing supports many local grassroots organizations and is graciously **donating 5% (!!!!!) of the profits from sales of the new mugs to the Slippery Rock Watershed Coalition** to benefit long-term maintenance on the passive treatment systems in the watershed. These highly-anticipated new mugs will be available soon. They are sure to go fast so don't wait till they are gone!

The Slippery Rock Watershed Coalition would like to thank **North Country Brewing** for their generous support. To learn more about the **North Country Brewing Company**, check out their website at www.northcountrybrewing.com or stop in and enjoy a light snack or some "sturdy traditional food" at **141 South Main Street, Slippery Rock, PA**. The Coalition would also like to thank **The Pottery Dome** and **Robert Isenberg** for helping to promote this truly GREEN technology! To learn more about the award-winning art and the artist **Bob Isenberg**, visit **The Pottery Dome (www.potterydome.com) on the Leesburg–Grove City Road (State Route 208)** just 2 miles west of the Grove City Outlet Shops.



Above Left: Local businessman and North Country Brewing Co. host Bob McCafferty shows off a few of the new "Mug Club" mugs that incorporate manganese in the glaze recovered from passive treatment systems located in the Slippery Rock Creek Watershed. **Above Right:** Local artist and potter Robert Isenberg shows how he created 300 unique hand-thrown mugs at The Pottery Dome in Mercer, PA.



Shaun Busler, SRWC participant, is shown doing field work for the Blacks Creek assessment and implementation plan. Shaun checks rocks during a macroinvertebrate inventory (Left) and shows the location of an abandoned underground mine (Right), indicated by subsidence. See article on back page.

New Spring Research at Grove City College

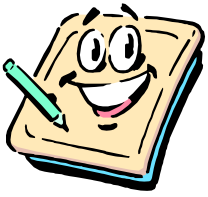
Richard Cattley, a junior at **Grove City College** who is majoring in Biology, will be assessing the water quality of Wolf Creek around the Grove City campus as part of an independent research program. Supervising Richard’s work is **Dr. Fred Brenner**, a professor of Biology and participant of the **Slippery Rock Watershed Coalition**. Richard will be sampling for chemical parameters as well as biodiversity in order to determine the quality of the stream locally. The newly-collected data will then be compared to data from the late 1970s and early 1980s in order to compare how the stream is doing today in relation to the past. Some of the sampling locations will include above and below the water treatment plant located near the college. Other sampling points will be further upstream and north of I-80. We look forward to learning about Richard’s findings and plan to share them in a future Catalyst issue!

PA Environmental Digest Showcases Westminster Students’ Research Presentations

An article highlighting 19 Westminster College students’ research of AMD treatment sites was featured in the PA Environment Digest on March 9, 2007! The chemistry and biochemistry students presented their research findings at a monthly meeting of the Slippery Rock Watershed Coalition. The article can be viewed via the PA Environment Digest at www.paenvironmentdigest.com. Thank you, PA Environment Digest for recognizing the importance of student involvement in the environmental research process and showing their hard work and accomplishments! (The PA Environment Digest is a weekly online update featuring written articles and short videos highlighting environmental issues in Pennsylvania.)

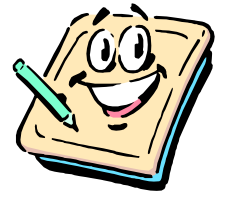
Women in Science at SRU and Kyle Durrett

“Women are valued and respected as educators and scientists at SRU.” This comment from **Tamra Schiappa**, geology professor at **Slippery Rock University**, is backed up statistically by the fact that SRU employs high percentages of women faculty—twice the national average in some departments! **Kyle Durrett**, participant of the **SRWC**, can attest to it—he is a student at SRU who has studied under the tutelage of several female professors. In the Winter 2007 edition of “**The Rock**” magazine, Kyle is pictured working in a female educator’s class in the article “Women Faculty Serve Critical Mentoring Role for Students.”



The KIDS Catalyst

SLIPPERY ROCK WATERSHED COALITION FUN ACTIVITY



Spring is "Shaping" Up

Nature "springs" back to life this time of the year—it's spring! Hibernating animals wake from their restful winter slumbers, migrating birds return from their warmer winter "vacation" spots, flowers bloom with beautiful colors and wonderful scents, insects creep, hop, and fly all around us, the trees are green again... Pennsylvania is blessed with an amazing variety of life in nature! The large square below contains many shapes each with the name of a bird, tree, mammal, flower, or insect we can usually see in the spring. You need to put each name into a category to color each shape according to the key below. You can even try to find all of these things in your backyard, neighborhood, park, etc.! If you mail us your completed paper, we will send you a free gift certificate!

Bird = yellow

Tree = green

Mammal = blue

Flower = purple

Insect = red

Name _____ Age ____ Address _____



Slippery Rock Watershed Coalition c/o Stream Restoration Incorporated
A PA Non-Profit Organization
3016 Unionville Road
Cranberry Twp., PA 16066

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Thanks to The William & Frances Aloe Charitable Foundation, Environmentally Innovative Solutions, LLC, Dominion Peoples, Amerikohl Mining, Inc., Quality Aggregates Inc., Drs. Ron & Kathy Falk Family, BioMost, Inc., Allegheny Mineral Corporation and PA DEP for their support. For more information contact: Slippery Rock Watershed Coalition, c/o Stream Restoration Incorporated (PA non-profit), 3016 Unionville Road, Cranberry Twp., PA 16066, (724)776-0161, fax (724)776-0166, sri@streamrestorationinc.org, www.srwc.org. April distribution: 1332

Restoring Blacks Creek

The SRWC is pleased and very excited to report that the assessment and implementation plan for the 9-sq. mi. Blacks Creek Watershed is nearing completion! This plan builds upon the more extensive **2006 Slippery Rock Creek Watershed Assessment and Restoration Plan** spear-headed by **Beran Environmental Services, Inc.** (Boyers, PA) with support from **Confluence Ecological, PA DEP Growing Greener Program, and the Butler County Commissioners**. In addition, abandoned mine restoration projects have been recently completed in the Blacks Creek Watershed by the **PA DEP Bureau of Abandoned Mine Reclamation and the Knox District Office;**

Aquascape; Quality Aggregates, Inc.; SRWC; and others. A major tributary to Slippery Rock Creek, Blacks Creek is primarily in Butler County with a small portion extending into Venango County and is located just downstream of the 27-sq. mi. area, which has been the focus of the SRWC's restoration efforts for more than a decade.

Shaun Busler and **Cliff Denholm** of Stream Restoration Inc. greatly appreciated the opportunity to inventory the abandoned mine discharges throughout the watershed and to develop a restoration plan. Many abandoned mine features were observed throughout the watershed: spoil piles, coal refuse piles, highwalls, subsidence, and water-filled surface mine pits. The impairment of Blacks Creek from AMD is evident and the main goal of this plan is to improve the stream quality and the aquatic ecosystem. The support of the **US EPA** and the **PA DEP Bureau of Watershed Management** in the efforts to restore Blacks Creek is greatly appreciated!



Cliff Denholm takes a water sample from one of many water-filled pits