

THE CATALYST

SLIPPERY ROCK WATERSHED COALITION MONTHLY ACTIVITIES UPDATE

NEXT MEETING: 7 pm on 7/14/16 at Jennings Environmental Education Center, pizza and pop provided. No May and June meetings due to conflicting events.

Exciting News!!!!!!

De Sale Restoration Area Profiled on “CLU-IN” Website Sponsored by the US EPA

It's hard to believe that over 15 years ago, as part of an SRWC broad-based, public-private partnership effort, three passive systems were installed to treat highly-acidic discharges from old surface coal mines at De Sale, Butler Co., PA. The systems were designed to treat flow rates varying from 12 to over 200 gpm having a 3 pH and with 10 to 100 mg/L total iron, 50 to 100 mg/L total manganese, and 8 to 20 mg/L total aluminum. We are very pleased to say that these systems, with only limited maintenance, have dramatically improved Seaton Creek, a major tributary in the headwaters of the 408-square mile Slippery Rock Creek Watershed. The original installation and maintenance of these systems as well as the subsequent research conducted would not have been possible without the project partners including the PA Department of Environmental Protection and the more than 10 landowners; 10 local, state, and federal government agencies; 10 mining-related companies; 6 academic institutions; and 5 non-profits. (*Check out www.datashed.org for water monitoring data.*)

To add to the excitement, the **De Sale Restoration Area was the “Featured Site-Specific Profile” on the “CLU-IN” Green Remediation Focus webpage (clu-in.org/greenremediation) for the month of May!!!!** The “CLU-IN” website feature, which stands for “Contaminated Site Cleanup Information”, detailed the clean-up objectives, green remediation strategy, and results for the De Sale Restoration Area, located in the 10.4-square mile Seaton Creek Subwatershed. In addition, further information about the De Sale Restoration Area is provided on the webpage (clu-in.org/greenremediation/profiles), which showcases 34 sites nationwide, including two sites in Pennsylvania, the Havertown PCP Site, a Superfund NPL site in Havertown, PA and the De Sale Restoration Area.

The detailed profile mentions that mining has been conducted for over a century in the watershed and provides background information about the site as well as describes the partnership effort in the vegetation of wetlands with select native plants; reuse with revision of previously-constructed treatment ponds; reuse of Jersey barriers to protect a constructed treatment wetland and access road; use of spent mushroom compost made mostly of waste materials; and recovery of manganese and iron oxides for use by local and regional ceramic artists, etc.

Also featured in the profile is an Image Gallery with 9 photographs that generally depict site conditions before, during, and after construction, such as before-and-after at the De Sale Phase I site and the wildflowers in the De Sale Phase II treatment wetland.





Cliff Denholm, Shaun Busler, Margaret Dunn, Dan Guy, Buck Neely, Ryan Mahony, and Tim Danehy (left to right) pose for a photo on top of an oversized Radio Flyer Wagon slide at the Riverfront Park in Spokane, WA, which was located a few blocks from the convention center where ASMR was held.

2016 ASMR Conference — A Wonderful Event in Spectacular Spokane

The 33rd annual meeting of the American Society of Mining and Reclamation was held June 4-9 in beautiful, historic Spokane, Washington. Over 100 attendees from across the USA, and from several other countries, took part in this year's conference, including **Margaret Dunn, Tim Danehy, Cliff Denholm, Shaun Busler, Ryan Mahony, Buck Neely, and Dan Guy** from Stream Restoration Inc. and the SRWC.

Technical sessions were divided into categories with reclamation-based themes relating to water quality, mapping/GIS, challenging environments, international efforts, long-term evaluation, technological advancements, revegetation, drones and UAV's, ecological implications, etc. Many folks from the SRWC gave presentations. Shaun's presentation entitled "Case Study: Baird Wetland Mitigation" described the 14-acre (!!!) wetland replacement project in the Slippery Rock Creek Watershed which has, as one of its goals, the creation of habitat for the endangered Massasauga rattlesnake. Cliff's presentation entitled the "Long-Term Effectiveness of Three Passive Systems Treating Acidic, High-Metal, Abandoned Coal Mine Discharges Near DeSale, PA", described the maintenance needed and successful performance of 3 passive treatment systems in the Slippery Rock Creek Watershed, that have been online for over 15 years!!! Tim spoke on "Trompe Design, Construction, and Performance," sharing details on this unique way to passively generate compressed air to aerate mine drainage during treatment. Ryan and Dan's presentation was about "Restoration and Power Generation in the Slippery Rock Creek Watershed" while Buck presented on the "Implementation of Two Passive Treatment Systems in Northern West Virginia."

In addition to sharing information, the gang from the SRWC also enjoyed learning about the valuable reclamation efforts of many others. It was interesting to see the unique challenges and solutions to reclamation work posed by groups and individuals from varying geographic locales. We'd also like to recognize this year's three "Living Legends", individuals in the field of mine drainage treatment and mineland reclamation who have invested a lifetime making a difference and leading by example and hard work for future generations: **Kimery Vories** (Colorado), **Jerry Schuman** (Wyoming), and **Art Rose** (Pennsylvania)!

Of course, there was also time for a little exploring and adventure! The SRWC group traveled to some breathtaking sites, including Palouse Falls, the official waterfall of Washington State; and beautiful Coeur d'Alene, Idaho, at one time a large silver mining town. One of the more memorable events was an exciting zipline adventure at Mica Peak, where the longest zipline was 1500 feet with speeds reaching 50 MPH!!!!

Plan to attend next year's joint conference with the **WV Mine Drainage Task Force, Appalachian Regional Reforestation Initiative, and ASMR to be held April 9 - 13, 2017 in Morgantown, WV**. "There is something for everyone." Details regarding field trips, workshops, and fun activities will be announced in future issues of *The Catalyst*!!!



The KIDS Catalyst

SLIPPERY ROCK WATERSHED COALITION FUN ACTIVITY

Summer Scrambler



Summer is here! Below are some scrambled up words that have to do with summer. Use the clues to write the word on each line. Choose one of the sentences to draw a picture in the frame at the bottom of the page. If you send us your paper, we will mail you a free gift certificate! And maybe your drawing will even appear in a future issue of the Catalyst!

1. We celebrate _____ Day on July 4th with parades, picnics, and fireworks!
CEEDENIEDNPN
2. The _____ is a fun insect to catch in a jar at night because part of its body lights up.
LFIRFYE
3. The _____ is one of the first birds to sing in the morning and one of the last at night.
BONIR
These birds eat earthworms, fruit, and insects.
4. This hopping mammal likes to eat the flowers and vegetables in your summer gardens! _____
RTBABI
5. You might catch trout, perch, and bass if you try _____.
HGNIFSI



Name _____ Age _____ Address _____
 _____ Parent's email _____



Slippery Rock Watershed Coalition c/o Stream Restoration Incorporated
 A PA Non-Profit Organization
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Highlighting Other Partnership Efforts (HOPE!) Independence Conservancy

We congratulate Independence Conservancy on their recent \$10,000 unrestricted **President's Choice Grant Award** from the **Washington County Community Foundation** to help establish the **Langeloth Valley Conservation Area near Burgettstown!** This conservation area will permanently preserve 73 acres of woodlands, wetlands, and streams south of the former American Zinc & Chemical Co. smelter site. Noting her strong support for conservation and environmental preservation, WCCF's President **Betsie Trew** noted that Independence Conservancy has stepped up to fill a void in land stewardship in Washington County and its work to mitigate mine and industrial threats to water supplies "impacts every living creature within the (Raccoon Creek) Watershed."



Independence Conservancy has achieved over \$1.5 million of environmental reclamation and land preservation since its founding in 1999. With the help and on-going commitment of community partners, landowners, volunteers, and others including **co-founder Vicky Michaels**, the Conservancy tirelessly strives to fulfill their vision to protect and conserve land in the Raccoon Creek Region in perpetuity.

For instance, through a recently-awarded Growing Greener grant as part of a public-private partnership effort, the Independence Conservancy will be able to re-shape and stabilize about 900 feet of eroding streambank along the Conservancy's property on Raccoon Creek Road in the heart of the Raccoon Creek Greenway. Once completed, the **Raccoon Creek Bank & Buffer Project** will feature native plants, trees, and shrubs, as well as areas where people can easily reach the waters of Raccoon Creek for fishing, swimming, and other recreational opportunities.

Independence Conservancy Vice-Chairman **Peg Schweinsberg** and board member **Gary Stokum** accept the President's Choice Award.

Congratulations!!!!