

THE CATALYST  
SLIPPERY ROCK WATERSHED COALITION MONTHLY ACTIVITIES UPDATE

**NEXT MEETING:** 7 pm on 1/10/13 at Jennings Environmental Education Center, pizza and pop provided. December meeting cancelled. 11/8/12 meeting attendance: C. Denholm, M. Dunn, V. Kefeli, B. Kuban, W. Taylor, F. VanOtto

**December SRWC Meeting Cancelled!!!**

There will be no meeting of the SRWC in December. Happy holidays! We look forward to seeing you in 2013 at our next meeting, Thursday, January 10 at 7 pm. Make it a New Year's resolution to check out an SRWC meeting and learn what exciting things are happening in the watershed! All are welcome! Did we mention the free pizza and soda?!

**Colcom Grant to Fund Monitoring with Sondes**

The Slippery Rock Watershed Coalition, in cooperation with Stream Restoration Incorporated, is excited to announce that funding has been received for the purchase of water quality sondes for the Slippery Rock Creek Watershed through a **Colcom Foundation** grant. The data resulting from the use of the sondes will provide valuable and much needed water quality information to identify future improvements or degradation.

SRI has a demonstrated track record of addressing the legacy of abandoned mine drainage problems in the Commonwealth of Pennsylvania and working with industry to prevent future problems. The same partnership approach, we believe, will help us address any potential issues with the emerging gas industry. As of a short time ago, 10 wells had been drilled in the Marcellus or Utica Formations within the 408-square mile watershed.

The use of conductivity-temperature-depth (CTD) sondes is a cost effective and efficient method to collect water quality data on a continual basis. The Colcom grant will allow the SRWC to place up to 20 CTD sondes throughout the watershed to cover the main stem and all major tributaries. The conductivity measurement can be useful in depicting the general quality of the stream. In addition to the CTD sondes, three multi-parameter sondes will be used as mobile units to be placed for extended periods in stream segments of concern and within passive treatment systems. These multi-parameter sondes, which measure pH, ORP, and DO, are more expensive to operate and require higher maintenance than the CTD sondes. This combination of sondes balances the usefulness of the additional parameters with the higher costs of operating and maintaining the devices.

The data will be downloaded by volunteers and students on a monthly basis in a monitoring program to be modeled after the successful Adopt-a-Passive-Treatment-System program coordinated by **Cliff Denholm** (SRI) and **Wil Taylor** (Center Manager, Jennings Environmental Education Center, PA Department of Conservation and Natural Resources). We are also excited to involve three local colleges/universities in this sonde use and monitoring initiative. **Grove City College** (**Dr. Fred Brenner**, Biology Department), **Slippery Rock University** (**Dr. Patrick Burkhart**, Geology Department), and **Westminster College** (**Dr. Helen Boylan**, Chemistry Department) have agreed to share their expertise in this project, while also providing their students an interesting and worthwhile hands-on learning experience.

The SRWC and SRI wish to express their thanks to the Colcom Foundation for making this new monitoring approach possible! To learn more about the Colcom Foundation and their commitment to supporting environmental sustainability, visit their web site at [www.colcomfdn.org](http://www.colcomfdn.org). If anyone is interested in volunteering for this project, please email us at [sri@streamrestorationinc.org](mailto:sri@streamrestorationinc.org).



A student presentation at the **Westminster College/SRWC Student Symposium** held at Westminster College on 12/6/12. More next month...

### **Get Outdoors for Winter Fun at Jennings!**

If you're one of those people who don't like to stay inside and hibernate all winter, Jennings Environmental Education Center is offering several fun outdoor activities in the months of January and February. All are welcome, so check out the upcoming wintertime events and consider signing up! There's always fun, hands-on learning for all ages at Jennings! Space is limited for each program session, so don't wait too long to register! Please register online at <http://www.dcnr.state.pa.us/Calendar> by following the link to the appropriate program at Jennings, or call **724-794-6011**.

#### **Winter Trails Day: Saturday, January 12, 2013.**

**Cross-Country Skiing:** A fun-filled day of cross-country skiing for beginners, from 10:00 AM until 12:00 PM (morning session) or 1 PM to 3 PM (afternoon session). This program, for ages 12 and up, will include an introduction to cross-country skiing, basic instruction and guided skiing on Jennings trails. Equipment for this program will not be provided. Participants must bring and use their own cross-country ski equipment. This program will take place with or without snow. **Snowshoeing:** A fun-filled day of snowshoeing for beginners, from 10 AM until 12:00 PM (morning session) or 1 PM to 3 PM (afternoon session). This program, for ages 8 and up, will include the history of snowshoes, a complete introduction to the sport of snowshoeing and a winter activity hike on snowshoes. Equipment will be provided, although personal equipment is welcome. Please register for this session by January 9, 2013.

#### **Prairie Improvement Day: Saturday, January 19, 2013.**

Shake off those mid-winter blues by pitching in at Jennings Environmental Education Center from 9 AM until 1 PM for the annual Prairie Improvement Day. The Jennings staff is looking for individuals willing to spend a Saturday morning outdoors to help manage the unique prairie ecosystem. For lunch, generous local restaurants will provide plenty of warm, hearty soup. Each participant will receive a commemorative soup mug as a special thank-you. Participants must be age 12 or older and should dress for the weather, including gloves and warm, waterproof boots. A special learning and volunteering experience for Girls Scouts and Boy Scouts from the Junior Girl Scout and Webelo Scout ages/levels and up called "**Scout Stewards**" will be held **Sunday, January 20 from 9 AM until 12 PM**. Scouts will discover the importance of maintaining resources on public lands, and participate in a volunteer project to help the park. Additional information can be found online.

#### **Crystalline Wonders: The Incredible World of Snow—Sunday, February 10, 2013.**

Winter will be upon us, with the land glistening white and snowflakes falling from the sky. Join Jennings staff to discover the untold story of the tiny snowflake. From formation and identification to stories from the past, see how these tiny ice crystals have made such an impact on our lives and culture. 2 PM to 3:30 PM.



# The KIDS Catalyst

SLIPPERY ROCK WATERSHED COALITION FUN ACTIVITY



## December Word Search

December is a fun month, and we hope you have fun doing this word search! Try to find all 24 words hidden in the puzzle below, and circle them. If you mail us your completed paper, we will send you a free gift certificate!

DECEMBER	SNOWMAN	ICICLES	REINDEER
WINTER	SLED	DECORATIONS	VACATION
CHRISTMAS	ICESKATES	LIGHTS	SNOWMAN
COLD	SCARF	PRESENTS	ANGEL

D	E	C	C	O	R	D	E	R	M	O	N	C	O	O	K	I	E	S	M	A	R	C
I	O	L	S	N	O	W	M	A	N	E	M	O	I	E	U	X	L	C	A	U	V	A
M	I	R	T	P	H	A	H	O	L	I	G	L	H	T	V	A	C	A	T	I	O	N
Y	U	S	N	O	I	T	A	R	O	C	E	D	L	E	T	I	D	R	G	R	E	D
E	M	T	E	Y	N	G	S	O	F	L	O	C	O	M	F	A	J	F	O	C	P	Y
M	R	A	S	R	A	K	R	E	S	C	L	I	G	H	T	S	C	H	I	A	S	C
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Y	W	M	C	O	L	M	M	A	T	N	D	T	H	A	Y	O	L	C	U	S	L	B
S	O	T	A	R	L	V	Q	U	I	X	K	P	O	J	E	B	A	E	R	V	E	P
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T	S	L	O	E	R	E	D	A	S	A	N	V	I	U	O	R	L	B	A	S	N	O
V	I	O	T	L	L	E	Q	T	R	W	O	E	A	C	X	W	R	E	A	T	H	C
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W	A	C	T	C	X	I	C	E	S	K	A	T	E	S	C	H	O	C	V	A	C	A
M	I	T	S	N	O	T	I	O	N	S	N	O	R	M	R	E	E	D	N	I	E	R

Name \_\_\_\_\_ Age \_\_\_\_\_

Address \_\_\_\_\_



Slippery Rock Watershed Coalition c/o Stream Restoration Incorporated  
A PA Non-Profit Organization  
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ORGANIZATION  
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## **Passive Treatment System at Jennings Gets a Much-Needed Makeover!**

Rewind the clocks to the year 1997. The average price of gas was \$1.36. Interleague play began in major league baseball. Titanic was the top grossing movie. And the vertical flow pond, a component in the passive system at the Jennings Environmental Education Center, was first installed — nearly 15 years ago! It was predicted to generate sufficient bicarbonate alkalinity to effectively treat acidic mine drainage from an old abandoned underground coal mine for 7 to 10 years. With minor maintenance, this innovative VFP with a “first-of-its-kind” treatment media “recipe” far exceeded performance expectations. After almost 15 years of operation, however, the loss in permeability of the treatment media resulted in the inability of the VFP to treat all of the influent AMD. As the permeability issue continued to worsen, more and more untreated AMD was passing through the emergency spillway and into a forested area. The lush, created wetlands with flourishing wildlife habitat which are used in environmental education programs became in imminent danger of being lost, as these wetlands are fed by the treated VFP effluent.

To eliminate these and other environmental impacts, an extensive rehabilitation of the VFP was completed this fall. The work was done primarily by **Buck Neely** and **Ryan Mahony**, with occasional help from **Bryan Page**, **Shaun Busler**, and **Kelsey Palmer**, all of SRI and the SRWC. This rehabilitation was made possible thanks to grants from the **US Office of Surface Mining, Foundation for Pennsylvania Watersheds**, a Quick Response grant via **WPCAMR** and **PA DEP** (Growing Greener), funding from the **PA Dept. of Conservation and Natural Resources**, and the very generous donation of Mineral CSA from **HARSCO Minerals**. In-kind contributions were also received from **volunteers** and **BioMost, Inc.** The rehabilitation consisted of (1) removing, placing, and encapsulating (with alkaline material) the spent treatment media, (2) replacing the underdrain (piping and aggregate), (3) replacing/rehabilitating VFP inlet and outlet piping and other ancillary piping, and (4) replacing the VFP treatment media. Due to advancements in technology, the underdrain piping is now of a larger diameter and single-shredded wood chips were added to essentially the same treatment media “recipe” of spent mushroom compost and “hi-cal” limestone aggregate.

The expected results are the restoration of the VFP treatment performance with a similar or greater design life with even less maintenance, the sustainability of the created wetlands, and the elimination of negative impacts to the forested area and receiving stream. We look forward to working with partners in the future monitoring and care of the system and educational outreach opportunities: **Jennings Environmental Education Center, SRWC, Stream Restoration Inc., BioMost, Inc., Boy Scouts, volunteers, and others.**

**“Stay tuned....”**